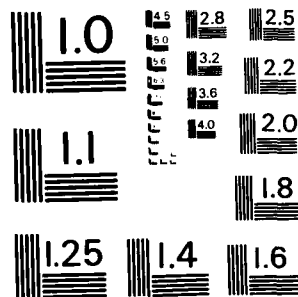


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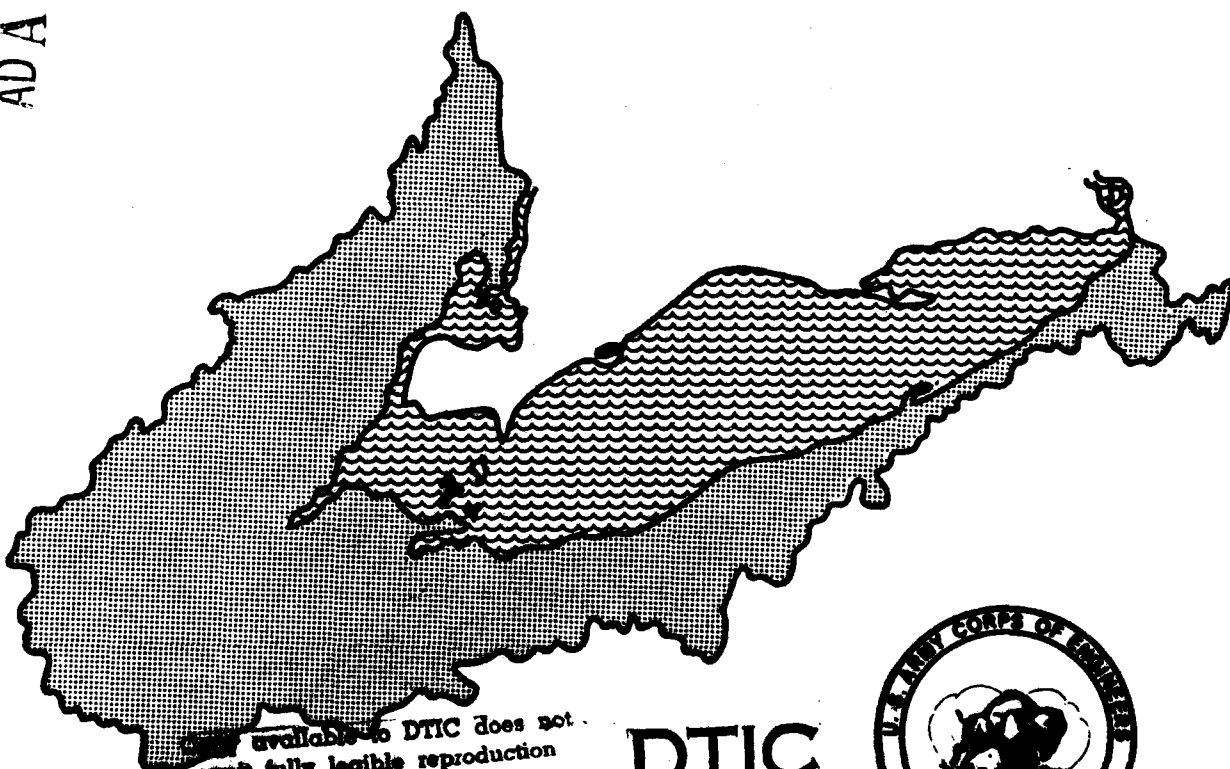
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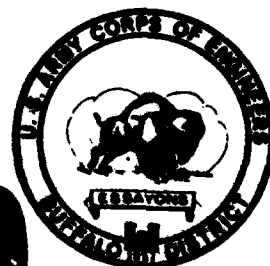
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PREPARED FOR THE  
LAKE ERIE WASTEWATER  
MANAGEMENT STUDY

U.S. ARMY ENGINEER DISTRICT, BUFFALO

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| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number)<br><br>This program was designed to monitor concentration changes occurring in association with increased streamflow with primary emphasis placed on sampling during high flow conditions (when the bulk of mass transport occurs). This report presents the authors' best estimate of the loadings for several nutrients to Lake Erie using collected data. A Calculational procedure employing stepwise concentration functions for fixed flow intervals was developed. Intervals which best represented the full range of streamflows were selected and used in |                       |                                                                |

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Lake Erie Nutrient Loads, 1970-1980

by

Stephen M. Yaksich  
and  
David A. Melfi

Lake Erie Wastewater Management Study  
U. S. Army Corps of Engineers  
Buffalo, NY 14207

and

David B. Baker  
and  
Jack W. Kramer

Water Quality Laboratory  
Heidelberg College  
Tiffin, OH 44156

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U. S. Army Corps of Engineers District, Buffalo  
1776 Niagara Street  
Buffalo, NY 14207

September 1982

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The U. S. Army Corps of Engineers, Buffalo District, and the U. S. Environmental Protection Agency, through both the Environmental Research Laboratory at Athens, Georgia, and the Great Lakes National Program Office, provided joint financial support for the water quality sampling program. The authors would like to express their appreciation to the staff of the agencies who collected and analyzed the water quality samples. These agencies include: the Water Quality Laboratory, Heidelberg College; the Michigan Department of Natural Resources; the Toledo Metropolitan Council of Governments; the city of Cleveland; and the Geology Department, State University College of New York at Fredonia. The Ontario Ministry of the Environment graciously supplied water quality and flow information for the Canadian streams while the U. S. Geological Survey provided discharge information and some water quality data for the major Lake Erie streams. Bruce Wallace was instrumental in the original compilation of the point source file from EPA and State agency records along with the International Joint Commission reports on the Great Lakes water quality. Davis Kraus and Darlene Rowen provided valuable assistance in updating the point source file for recent years.

## ABSTRACT

The Buffalo District, Corps of Engineers' Lake Erie Wastewater Management Study and Heidelberg College's Water Quality Laboratory supported a tributary water quality monitoring program from 1974 to 1980 of the major United States tributaries to Lake Erie. For selected streams, sampling stations were established at the furthest downstream U. S. Geological Survey flow gaging station. This program was designed to monitor concentration changes occurring in association with increased streamflow with primary emphasis placed on sampling during high flow conditions (when the bulk of mass transport occurs). This report presents the authors' best estimate of the loadings for several nutrients to Lake Erie using collected data. A calculational procedure employing stepwise concentration functions for fixed flow intervals was developed. Intervals which best represented the full range of streamflows were selected and used in conjunction with the daily flow records and the concentration functions to calculate monthly loadings. Loadings for unmeasured areas were extrapolated from the loadings for adjacent areas. The loadings were then combined with municipal and industrial point source loading information and Lake Huron outflow data to produce a point, nonpoint, and total nutrient load summary for the Detroit-St. Clair Basin and the three basins of Lake Erie on a monthly and yearly basis for the period 1970-1980. The nutrient loadings presented include total phosphorus, orthophosphate, nitrite-nitrate, ammonia, organic nitrogen, chloride, and silica. A three-basin, in-lake, total phosphorus model is presented and in-lake concentrations are modeled using the calculated 1970-1980 loadings. The results are compared with measured in-lake values.

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1. The first of these is the fact that the majority of the population of the United States is of European descent. This is a fact which is often overlooked in discussions of the history of the United States. It is true that the United States has a long and diverse history, but it is also true that the majority of the population is of European descent. This fact has a profound influence on the culture, politics, and social structure of the United States.

2. The second of these is the fact that the United States is a young country. It is only about 200 years old, and it has a long and turbulent history. This fact has a profound influence on the culture, politics, and social structure of the United States. It is a young country, and it is still in the process of developing its identity.

3. The third of these is the fact that the United States is a large country. It is the third largest country in the world, and it has a long and diverse history. This fact has a profound influence on the culture, politics, and social structure of the United States. It is a large country, and it is still in the process of developing its identity.

4. The fourth of these is the fact that the United States is a diverse country. It has a long and diverse history, and it has a large and diverse population. This fact has a profound influence on the culture, politics, and social structure of the United States. It is a diverse country, and it is still in the process of developing its identity.

5. The fifth of these is the fact that the United States is a powerful country. It is a major power in the world, and it has a long and diverse history. This fact has a profound influence on the culture, politics, and social structure of the United States. It is a powerful country, and it is still in the process of developing its identity.

## INTRODUCTION

Public Law 92-500 authorized the U. S. Army Corps of Engineers to develop a wastewater management program for Lake Erie. The study identified the development of reliable nutrient loads to the lake as a major task. During the initial stage, a close examination of existing water quality records for the major Lake Erie tributaries was made. A program of bimonthly sampling had been carried out on the south shore tributaries from 1967 to 1969 by the Federal Water Pollution Control Agency (FWPCA 1969). State and provincial agencies carried out monthly sampling programs on some tributaries and the U. S. Geological Survey (USGS) also sampled some tributaries monthly. These programs with the exception of FWPCA's, were designed to monitor ambient water quality and not the mass transport of nutrients to the lake. The FWPCA report concluded, "Widely variable flow conditions were encountered at the time of sampling. Generally, concentrations did not show consistent changes with changes in flow; however, major loadings did occur during high discharges. The limited frequency of sample collection, particularly during periods of high flow, could bias the data."

Many agencies report total phosphorus loads to Lake Erie based upon the monthly sampling. Rarely are the loadings for other parameters reported. Total phosphorus loads to Lake Erie are reported annually by the Water Quality Board of the International Joint Commission. Each political jurisdiction reports tributary, municipal, and industrial loads. However, the sampling programs for the tributary loading estimates are often inadequate. Usually 12 samples per year are collected, sometimes more, but usually less. Sampling programs at these frequencies are likely to underestimate the annual loads because most of the phosphorus transport

occurs within a few days of high flow and these events are not usually sampled (Yaksich and Verhoff 1983). Since 1980, the Great Lakes National Program Office has supported event sampling programs which supplement the local jurisdictional data. Sampling frequencies have recently increased for some Canadian tributaries.

An event sampling program was established by the Lake Erie Wastewater Management Study in the fall of 1974. This sampling program documented established tributary loading to the lake and the data were used to define nutrient loads to Lake Erie as presented within this report. These loadings are the authors' best estimate for several nutrient parameters. These parameters were chosen primarily because they are important to the lake's welfare and also because they were needed to interface with lake modeling efforts carried out at Manhattan College under the sponsorship of the USEPA's Large Lakes Laboratory at Grosse Isle, Michigan.

## SAMPLING STRATEGIES AND ASSOCIATED ERRORS FOR LOADING ESTIMATES

For event response rivers, such as those draining into Lake Erie, most of the nutrient and material transport occurs during storm events and the spring runoff period. Some materials such as total phosphorus and suspended sediment increase in concentration with increasing flow, while others such as chloride tend to decrease with increasing flow. Other nutrients such as the nitrogen species show no definite relationship to changes in flow, although they may show some increase for increasing flows. Even where nutrient concentrations decrease with increasing flow, the nutrient loading increases since the relative increase in flow is much greater than the relative decrease in concentration. Figure 1 shows the resultant total phosphorus transport for a storm event. It is during the high flow events that the bulk of the material transport to Lake Erie takes place. Hence, it is imperative to have good sampling during this period in order to accurately define the nutrient transport.

### Fixed Interval Sampling

The monthly sampling programs carried out by most agencies in the U. S. are examples of fixed interval sampling. In these programs, water quality samples are taken at predetermined times, at intervals such as once or twice a month. Treunert et al. (1974) examined the effect of sampling frequencies on the determination of the annual phosphorus load of small to moderate streams (Wahnbach River in Germany) with low flows and no relationship between total phosphorus concentration and flow (stable response river). They examined sampling frequencies of 1 to 29-day intervals between measurements. They also examined four different averaging methods to determine

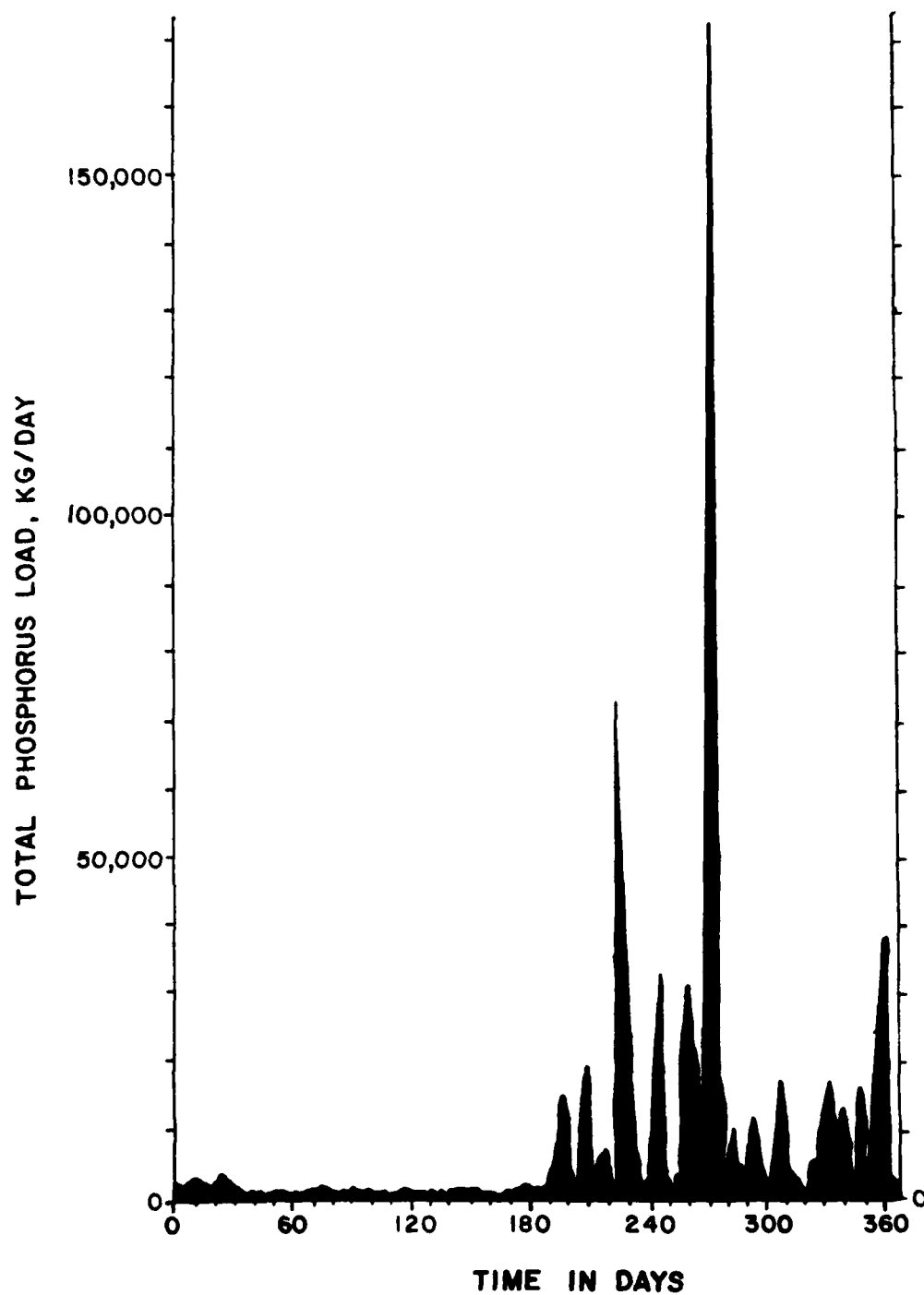


Figure 1 - Daily Total Phosphorus Loads in the Maumee River at Waterville, 1975.

annual loads. They concluded that use of continuous flow measurement by means of a level recorder leads to annual total phosphorus loads two to four times more accurate than discontinuous flow measurements with a simple measuring weir. In addition, they concluded that sample intervals of 14 to 21 days (17 to 26 samples/year) and continuous flow measurements with a level recorder are required to keep deviations within 20 percent of the reference value.

In contrast to the above results, Hetling, et al. (1976) concluded that a fixed interval sampling is of little value to obtain annual loads unless daily or every other day samples are taken. With sample intervals of 14 to 21 days (17 to 26 samples/year) deviations of 700 percent were obtained for particulate phosphorus and 1,700 percent for suspended sediment for an event response river. They further concluded that a sampling strategy based on sampling high flow events was necessary to obtain reliable annual loads for an event response river.

#### Event Sampling

Yaksich and Verhoff (1983) examined high flow sampling strategies for event response rivers in the Lake Erie Basin (Maumee, Portage, Sandusky, and Huron Rivers). They examined total phosphorus, soluble reactive phosphorus, and sediment transport. They recommended a sampling program that included two to three of the largest events with 15 to 20 grab samples collected over each hydrograph, and an additional 5 to 10 samples collected during steady flow. They concluded that this program would yield a load estimate with an error of 10 to 20 percent. They also determined that if high flows were not sampled loads would be underestimated by 15 to 30 percent.

## LAKE ERIE WASTEWATER MANAGEMENT STUDY WATER QUALITY SAMPLING PROGRAM

A review of current research into river system chemical dynamics indicated that a significant new understanding of mass transport of pollutants had been developed. Two major studies, one in the Sandusky River Basin of Ohio (Baker and Kramer, 1973) and the other in the Brandywine River Basin of Pennsylvania (Cahill, et al. 1974) had utilized a sampling program of synchronized flow and chemical measurement at selected river sampling stations in an effort to develop accurate mass transport over a period of a year. By concentrating on the measurement of chemistry during storm runoff, these studies indicated that a significant portion of the total chemical pollutant transport out of a river system occurred during periods of high flow. More importantly, they showed very distinct increases in concentrations of certain water quality parameters during high flow, contrary to the dilutional effect that had been observed over the years with the standard sampling programs.

Based on this information and because of the inadequacy of the available chemical record for Lake Erie tributaries, a sampling program was designed by the Lake Erie Study staff during the autumn of 1974 to measure flow and chemistry on selected tributaries. The initial stream selection was based primarily on the quality of flow records available, since the availability of a continuous flow recorder station at the sampling site would facilitate the measurement of stream flow changes with corresponding changes in water chemistry. The longer the flow record, the more accurate the flow "rating curve."

It should be noted that this sampling program was designated on the basis of anticipating increased concentrations of certain pollutants, such as total

Table 1 - Water Quality Stations in the Lake Erie Drainage Basin Used for Loading Calculations

| Station-Location (USGS Gage No./<br>Canada Water Survey No.) | Drainage Area<br>(square miles) | Map<br>Code | Sampling Dates (1) | Number of<br>Samples (1) | Total No.<br>of Samples (2) |
|--------------------------------------------------------------|---------------------------------|-------------|--------------------|--------------------------|-----------------------------|
| <b>Michigan</b>                                              |                                 |             |                    |                          |                             |
| Black River near Fargo<br>(04159500)                         | 480                             | 1           | 4 Mar 77           | 63                       | 63                          |
| Belle River at Memphis<br>(04160600)                         | 151                             | 5           | 4 Mar 77           | 63                       | 65                          |
| Clinton River at Mt. Clemens<br>(04165500)                   | 734                             | 7           | 4 Mar 77           | 63                       | 63                          |
| River Rouge at W. Jefferson Bridge<br>(04199000)             | 467                             | 9           | 3 Mar 77           | 63                       | 63                          |
| Huron River at S. Metropolitan Parkway<br>(04176500)         | 849                             | 11          | 3 Mar 77           | 63                       | 63                          |
| River Raisin near Monroe                                     | 1,042                           | 13          | 3 Mar 77           | 63                       | 82                          |
| <b>Ohio</b>                                                  |                                 |             |                    |                          |                             |
| Maumee River at Waterville<br>(04193500)                     | 6,330                           | 15          | 10 Jan 75          | 2,181                    | 2,261                       |
| Portage River at Woodville<br>(04195500)                     | 428                             | 19          | 19 Dec 74          | 1,976                    | 2,045                       |
| Sandusky River near Fremont<br>(04198000)                    | 1,251                           | 23          | 7 Dec 74           | 3,472                    | 3,504                       |
| Huron River at Milan<br>(04199000)                           | 371                             | 25          | 15 Dec 74          | 2,318                    | 2,416                       |
| Vermillion River near Vermilion<br>(04199500)                | 262                             | 27          | 23 Feb 75          | 113                      | 276                         |
| Black River at Elyria<br>(04200500)                          | 396                             | 29          | 22 Feb 75          | 63                       | 338                         |
| Rocky River near Berea<br>(04201500)                         | 267                             | 31          | 11 Mar 77          | 63                       | 169                         |
| Cuyahoga River at Independence<br>(04208000)                 | 707                             | 33          | 22 Feb 75          | 114                      | 671                         |
| Chagrin River at Willoughby<br>(04209000)                    | 246                             | 35          | 22 Feb 75          | 408                      | 298                         |
| Grand River at Painesville<br>(04212200)                     | 701                             | 37          | 20 Nov 76          | 173                      | 180                         |
| Ashtabula River near Ashtabula<br>(04212500)                 | 121                             | 39          | 12 Mar 77          | 23                       | 132                         |
| Conneaut Creek at Conneaut<br>(04213000)                     | 175                             | 41          | 12 Mar 77          | 23                       | 65                          |
| <b>New York</b>                                              |                                 |             |                    |                          |                             |
| Cattaraugus Creek at Gowanda<br>(04213500)                   | 432                             | 49          | 11 Jan 75          | 188                      | 268                         |
| <b>Ontario</b>                                               |                                 |             |                    |                          |                             |
| Grand River at Brantford<br>(02GB001)                        | 2,010                           | 53          | -                  | -                        | 72                          |
| Nanticoke River at Nanticoke<br>(02GC022)                    | 71                              | 55          | -                  | -                        | 99                          |
| Lynn River at Simcoe<br>(02GC008)                            | 55                              | 57          | -                  | -                        | 105                         |
| Dedrich Creek near Port Rowan<br>(02GC013)                   | 28                              | 59          | -                  | -                        | 71                          |
| Big Creek near Waslingham<br>(02GC007)                       | 228                             | 61          | -                  | -                        | 106                         |
| Big Otter Creek near Vienna<br>(02GC004)                     | 269                             | 65          | -                  | -                        | 81                          |
| Catfish Creek near Sparta<br>(02GC018)                       | 111                             | 67          | -                  | -                        | 132                         |
| Kettle Creek at St. Thomas<br>(02GC002)                      | 127                             | 69          | -                  | -                        | 98                          |
| Sturgeon Creek near Leamington<br>(02GH001)                  | 5                               | 72          | -                  | -                        | 78                          |
| Thames River at Thamesville<br>(02GE003)                     | 1,660                           | 75          | -                  | -                        | 89                          |
| Snydenas River near Dresden<br>(02GC007)                     | 478                             | 77          | -                  | -                        | 98                          |
| Ruscom River near Ruscom Station<br>(02GH002)                | 48                              | 79          | -                  | -                        | 55                          |

(1) Analyzed through the Lake Erie Wastewater Management Study.

(2) Includes additional samples from other agencies which were used in the loading calculations.

phosphorus, occurring in association with increased stream flows. For this reason, primary emphasis was placed on sampling high flow conditions, since the occurrence of increased concentrations during high flows would substantially increase mass transport. Historical chemical records, when available, were confined almost entirely to middle and lower flow regimes with virtually no data for the high flow range.

Ten sampling stations were selected for monitoring during 1975. They measure runoff from 10,423 square miles or 51 percent of the total Lake Erie drainage area in the United States. Heidelberg College's Water Quality Laboratory, the city of Cleveland's Water Quality Program, and the State University College of New York at Fredonia were contracted for sample collection and analysis during 1975. The Toledo Metropolitan Area Council of Governments contracted with Heidelberg College to continue stations on the Maumee, Portage, Sandusky, and Huron Rivers from June 1975 to June 1976.

The Michigan Department of Natural Resources, Heidelberg College, and the Great Lakes Laboratory were contracted by the Corps of Engineers for 1977. The U. S. Geological Survey (USGS) also collected some samples for analysis by Heidelberg College. EPA's Athens Laboratory and the Rockefeller Foundation provided support on the Maumee, Portage, Sandusky, and Huron Rivers for the second half of 1977 and 1978. The Great Lakes National Program Office contracted Heidelberg College and the USGS for sample analysis and collection in 1978 and 1979. Table 1 shows the tributaries that were sampled and used for the loading calculations. Many more sampling stations were established than those used here, mostly upstream of these stations (Corps of Engineers, 1982). For the Canadian side, water quality data were

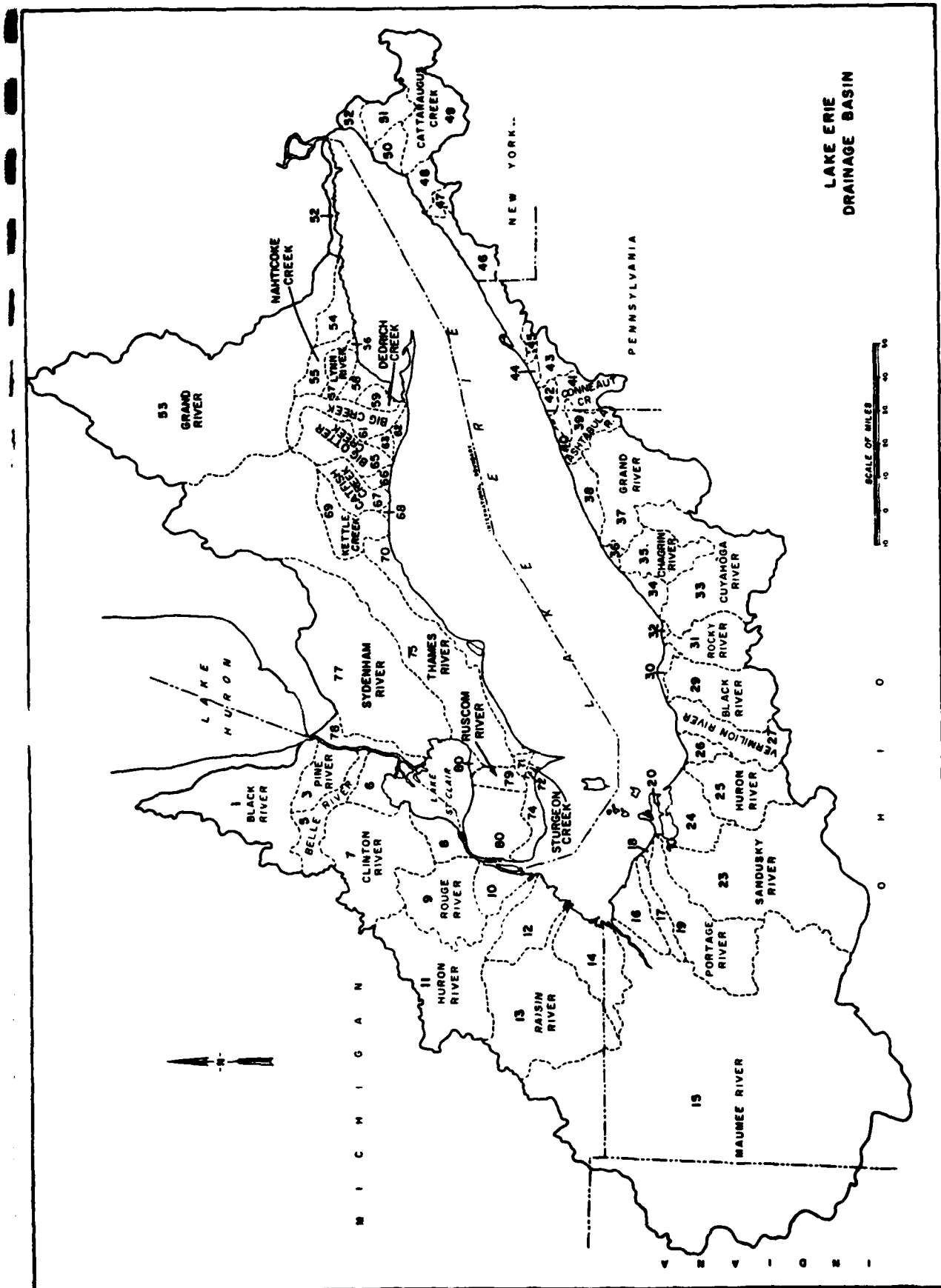


Figure 2 Lake Erie Drainage Basin Areas Used in the Nutrient Calculations.

obtained through the Ontario Ministry of the Environment and flow data through Canada Water Survey.

Samples collected were analyzed for the following parameters: total and orthophosphorus, nitrite-nitrate nitrogen, ammonia nitrogen, chlorides, dissolved silica, suspended solids, and conductivity. Twenty percent of the samples were analyzed for total kjeldahl nitrogen, inorganic nitrogen, and iron. Analytical methods are summarized in "Lake Erie Basin Tributary Mouth, Water Quality Data" (Corps of Engineers, 1977). The sampling procedures and results for the northwestern Ohio River have been described in detail by Baker (1982). Table 1 shows the sampling dates and number of samples taken on the U.S. streams under direct support from the Corps of Engineers. The map codes correspond to locations in Figure 2. Data for these stations were augmented by data collected and analyzed through USEPA support and data from the USGS. The total number of samples used in the loading calculations is also shown in Table 1. Stream flow data were provided by the Michigan, Ohio, and New York Divisions of the U. S. Geological Survey.

#### LOADING CALCULATIONS

##### Tributary Loads

For nutrient loading calculation purposes, the Lake Erie drainage basin was broken into 80 subbasins. These subbasins correspond to the major tributaries flowing into Lake Erie, the Detroit River, Lake St. Clair and the St. Clair River, and the adjacent areas between these tributaries with direct drainage to the lake. These 80 subbasins are shown in Figure 2.

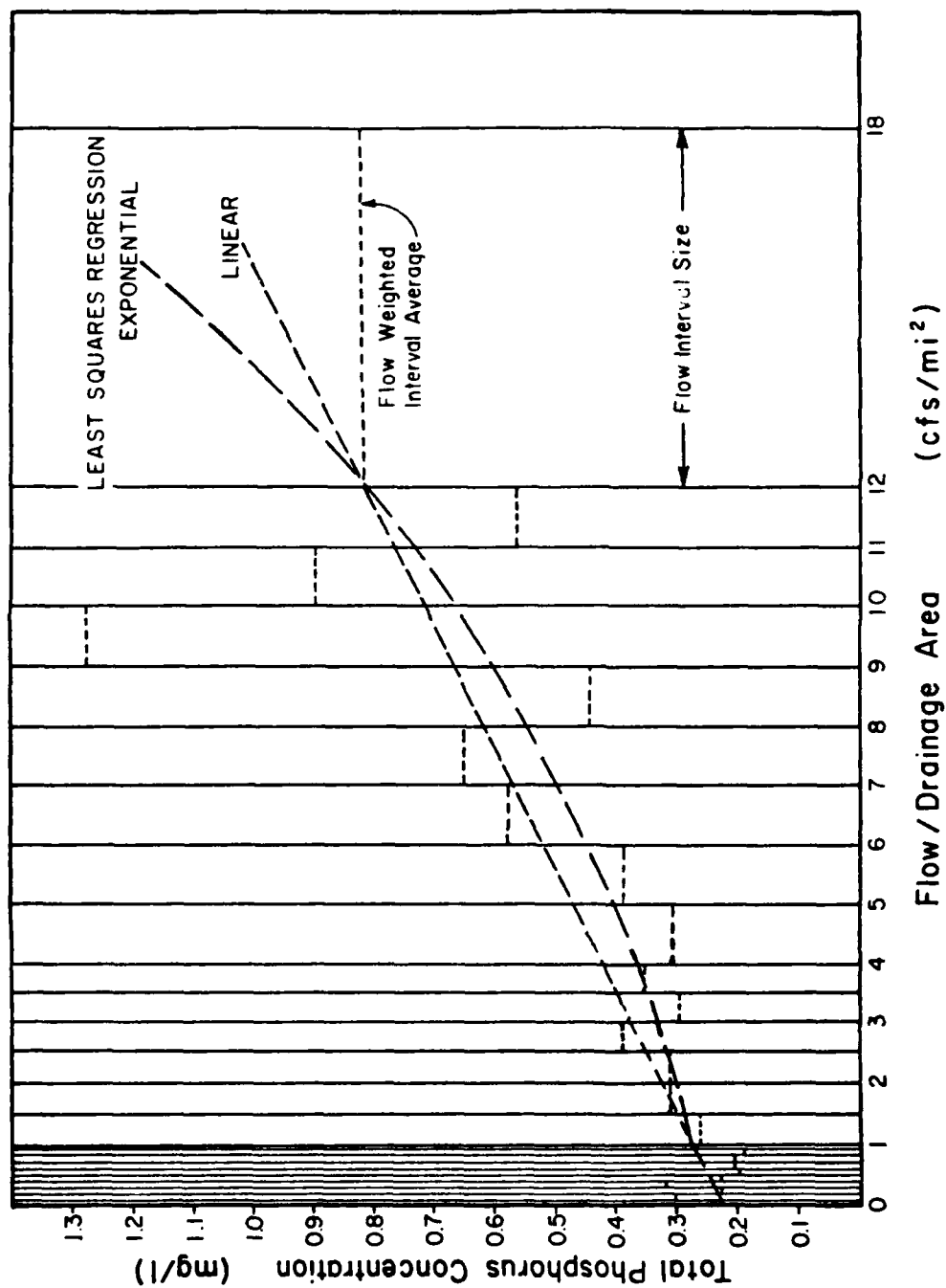


Figure 3 Example of the Flow Interval Method for the Huron River for 1977.

For the 19 sampled main stem streams on the U. S. side of Lake Erie and the 12 Canadian streams, nutrient transport loadings were calculated on a monthly basis for the period 1970-1980. The method used is called the flow interval method and has been described by Verhoff, et al. (1980). The flow interval method divides the expected discharge range into groups. Within each group, a flow weighted mean concentration is calculated. Daily flows are used with the concentration which was calculated for the interval in which the flow belongs to calculate the load for the day. Daily loadings were then summarized for monthly loads.

Figure 3 shows a plot of concentration versus flow. The concentration may increase, decrease, or not be affected by increasing flow. One method of deriving a concentration-flow relationship is to approximate this relation by a least squares curve as shown in Figure 3. As can be seen, this does not necessarily define the relationship very well, in some cases. However, a much better approximation can be achieved when the flow is broken up into convenient groups and flow weighted mean concentrations are calculated. The flow groups may be picked by any convenient method such as taking the maximum flow and dividing it into a certain number of intervals. For the calculations and results presented in this paper, a unit area flow was chosen. This was done for two reasons. First of all, the intervals would be uniform for all years and would not be related to any one year's high flow, and therefore, results for different years could be compared. This comparison allows known data to be substituted in years which had missing data. Secondly, the flow weighted mean concentrations can be compared for different streams. The unit area flow intervals chosen were not uniform in size. They were small on

the low end and large on the high side, and as many as 30 intervals were used.

If enough data points existed for a year and they were high flow oriented, the flow weighted mean concentrations were calculated for each flow interval. If a given year lacked enough data to be used in the calculation, these data were combined with data from an adjacent year and used in the calculation. In the case in which data were totally lacking for a year, flow weighted mean concentrations averaged over the years for which there were data were used. This was possible because the unit area flow groups were the same size for every year. If only one or no points existed for a given interval, the flow weighted mean concentration for that interval was approximated from two adjacent intervals in that year. At least two data points per interval were required. In the situations where high flow data were missing the concentration from an adjacent year for the appropriate unit area flow interval were used. In some cases, not enough samples were taken or no samples were taken during high flow for the entire period of record. In these cases a least squares regression of total phosphorus with discharge that was generalized for the Lake Erie watershed was used to define the daily phosphorus loadings (Verhoff, et al., 1980)

It should be noted that large seasonal differences in concentration versus flow relationships are present and well documented for the intensively studied basins. Since correspondingly detailed data were not available for most monitored streams, annual rather than seasonal concentrations versus flow relationships were used. This would tend to overestimate winter and early spring loading and underestimate late spring and summer loading, but

these should average out for the year. Using this method monthly loads were calculated for total phosphorus, soluble reactive phosphorus, nitrate-nitrate nitrogen, ammonia nitrogen, organic nitrogen, suspended solids, chlorides, and soluble silica.

#### Point Source Loading Calculations

Point source nutrient loadings for the 80 defined basins were calculated from the computer summary of Volume II, Appendix A of the Lake Erie Wastewater Management Study Preliminary Feasibility Report (1975) updated thru 1980. These data were originally compiled from local, regional, and Federal data bases for both the U. S. and Canadian sides of the lake. Most of the information was obtained from EPA, State, and local permit records. It was continuously updated through yearly reports, especially those from the Water Quality Board of IJC, when these became available. The information from each facility in the 80 identified watersheds was compiled with average yearly flows and accompanying concentration data.

Where past data were not known or unavailable, the most recent data were assumed to have remained constant over the preceeding years. An exception to this assumption is treatment plants known to have implemented phosphorus removal. Total phosphorus concentrations were assumed to be 6mg/l before phosphorus removal. When no chemistry data were available, as in the case of small package plants, a concentration was assumed for that plant over all years. Table 2 lists the seven parameters of interest with default concentrations which were assumed when no data were available. In most cases, wastewater treatment plants with flows greater than one million gallons per

day reported values for at least total phosphorus. The default concentrations were based on the discharge from other municipal plants in the Lake Erie Basin. For many of the very small facilities, there was a lack of both flow and chemistry data. Because of the insignificant contributions these small facilities had on Lake Erie as a whole, they were eliminated from the point source file. Nutrient loadings for the seven parameters are calculated for each facility and summed for each basin above and below the flow gaging station. Calculations for the point source loads were made using the average concentration for a year times the average flow for that year. The monthly point source loadings were obtained by proportioning the yearly loads by the number of days in the month.

Table 2 - Default Concentration Values for Effluent Concentrations from Wastewater Treatment Plants

|                          |   |                            |
|--------------------------|---|----------------------------|
| Total Phosphorus         | : | 6.0 mg/l as P              |
| Orthophosphate           | : | 3.0 mg/l as P              |
| Nitrate-Nitrite Nitrogen | : | 6.6 mg/l as N              |
| Ammonia Nitrogen         | : | 7.9 mg/l as N              |
| Organic Nitrogen         | : | 2.33 mg/l as N             |
| Chloride                 | : | 160 mg/l as Cl             |
| Silica                   | : | 5 mg/l as SiO <sub>2</sub> |

#### Lake Huron Outflow Loadings

Lake Huron input to the St. Clair River was handled as a separate entity because of the nature of the water quality data that were available. Data were obtained from the Ontario Ministry of the Environment in the form of

panel measurements across the river. For each panel, flow and concentrations were reported which represented average values for the given panel. From these, a total flow and a panel flow weighted mean for the parameters of interest were calculated for each date information existed. From the yearly records, flow weighted mean concentrations for the year were calculated. In some cases, the yearly record for certain parameters was spotty. If it was judged there were not enough values to have a meaningful flow weighted mean concentration, then data for that parameter were combined with all other year's data for that parameter and these were used for the calculations.

The average daily loading for the head of the St. Clair River was obtained by multiplying the flow weighted mean yearly concentration by the reported average daily flow per month. This daily loading was prorated by the number of days in the month to yield a monthly loading.

#### Point/Nonpoint Nutrient Load Summary

At this point, the St. Clair River loadings, the tributary loading calculations, and the point source calculations must be brought together to produce a point/nonpoint load summary for each of the 80 designated basins on a monthly basis. Nonpoint or diffuse loadings must be determined for the 80 regions both above and below the gage where they exist.

For the 31 tributary streams, the monthly upstream point sources above the gage are subtracted from the tributary loads. This defines the above gage nonpoint loading. It should be noted, in the case of indirect point sources, during low flow months much of the phosphorus input would be tied up in the stream sediment during these months. In some cases the tributary flow is so

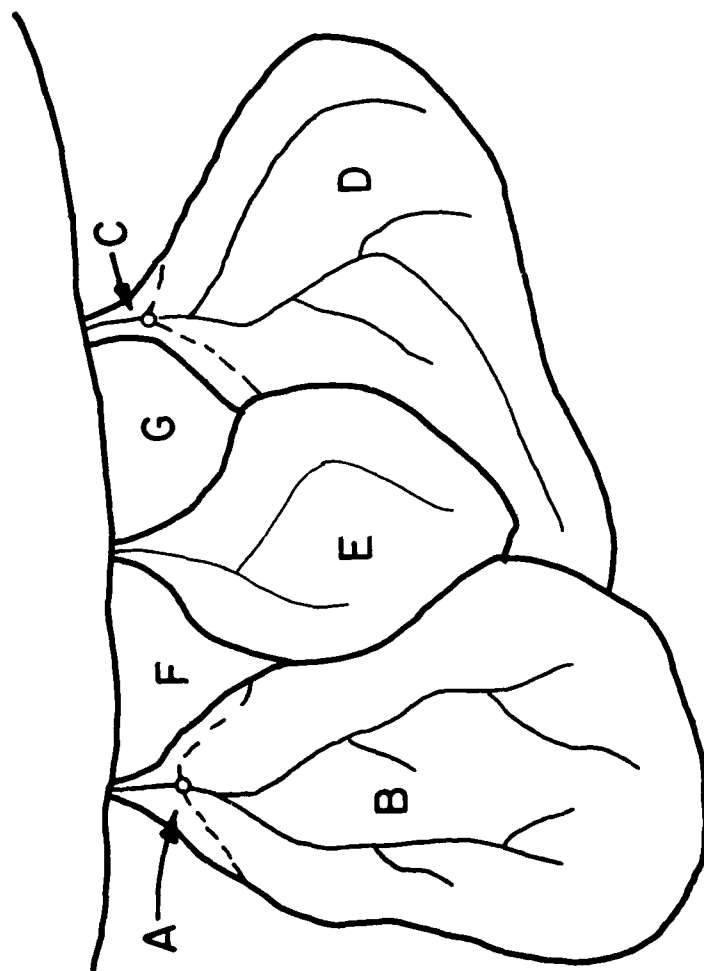


Figure 4 Nonpoint Load Extrapolation to Unmeasured Basins.

low that a negative nonpoint source yield is calculated. In this case the nonpoint yield is taken as zero and point source load is set equal to the tributary load. Dividing the nonpoint source load by the drainage area above the gage defines the above gage unit area nonpoint loading. The downstream nonpoint load below the gage is calculated by multiplying the unit area load by the area below the gage. Loadings for the ungaged areas between the gaged streams were calculated by taking the average unit nonpoint area loads from the two adjoining gaged streams, and multiplying that average by the ungaged area. This same extrapolation procedure was used for streams that did not have a water quality sampling program. The total loading for each of the 80 basins is obtained by summing point and nonpoint loadings above and below the gages.

Figure 4 is used to illustrate the extrapolation of nonpoint loads for measured basins to those basins not measured. Through the water quality sampling program, the tributary loads for areas B and D are defined. Nonpoint loads for these areas can be calculated by subtracting off the point source loads. Nonpoint loads for the area below the sampling points, A and C, can be defined in terms of the unit area loads for areas B and D, respectively. For example, the nonpoint loads for A equals the unit area load for B multiplied by the area of A. The nonpoint load for E can be defined as the area of E multiplied by the average of the unit area loads for B and D. Similarly, loads for F and G can be defined.

To produce monthly and yearly loading for the three basins of Lake Erie and the Detroit/St. Clair River system each of the 80 basin values are added together for the appropriate class. Basins 1-10 and 75-80 are in the

Table 3 - Yearly Summary for 1970 - Basin Loading in Metric Tons per Year

|                   | : Detroit/<br>: St. Clair<br>: Basin | : Western<br>: Basin | : Central<br>: Basin | : Eastern<br>: Basin | : Total  |
|-------------------|--------------------------------------|----------------------|----------------------|----------------------|----------|
| Total Phosphorus  | :                                    | :                    | :                    | :                    | :        |
| Lake Huron        | : 2,502                              | :                    | :                    | :                    | : 2,502  |
| U.S. Nonpoint     | : 307                                | : 2,389              | : 1,244              | : 296                | : 4,236  |
| Canadian Nonpoint | : 966                                | : 27                 | : 210                | : 608                | : 1,811  |
| Total Nonpoint    | : 1,273                              | : 2,416              | : 1,454              | : 904                | : 6,047  |
| U.S. Point        | : 6,622                              | : 1,511              | : 3,035              | : 538                | : 11,706 |
| Canadian Point    | : 91                                 | : 0                  | : 12                 | : 90                 | : 193    |
| Total Point       | : 6,713                              | : 1,511              | : 3,047              | : 628                | : 11,899 |
| U.S. Total        | : 6,929                              | : 3,900              | : 4,279              | : 834                | : 15,942 |
| Canadian Total    | : 1,057                              | : 27                 | : 222                | : 698                | : 2,004  |
| Basin Total       | : 10,488                             | : 3,927              | : 4,501              | : 1,532              | : 20,448 |
| Ortho Phosphorus  | :                                    | :                    | :                    | :                    | :        |
| Lake Huron        | : 1,129                              | :                    | :                    | :                    | : 1,129  |
| U.S. Nonpoint     | : 86                                 | : 309                | : 123                | : 1                  | : 519    |
| Canadian Nonpoint | : 244                                | : 38                 | : 108                | : 116                | : 506    |
| Total Nonpoint    | : 330                                | : 347                | : 231                | : 117                | : 1,025  |
| U.S. Point        | : 3,319                              | : 665                | : 1,341              | : 261                | : 5,586  |
| Canadian Point    | : 47                                 | : 0                  | : 10                 | : 47                 | : 104    |
| Total Point       | : 3,366                              | : 665                | : 1,351              | : 308                | : 5,690  |
| U.S. Total        | : 3,405                              | : 974                | : 1,464              | : 262                | : 6,105  |
| Canadian Total    | : 291                                | : 38                 | : 118                | : 163                | : 610    |
| Basin Total       | : 4,825                              | : 1,012              | : 1,582              | : 425                | : 7,844  |

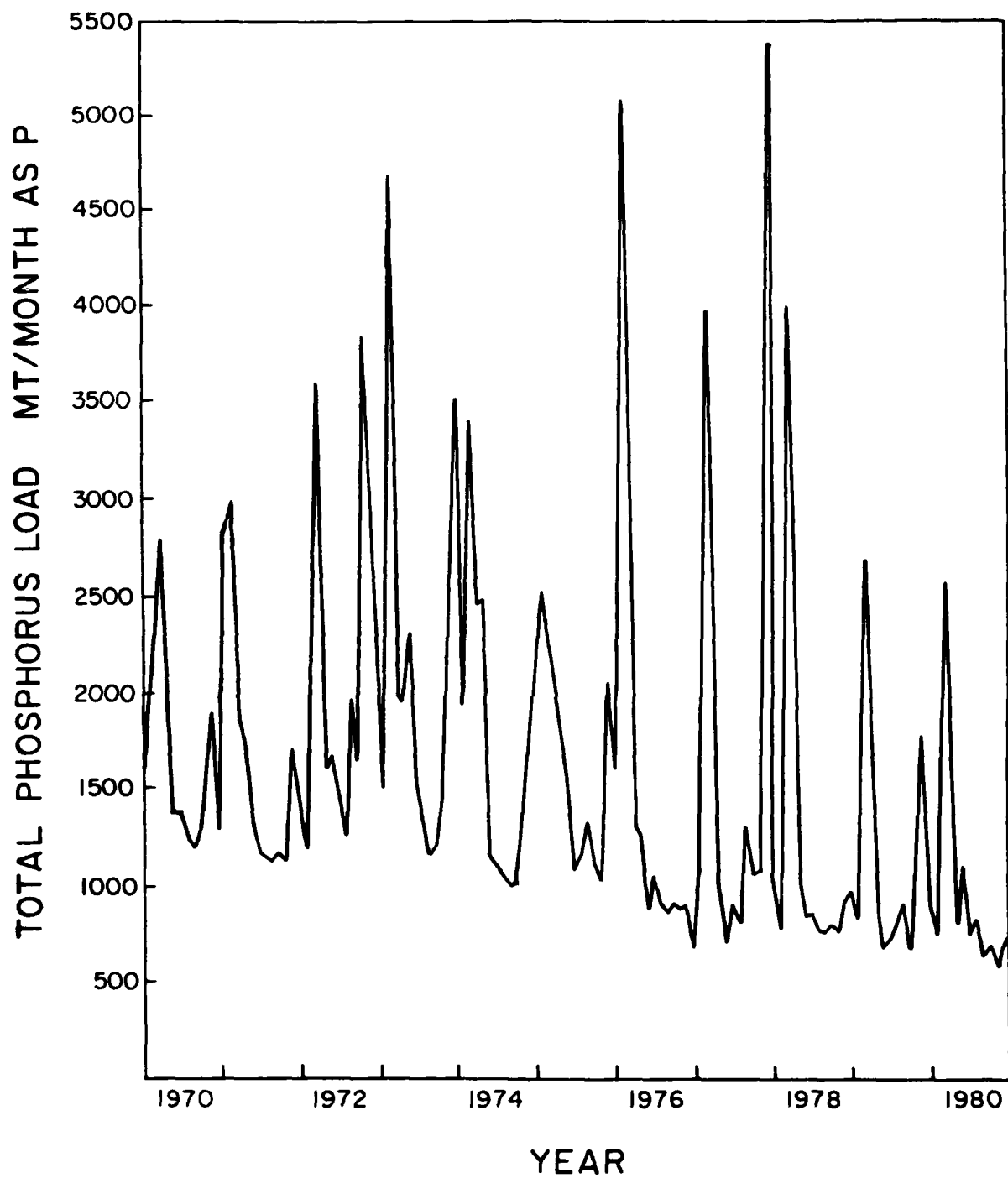


Figure 5 Monthly Total Phosphorus Loads to Lake Erie, 1970-1980.

drainage area for the Detroit/St. Clair Basin. The total input from this basin to the Western Basin of Lake Erie is the sum of these plus the Lake Huron input. The total added tributary loading to the Western Basin, excluding the Detroit River input, is the sum of basins 11-20 and 72-74. The total loading to the Western Basin is the sum of these and the Detroit River input. The tributary loading to the Central Basin is the sum of basins 21-45 and 62-71, while that for the Eastern Basin is the sum of 46-61. For any modeling purposes, it must be remembered that these are the external sources to the lake and the Central and Eastern Basins would also receive inputs from these upstream basins. For these calculations, atmospheric loadings and any phosphorus added due to shore erosion were not added.

Table 3 illustrates part of the yearly summary for 1970. A complete set of the yearly and monthly loading summary can be found in Appendix 1 and 2 of this report.

## RESULTS AND DISCUSSION

Monthly loadings to Lake Erie exhibit considerable variation for the 11-year period, 1970 to 1980. An example of this variation is the total phosphorus loads shown in Figure 5. In general, large increases in loading are seen to occur during the spring runoff. Loads decrease during the summer and usually remain low during the fall. Despite the large variation in total phosphorus loads that occurred, a decrease in the total phosphorus for 1970 to 1980 can be seen from Figure 5. The decrease in the minimum monthly loads reflects the reductions in point source loading.

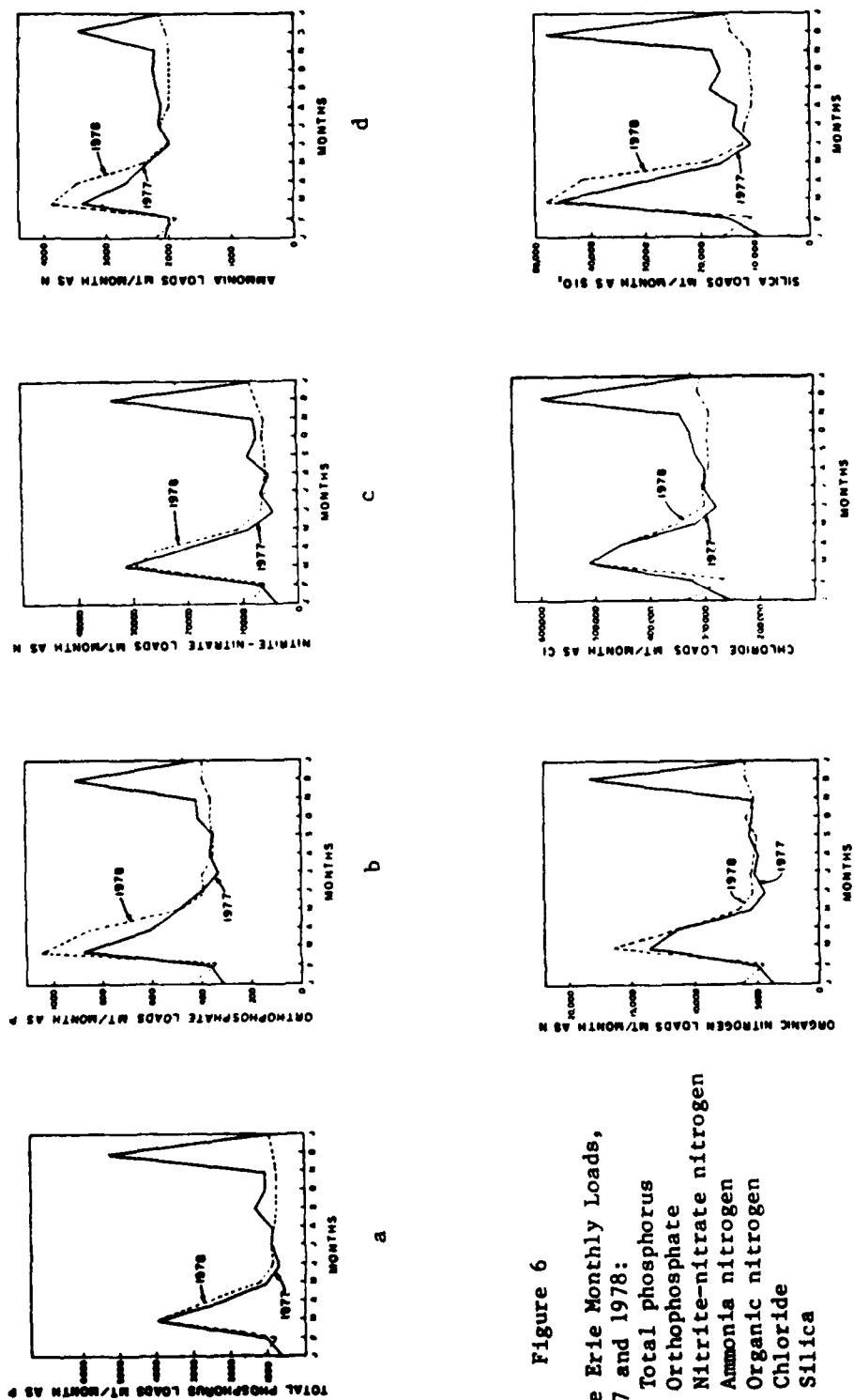


Figure 6  
 Lake Erie Monthly Loads,  
 1977 and 1978:  
 (a) Total phosphorus  
 (b) Orthophosphate  
 (c) Nitrite-nitrate nitrogen  
 (d) Ammonia nitrogen  
 (e) Organic nitrogen  
 (f) Chloride  
 (g) Silica

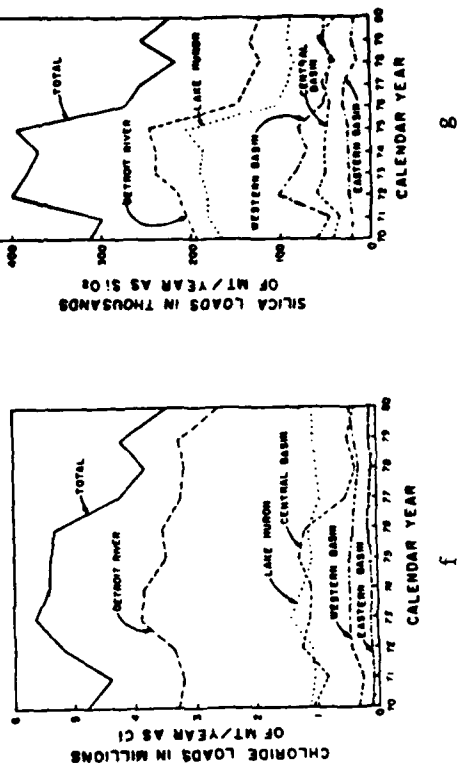
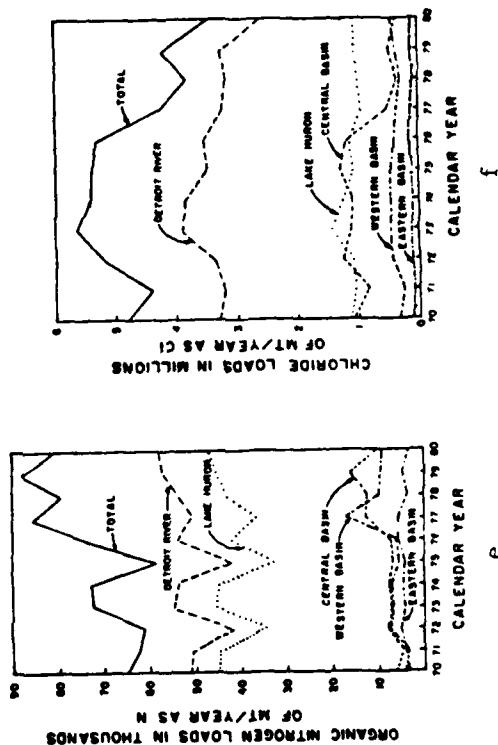
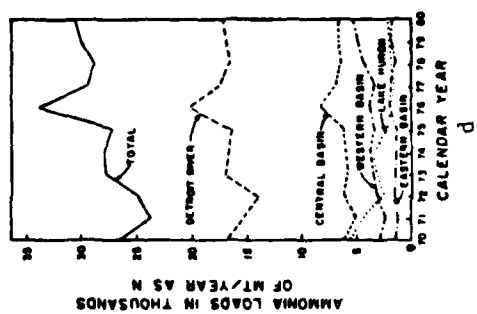
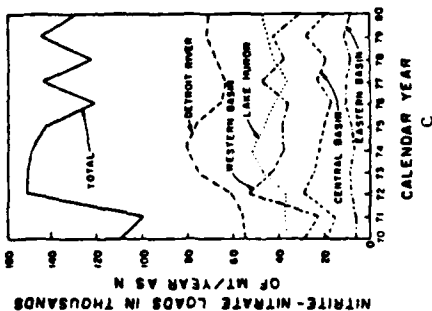
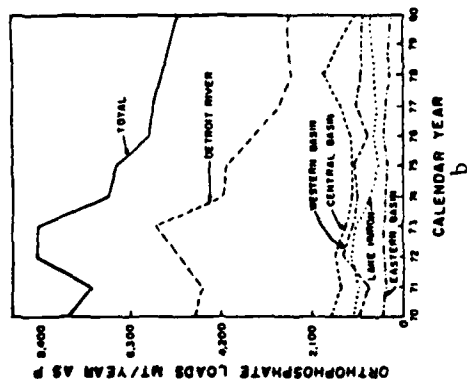
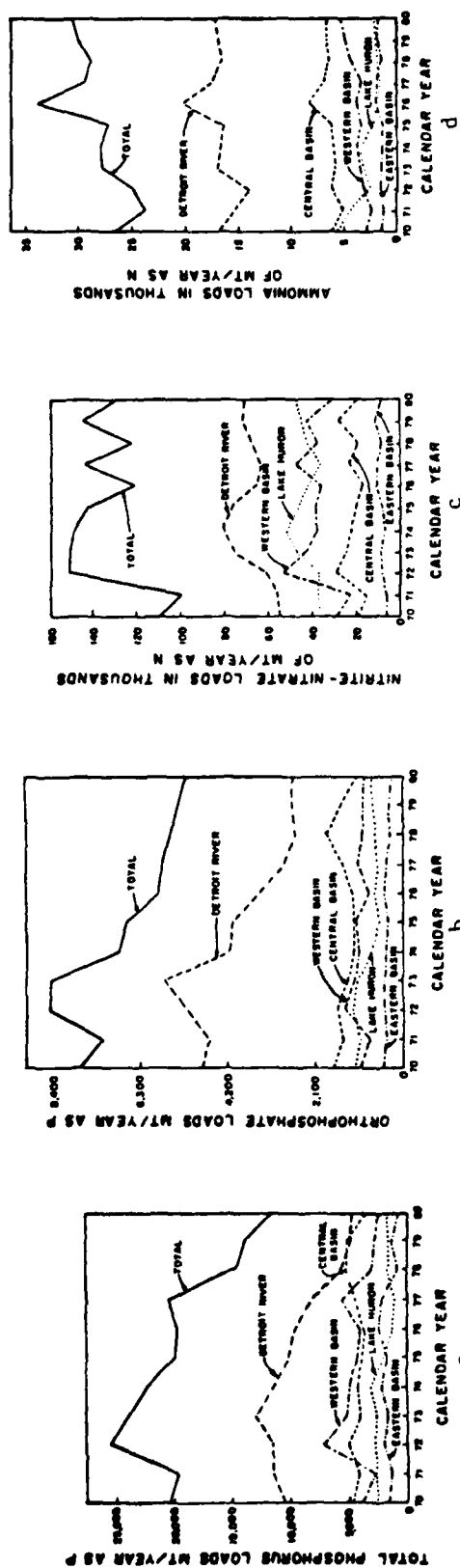


Figure 7

Lake Erie Nutrient Loads,  
1970-1980:  
(a) Total phosphorus  
(b) Soluble orthophosphate  
(c) Nitrite-nitrate nitrogen  
(d) Ammonia nitrogen  
(e) Organic nitrogen  
(f) Chloride  
(g) Silica  
(Does not include atmospheric  
input or shoreline erosion)

Figure 6 shows a comparison of the monthly loading between years 1977 and 1978 for the parameters total phosphorus, soluble orthophosphate, nitrite-nitrate nitrogen, ammonia nitrogen, organic nitrogen, chloride, and silica. Notice the general spring runoff peaks during March and April with smaller peaks through the year representing storms during those months. 1977 was illustrated because of the large storm that occurred in December of that year. It should be noted that parameters whose concentrations decrease with increasing flow (soluble orthophosphate and chloride) still experience the maximum loading during the runoff period. However, they show about a twofold increase while total phosphorus shows a fourfold increase during high flow periods.

Figure 7 shows the yearly loading trends for all the parameters for the years 1970-1980. The curve labeled Detroit River is the loading at the mouth of the Detroit River. It represents the sources added to the Detroit/St. Clair Basin along the way from Lake Huron to the mouth of the Detroit River, plus the Lake Huron load. The Western Basin load is the sum of all sources to the Western Basin excluding the Detroit River. The Central Basin load does not include the input from the Western Basin and the Eastern Basin load does not include the input from the Central Basin.

The total phosphorus loading to the lake as a whole starts to decline sharply in from 1973 to 1980. This is due mainly to the sharp decrease in the sources to the Detroit Basin as can be seen in Figure 7a. The same general trend is exhibited in Figure 7b for orthophosphorus. The nitrogen species (Figures 7c, d, and e), show more variability with somewhat erratic behavior. This is especially true with the nitrogen loading components into the Western

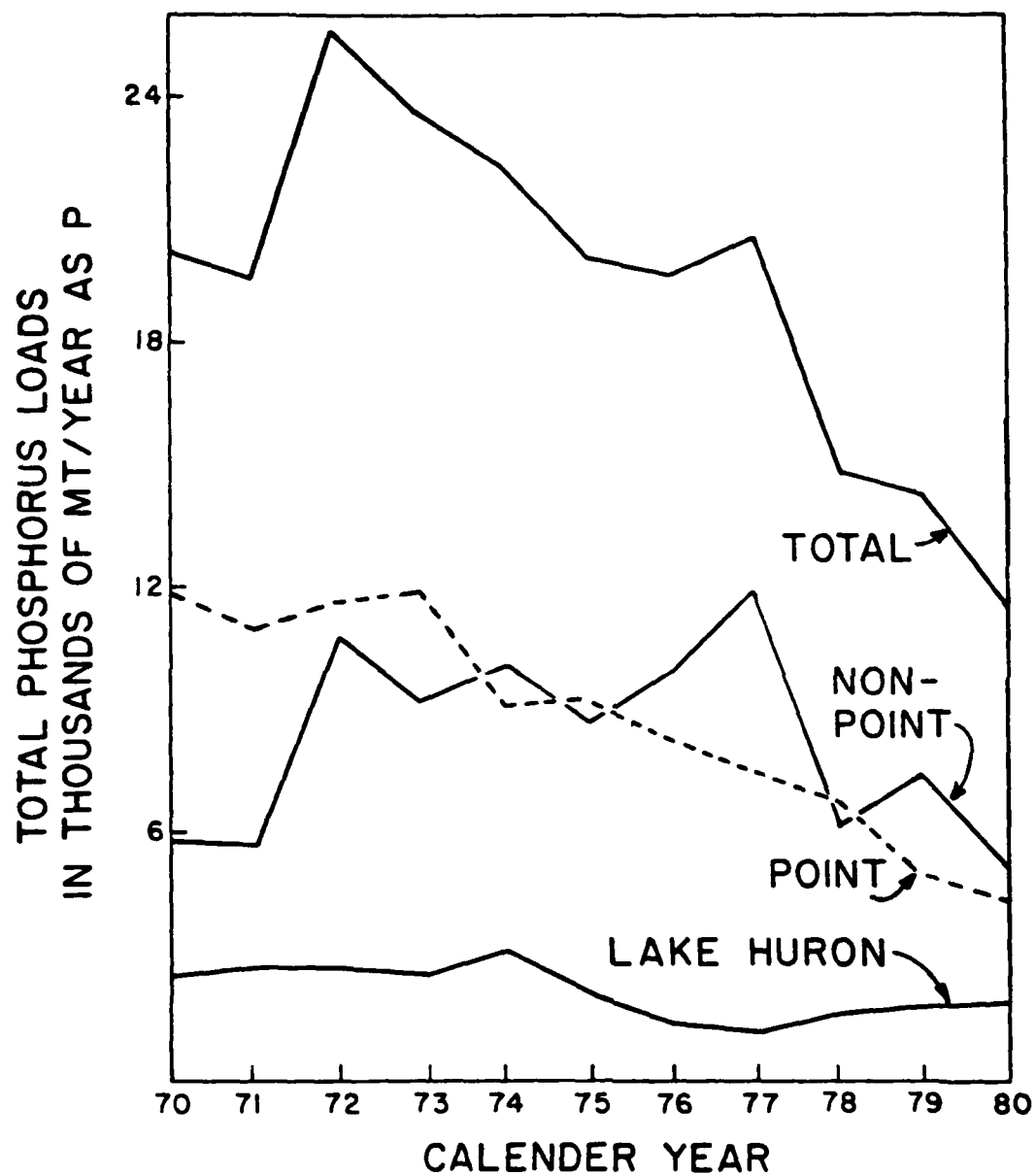


Figure 8 Total Phosphorus Loads to Lake Erie, 1970-1980; Point and Non-Point (Does not include shoreline erosion or atmospheric input.)

Basin of the lake including Lake Huron. It is interesting to note, however, that the values for nitrite-nitrate, ammonia, and organic nitrogen loadings remains relatively constant for the Eastern Basin of Lake Erie. Overall, the nitrogen loading into the lake has increased over the period. The chloride load to the lake has decreased from 1970 to 1980 due to the drop in the sources added to the Detroit River and a general decrease after 1976 for the Central Basin sources. Silica is sporadic like the nitrogen species, but does show a decrease in loading from 1975 on. This is basically due to large drop in the output from Lake Huron. It should be noted that the data for the St. Clair River is sparse of many years. Silica does show a seasonal variation and changes in the Lake Huron loading could be due to inadequate sampling.

Figure 8 shows the changes in the point and nonpoint total phosphorus loadings to the lake as a whole. Lake Huron output has remained relatively constant. Both point and nonpoint show a somewhat decreasing trend, point more so than nonpoint. Nonpoint is sensitive to rainfall and hydrology and can be expected to be more variable from year to year. In the last half of the 1970's there has been a general trend in reducing sewage treatment plant total phosphorus output.

#### THREE-BASIN LAKE ERIE TOTAL PHOSPHORUS MODEL

A three-basin total phosphorus model for Lake Erie, (Corps of Engineers 1975 and Rumer 1977) was used in conjunction with the total phosphorus loadings calculated from 1970 to 1980 to predict water quality changes over that period. The model is basically a six-compartment model with a water and sediment compartment for each basin. Inflow into each basin is equal to the

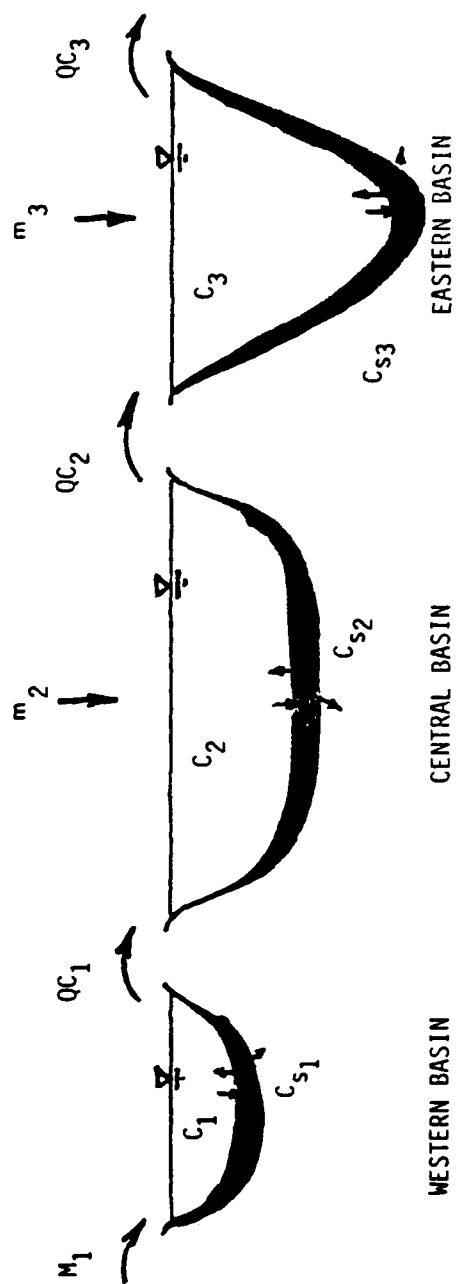


Figure 9 Three-Basin Total Phosphorus Budget Model for Lake Erie.

basin outflow. The water component is assumed to be continuously stirred and has a uniform total phosphorus concentration in each compartment. Figure 9 is a schematic showing the three basins and the processes taking place.

$M_1$  represents the tributary and Detroit River loading to the Western Basin, while  $M_2$  and  $M_3$  represent tributary loading to the other basins.  $C$  and  $C_s$  represent the total phosphorus concentrations in the water and sediment.

The material balance equation for phosphorus in the lake water can be written

$$\text{as: } \frac{dC}{dt} = \frac{M}{V} + \frac{K_2(C_3 - C)A}{V} - \frac{K_1CA}{V} - \frac{CQ}{V} \quad (1)$$

where  $V$  is the lake basin volume assumed constant in cubic meters and  $A$  is the sediment area in square meters. The quantity  $dC/dt$  represents the annual change in lake phosphorus concentration required to balance the phosphorus budget. If the basin is at equilibrium and the phosphorus loading is maintained at a constant, the lake phosphorus concentration remains unchanged and  $dC/dt$  equals zero.

The material balance equation for phosphorus in the sediment interstitial water is given by:

$$\frac{dC_s}{dt} = \frac{K_2(C_s - C)A}{V_s} + \frac{K_1CA}{V_s} - \frac{K_1K_3AC}{V_s} \quad (2)$$

Where  $V_s$  is the interstitial water volume. Again, for equilibrium conditions, the quantity  $dC_s/dt$  equals zero.

The above set of coupled equations can be solved for  $C$  and  $C_s$  as a function of time measured in years. The accuracy of the solution in quantitative

terms depends on the adequacy of the model formulation, correctness of the values chosen for the three rate constants ( $K_1$ ,  $K_2$ , and  $K_3$ ), adequate information on the phosphorus loading rate ( $M$ ), and data on the lake characteristics ( $V$ ,  $V_s$ ,  $A$ , and  $Q$ ). Initial values of  $C$  and  $C_s$  must also be known.

There is an equation for each concentration of the water and sediment compartments in each of the three basins. Five processes take place for each basin; a material transport to the basin, a material transport from the basin, a transport of phosphorus to the sediment, a transport from the sediment in the water and a permanent loss from the sediment. The last three processes are controlled by the reaction parameters  $K_1$ ,  $K_2$ , and  $K_3$ , respectively, which must be determined from existing data.

If equilibrium conditions between the total phosphorus concentration and the loading are assumed ( $dC/dt = 0$ ), the following two equations are obtained which relate the three rate constants.

$$K_1 K_3 = \frac{M}{AC_e} - \frac{Q}{A} \quad (3)$$

$$K_2 = \frac{K_1(1-K_3)C_e}{C_{se} - C_e} \quad (4)$$

In this case,  $C_e$  and  $C_{se}$  are the steady-state or equilibrium values for lake and interstitial water concentrations, respectively. With knowledge of any one of the rate constants, the other two are specified by the above (3) and (4).

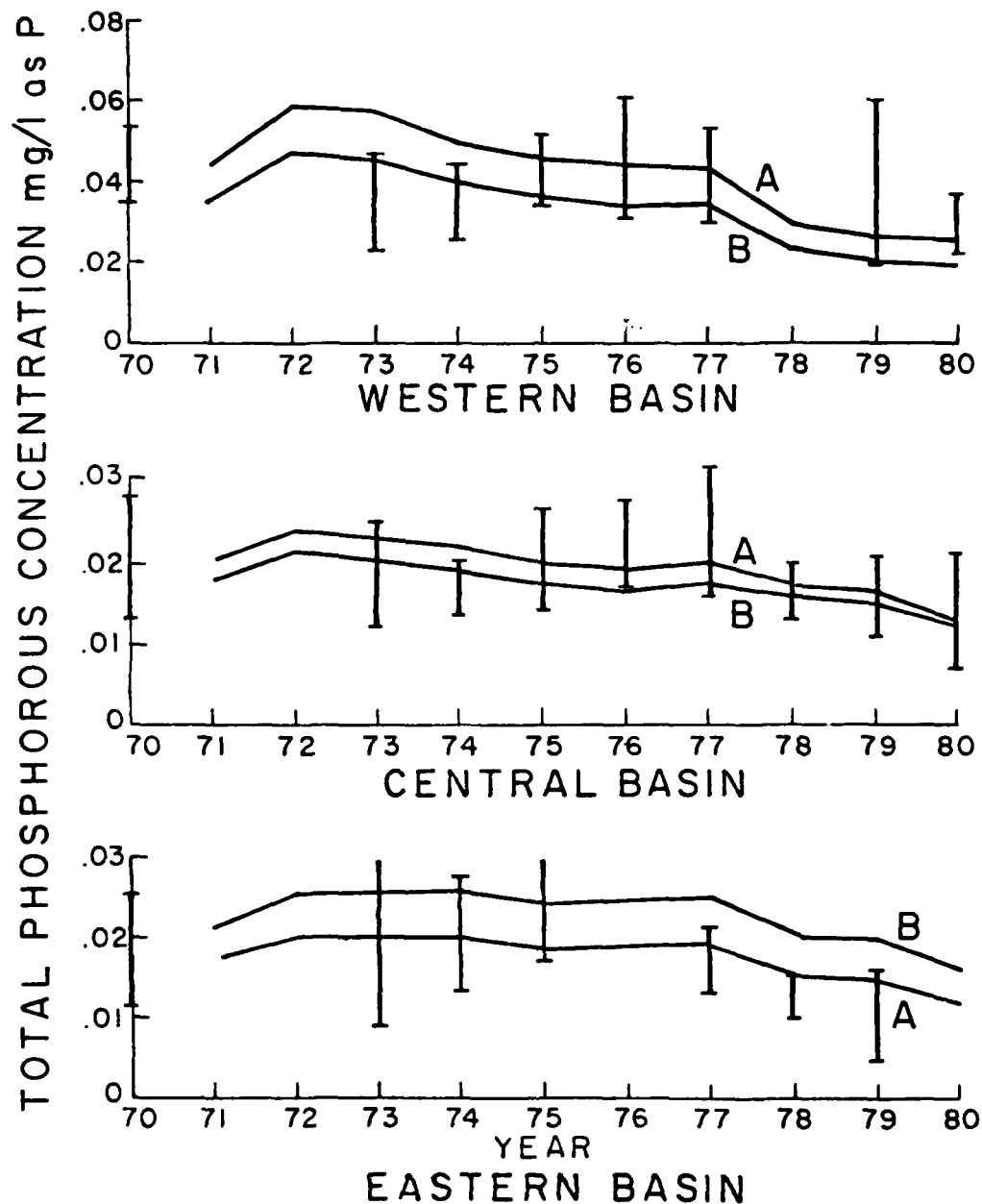


Figure 10 Lake Erie Total Phosphorus Concentrations  
 A - Model Prediction for 1970 Loadings and Concentrations  
 B - Model Prediction for Average 1970-1975 Loadings and Concentrations  
 Data Points and Error Bars Showing  $\pm 1$  Standard Deviation from Actual Mean Concentrations Are Presented.

For illustrative purposes and to check calculated basin concentrations with field data, two sets of reaction parameters were calculated and used in this model. In both cases, the values for  $K_2$  (transfer of phosphorus from sediment) were the same and these values were approximated from Project Hydro (Burns and Ross 1972) data as 1.0, 1.4, 1.0 m/yr for each of the basins. Using 1970 loadings and concentrations as equilibrium conditions, Case A parameters  $K_1$  and  $K_3$  were calculated as 59.1, 44.66, 30.63 m/yr and 0.872, 0.594, 0.620, respectively. Similarly for Case B where 1970-1975 average loadings and concentrations were used as equilibrium conditions, the parameters are 79.87, 45.23, 13.17 m/yr and 0.905, 0.565, 0.385. These two cases were then used with the 1970-1980 loadings to predict in-lake total phosphorus concentrations for each of the basins.

Figure 10 shows the model results plotted against measured in-lake total phosphorus concentrations. The plotted values with the bars are the ranges of the measured in-lake concentration which were reported by the Water Quality Board to IJC (1981) as measured by various agencies. As shown, the two cases predicted match the measured values fairly well. Only for the eastern basin after 1976 for Case B are the predicted concentrations outside the range for the measured data.

The lake loadings presented in the report (total phosphorus loads and the others) were also used to calibrate, verify, and predict lake concentrations for all the parameters using a much more sophisticated model. This model was developed for the USEPA at Manhattan College. Calibration and verification of the model was very good and the predicted concentrations agreed reasonably well with measured data (DiTore and Connolly).

### CONCLUSIONS

Total phosphorus loads to Lake Erie have decreased during the period 1970-1980 as a result of phosphorus removal at wastewater treatment plants. The effect of these reductions can be seen in the lake concentrations and were predicted by a three-basin phosphorus budget model developed in the early 1970's. Soluble orthophosphate loads, chloride loads and silica loads have decreased over the period. Nitrogen species were highly variable and increased over the period.

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**Appendix 1**

**Yearly Nutrient Loads to Lake Erie**

**1970-1980**

This appendix presents a yearly summary for calculated nutrient loads to Lake Erie for the years 1970-1980. The presented loads are tributary loads only and do not account for shoreline erosion, atmospheric inputs, and sediment inputs. The loads are for total phosphorus as P, nitrite-nitrate nitrogen as N, ammonia nitrogen as N, organic nitrogen as N, chloride as Cl, and silica as SiO<sub>2</sub> and are broken down into components for the Detroit/St. Clair River Basin, the Western Basin, the Central Basin, and the Eastern Basin of Lake Erie. These are further divided into U.S. and Canadian point and non point, total point and non point, and total U.S. and Canadian loads.

\*\*\*\*\*  
 \* YEARLY SUMMARY FOR \*  
 \* 1970 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
 \* \*\*\*\*\*

|                                 | NET/ST. CLK BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL  |
|---------------------------------|-------------------|---------------|---------------|---------------|--------|
| <b>TOTAL PHOSPHORUS</b>         |                   |               |               |               |        |
| LAKE MURON                      | 2502              | 2389          | 1244          | 296           | 2502   |
| US MURON POINT                  | 307               | 27            | 210           | 608           | 4236   |
| CANADIAN MURON POINT            | 966               | 2416          | 1454          | 904           | 1811   |
| TOTAL MURON POINT               | 1273              | 1511          | 3035          | 538           | 6047   |
| US POINT                        | 6622              | 0             | 12            | 90            | 11706  |
| CANADIAN POINT                  | 91                | 1511          | 3047          | 628           | 193    |
| TOTAL POINT                     | 6713              | 3900          | 4279          | 634           | 11899  |
| US TOTAL                        | 6929              | 27            | 222           | 698           | 15942  |
| CANADIAN TOTAL                  | 1057              | 3927          | 4501          | 1532          | 2004   |
| BASIN TOTAL                     | 10488             |               |               |               | 20448  |
| <b>ORTHO PHOSPHORUS</b>         |                   |               |               |               |        |
| LAKE MURON                      | 1129              | 309           | 123           | 1             | 1129   |
| US MURON POINT                  | 86                | 38            | 108           | 116           | 519    |
| CANADIAN MURON POINT            | 244               | 347           | 231           | 117           | 506    |
| TOTAL MURON POINT               | 330               | 685           | 1341          | 261           | 1025   |
| US POINT                        | 3319              | 0             | 10            | 47            | 5586   |
| CANADIAN POINT                  | 47                | 665           | 1351          | 368           | 104    |
| TOTAL POINT                     | 3566              | 974           | 1464          | 262           | 5690   |
| US TOTAL                        | 3405              | 36            | 116           | 163           | 6105   |
| CANADIAN TOTAL                  | 291               | 1012          | 1582          | 425           | 610    |
| BASIN TOTAL                     | 4625              |               |               |               | 7844   |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |               |               |               |        |
| LAKE MURON                      | 37139             | 27103         | 13202         | 1886          | 37139  |
| US MURON POINT                  | 1486              | 1113          | 2473          | 398           | 4417   |
| CANADIAN MURON POINT            | 10564             | 28216         | 15675         | 5884          | 18153  |
| TOTAL MURON POINT               | 12555             | 2177          | 3568          | 611           | 62330  |
| US POINT                        | 8306              | 0             | 36            | 408           | 14662  |
| CANADIAN POINT                  | 437               | 2177          | 3604          | 1059          | 921    |
| TOTAL POINT                     | 8743              | 29280         | 16770         | 2497          | 15583  |
| US TOTAL                        | 10292             | 1113          | 2509          | 5839          | 58039  |
| CANADIAN TOTAL                  | 11006             | 30393         | 19279         | 4446          | 19074  |
| BASIN TOTAL                     | 54437             |               |               | 6943          | 115052 |
| <b>AMMONIA NITROGEN</b>         |                   |               |               |               |        |
| LAKE MURON                      | 5516              | 655           | 1150          | 291           | 5516   |
| US MURON POINT                  | 249               | 48            | 163           | 110           | 2345   |
| CANADIAN MURON POINT            | 466               | 703           | 1313          | 401           | 787    |
| TOTAL MURON POINT               | 715               | 2227          | 4574          | 729           | 3132   |
| US POINT                        | 9413              | 0             | 43            | 304           | 16948  |
| CANADIAN POINT                  | 520               | 2227          | 4622          | 1033          | 867    |
| TOTAL POINT                     | 9933              | 2682          | 5729          | 1020          | 17815  |
| US TOTAL                        | 9662              | 48            | 206           | 414           | 19293  |
| CANADIAN TOTAL                  | 986               | 2930          | 5935          | 1434          | 1654   |
| BASIN TOTAL                     | 16164             |               |               |               | 26463  |

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 \*  
 \* YEARLY SUMMARY FOR \*  
 \* 1970 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL   |
|-------------------------|---------------|---------------|---------------|---------|
| UNIT/ST./CLW BASIN      |               |               |               |         |
| <b>ORGANIC NITROGEN</b> |               |               |               |         |
| LAKE MURON              | 46071         | 3564          | 3483          | 46071   |
| US RUN POINT            | 1334          | 123           | 746           | 932     |
| CANADIAN RUN POINT      | 2205          | 3687          | 3737          | 2146    |
| TOTAL RUN POINT         | 3579          | 804           | 203           | 5260    |
| US POINT                | 2929          | 0             | 1875          | 15192   |
| CANADIAN POINT          | 155           | 804           | 162           | 5811    |
| TOTAL POINT             | 3084          | 4368          | 365           | 329     |
| US TOTAL                | 4263          | 123           | 1794          | 6140    |
| CANADIAN TOTAL          | 2400          | 4491          | 2308          | 15743   |
| BASIN TOTAL             | 52734         | 6076          | 4102          | 5589    |
|                         |               |               |               | 67403   |
| <b>CHLORINE</b>         |               |               |               |         |
| LAKE MURON              | 1153211       | 272298        |               | 1153211 |
| US RUN POINT            | 128113        | 8180          | 20740         | 1346083 |
| CANADIAN RUN POINT      | 65968         | 280478        | 66743         | 163435  |
| TOTAL RUN POINT         | 194081        | 58919         | 87463         | 1509516 |
| US POINT                | 778650        | 0             | 14743         | 971552  |
| CANADIAN POINT          | 1197462       | 58919         | 11034         | 1209428 |
| TOTAL POINT             | 1976112       | 331217        | 25777         | 2180980 |
| US TOTAL                | 906763        | 8180          | 55483         | 2317635 |
| CANADIAN TOTAL          | 1263430       | 339397        | 77777         | 1372863 |
| BASIN TOTAL             | 3323404       | 1067648       | 113260        | 4843709 |
| <b>SILICA</b>           |               |               |               |         |
| LAKE MURON              | 168290        | 56307         | 10471         | 168290  |
| US RUN POINT            | 8757          | 705           | 9555          | 108638  |
| CANADIAN RUN POINT      | 11693         | 57012         | 20026         | 25575   |
| TOTAL RUN POINT         | 20450         | 1845          | 460           | 134213  |
| US POINT                | 6390          | 0             | 341           | 12195   |
| CANADIAN POINT          | 330           | 1845          | 801           | 695     |
| TOTAL POINT             | 6630          | 58152         | 10931         | 12090   |
| US TOTAL                | 15057         | 705           | 9896          | 120833  |
| CANADIAN TOTAL          | 12023         | 58657         | 20827         | 26270   |
| BASIN TOTAL             | 195370        | 40339         |               | 315393  |

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 \*  
 \* YEARLY SUMMARY FOR \*  
 \* 1971 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | NET/ST.CLV BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|-------------------------|------------------|---------------|---------------|---------------|-------|
| <b>TOTAL PHOSPHORUS</b> |                  |               |               |               |       |
| LAKE MURON              | 2784             | 1641          | 1111          | 259           | 2784  |
| US MON POINT            | 374              | 28            | 203           | 676           | 3385  |
| CANADIAN MON POINT      | 2251             | 1669          | 1314          | 935           | 3158  |
| TOTAL MON POINT         | 2625             | 1202          | 2684          | 428           | 6543  |
| US POINT                | 6564             | 0             | 12            | 88            | 10878 |
| CANADIAN POINT          | 91               | 1202          | 2696          | 516           | 191   |
| TOTAL POINT             | 6655             | 2843          | 3795          | 687           | 11069 |
| US TOTAL                | 6938             | 28            | 215           | 764           | 14263 |
| CANADIAN TOTAL          | 2342             | 2871          | 4010          | 1451          | 3349  |
| BASEL TOTAL             | 12064            |               |               |               | 20396 |

|                         |      |     |      |     |      |
|-------------------------|------|-----|------|-----|------|
| <b>ORTHO PHOSPHORUS</b> |      |     |      |     |      |
| LAKE MURON              | 993  | 216 | 110  | 1   | 993  |
| US MON POINT            | 101  | 37  | 98   | 122 | 428  |
| CANADIAN MON POINT      | 211  | 253 | 208  | 123 | 468  |
| TOTAL MON POINT         | 312  | 584 | 1189 | 210 | 896  |
| US POINT                | 3287 | 0   | 6    | 47  | 5270 |
| CANADIAN POINT          | 47   | 584 | 1195 | 257 | 100  |
| TOTAL POINT             | 3334 | 800 | 1299 | 211 | 5370 |
| US TOTAL                | 3388 | 37  | 104  | 169 | 568  |
| CANADIAN TOTAL          | 258  | 837 | 1403 | 300 | 568  |
| BASEL TOTAL             | 4639 |     |      |     | 7259 |

|                                 |       |       |       |      |        |
|---------------------------------|-------|-------|-------|------|--------|
| <b>NITRATE-NITRICE NITROGEN</b> |       |       |       |      |        |
| LAKE MURON                      | 37573 | 20850 | 9552  | 1418 | 37573  |
| US MON POINT                    | 2725  | 1110  | 2280  | 3789 | 34545  |
| CANADIAN MON POINT              | 8951  | 21960 | 11832 | 5207 | 16130  |
| TOTAL MON POINT                 | 11676 | 1963  | 3659  | 575  | 50875  |
| US POINT                        | 8208  | 0     | 36    | 450  | 14805  |
| CANADIAN POINT                  | 437   | 1963  | 3695  | 1025 | 923    |
| TOTAL POINT                     | 8645  | 22813 | 13211 | 1993 | 15328  |
| US TOTAL                        | 10933 | 1110  | 2316  | 4239 | 48950  |
| CANADIAN TOTAL                  | 4388  | 23923 | 15527 | 6232 | 17053  |
| BASEL TOTAL                     | 57894 |       |       |      | 103576 |

|                         |       |      |      |      |       |
|-------------------------|-------|------|------|------|-------|
| <b>AMMONIA NITROGEN</b> |       |      |      |      |       |
| LAKE MURON              | 4218  | 452  | 1063 | 209  | 4218  |
| US MON POINT            | 299   | 49   | 168  | 125  | 2023  |
| CANADIAN MON POINT      | 417   | 501  | 1231 | 334  | 759   |
| TOTAL MON POINT         | 716   | 1887 | 3687 | 675  | 2782  |
| US POINT                | 9354  | 0    | 42   | 280  | 15603 |
| CANADIAN POINT          | 513   | 1887 | 3729 | 555  | 835   |
| TOTAL POINT             | 9667  | 2339 | 4750 | 884  | 16438 |
| US TOTAL                | 9653  | 49   | 210  | 405  | 17826 |
| CANADIAN TOTAL          | 930   | 2388 | 4960 | 1289 | 1594  |
| BASEL TOTAL             | 14801 |      |      |      | 23430 |

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 \*  
 \* YEARLY SUMMARY FOR \*  
 \* 1971 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL   |
|-------------------------|-------------------|---------------|---------------|---------------|---------|
| <b>ORGANIC NITROGEN</b> |                   |               |               |               |         |
| LAKE MURON              | 45603             | 2812          | 2755          | 1065          | 45603   |
| US NON POINT            | 1620              | 120           | 663           | 2149          | 8252    |
| CANADIAN NON POINT      | 2075              | 2932          | 3418          | 3214          | 5007    |
| TOTAL NON POINT         | 3695              | 725           | 1399          | 5363          | 13259   |
| US POINT                | 2897              | 0             | 12            | 162           | 5212    |
| CANADIAN POINT          | 155               | 725           | 1411          | 353           | 329     |
| TOTAL POINT             | 3052              | 3537          | 4154          | 1256          | 5581    |
| US TOTAL                | 4517              | 120           | 675           | 2311          | 13464   |
| CANADIAN TOTAL          | 2230              | 3657          | 4829          | 3567          | 5336    |
| BASIN TOTAL             | 52350             |               |               |               | 64003   |
| <b>CHLORIDE</b>         |                   |               |               |               |         |
| LAKE MURON              | 1047834           | 211066        | 680650        | 15830         | 1047834 |
| US NON POINT            | 121466            | 8151          | 20306         | 58237         | 1029012 |
| CANADIAN NON POINT      | 63360             | 219217        | 700956        | 74067         | 150054  |
| TOTAL NON POINT         | 184826            | 55830         | 114318        | 13906         | 1179066 |
| US POINT                | 773652            | 0             | 923           | 11033         | 957706  |
| CANADIAN POINT          | 1197462           | 55830         | 115241        | 24939         | 1209418 |
| TOTAL POINT             | 1971114           | 266894        | 790968        | 29734         | 2167124 |
| US TOTAL                | 495118            | 8151          | 21229         | 69270         | 1986718 |
| CANADIAN TOTAL          | 1260822           | 275047        | 816197        | 99006         | 1359472 |
| BASIN TOTAL             | 3203774           |               |               |               | 4394024 |
| <b>SILICA</b>           |                   |               |               |               |         |
| LAKE MURON              | 178411            | 42579         | 26319         | 8152          | 178411  |
| US NON POINT            | 9727              | 700           | 3301          | 9425          | 86777   |
| CANADIAN NON POINT      | 9770              | 43279         | 29620         | 17577         | 23196   |
| TOTAL NON POINT         | 19497             | 1775          | 3451          | 436           | 109973  |
| US POINT                | 6272              | 0             | 24            | 341           | 11934   |
| CANADIAN POINT          | 330               | 1775          | 3475          | 777           | 695     |
| TOTAL POINT             | 6602              | 44354         | 29770         | 8588          | 12629   |
| US TOTAL                | 15999             | 700           | 3325          | 9766          | 98711   |
| CANADIAN TOTAL          | 10100             | 45054         | 33095         | 18354         | 23891   |
| BASIN TOTAL             | 260510            |               |               |               | 301013  |

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 \*  
 \* YEARLY SUMMARY FOR \*  
 \* 1972 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|-------------------------|-------------------|---------------|---------------|---------------|-------|
| <b>TOTAL PHOSPHORUS</b> |                   |               |               |               |       |
| LAKE HURON              | 2761              | 5551          | 1965          | 458           | 2761  |
| US NON POINT            | 354               | 29            | 312           | 1105          | 8328  |
| CANADIAN NON POINT      | 1412              | 5580          | 2277          | 1563          | 2858  |
| TOTAL NON POINT         | 1766              | 1538          | 2694          | 339           | 11186 |
| US POINT                | 7015              | 0             | 12            | 90            | 11586 |
| CANADIAN POINT          | 91                | 1538          | 2706          | 429           | 193   |
| TOTAL POINT             | 7106              | 7089          | 4659          | 797           | 11779 |
| US TOTAL                | 7369              | 7118          | 324           | 1195          | 19914 |
| CANADIAN TOTAL          | 1503              |               | 4983          |               | 3051  |
| BASIN TOTAL             | 11633             |               |               | 1992          | 25726 |

**ORTHO PHOSPHORUS**

|                    |      |      |      |     |      |
|--------------------|------|------|------|-----|------|
| LAKE HURON         | 1194 | 626  | 222  | 24  | 1194 |
| US NON POINT       | 109  | 39   | 142  | 169 | 981  |
| CANADIAN NON POINT | 345  | 665  | 364  | 193 | 695  |
| TOTAL NON POINT    | 454  | 750  | 1195 | 166 | 1676 |
| US POINT           | 3515 | 0    | 11   | 47  | 3626 |
| CANADIAN POINT     | 48   | 750  | 1206 | 213 | 106  |
| TOTAL POINT        | 3563 | 1376 | 1417 | 190 | 5732 |
| US TOTAL           | 3624 | 39   | 153  | 216 | 6607 |
| CANADIAN TOTAL     | 393  | 1415 | 1570 | 406 | 801  |
| BASIN TOTAL        | 5211 |      |      |     | 8602 |

**NITRATE-NITRITE NITROGEN**

|                    |       |       |       |      |        |
|--------------------|-------|-------|-------|------|--------|
| LAKE HURON         | 37690 | 51654 | 22441 | 2074 | 37690  |
| US NON POINT       | 2960  | 1118  | 3074  | 5531 | 79129  |
| CANADIAN NON POINT | 15734 | 52772 | 25515 | 7605 | 25457  |
| TOTAL NON POINT    | 18694 | 2271  | 3863  | 625  | 104586 |
| US POINT           | 8609  | 0     | 36    | 457  | 15408  |
| CANADIAN POINT     | 438   | 2271  | 3899  | 1082 | 931    |
| TOTAL POINT        | 9047  | 53925 | 26304 | 2699 | 16339  |
| US TOTAL           | 11609 | 1118  | 3110  | 5988 | 94537  |
| CANADIAN TOTAL     | 16172 | 55043 | 29414 | 8687 | 26388  |
| BASIN TOTAL        | 65471 |       |       |      | 158615 |

**AMMONIA NITROGEN**

|                    |       |      |      |      |       |
|--------------------|-------|------|------|------|-------|
| LAKE HURON         | 2501  | 635  | 1569 | 335  | 2501  |
| US NON POINT       | 313   | 51   | 254  | 176  | 2052  |
| CANADIAN NON POINT | 692   | 686  | 1623 | 511  | 1173  |
| TOTAL NON POINT    | 1005  | 2482 | 4244 | 753  | 4025  |
| US POINT           | 9638  | 0    | 45   | 346  | 17317 |
| CANADIAN POINT     | 527   | 2482 | 4269 | 1099 | 918   |
| TOTAL POINT        | 10365 | 3117 | 5813 | 1088 | 18235 |
| US TOTAL           | 10151 | 51   | 299  | 522  | 20169 |
| CANADIAN TOTAL     | 1219  | 3168 | 6112 | 1610 | 2091  |
| BASIN TOTAL        | 13871 |      |      |      | 24761 |

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 \* YEARLY SUMMARY FOR \*  
 \* 1972 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL   |
|-------------------------|-------------------|---------------|---------------|---------------|---------|
| <b>ORGANIC NITROGEN</b> |                   |               |               |               |         |
| LAKE MURDO              | 35046             | 6310          | 5207          | 1964          | 35046   |
| US NON POINT            | 1820              | 123           | 1035          | 2683          | 15301   |
| CANADIAN NON POINT      | 3122              | 6433          | 6242          | 4647          | 6963    |
| TOTAL NON POINT         | 4942              | 850           | 1495          | 211           | 22264   |
| US POINT                | 3655              | 0             | 12            | 163           | 5611    |
| CANADIAN POINT          | 155               | 850           | 1507          | 374           | 330     |
| TOTAL POINT             | 3210              | 7160          | 6702          | 2175          | 5941    |
| US TOTAL                | 4875              | 123           | 1047          | 2846          | 20912   |
| CANADIAN TOTAL          | 3277              | 7263          | 7749          | 5021          | 7293    |
| BASIN TOTAL             | 43194             |               |               |               | 63251   |
| <b>CHLORIDE</b>         |                   |               |               |               |         |
| LAKE MURDO              | 1092842           | 376909        | 1124626       | 22558         | 1092842 |
| US NON POINT            | 184211            | 8252          | 28375         | 73219         | 1708304 |
| CANADIAN NON POINT      | 89804             | 385161        | 1153001       | 95777         | 199650  |
| TOTAL NON POINT         | 274015            | 61309         | 121337        | 15185         | 1907954 |
| US POINT                | 804539            | 0             | 943           | 11040         | 1002370 |
| CANADIAN POINT          | 1197461           | 61309         | 122280        | 24225         | 1209844 |
| TOTAL POINT             | 2002000           | 438218        | 1245963       | 37743         | 2211814 |
| US TOTAL                | 984750            | 8252          | 29318         | 84259         | 2710674 |
| CANADIAN TOTAL          | 1287245           | 446470        | 1275281       | 122002        | 1409094 |
| BASIN TOTAL             | 3368657           |               |               |               | 5212610 |
| <b>SILICA</b>           |                   |               |               |               |         |
| LAKE MURDO              | 181874            | 101996        | 49397         | 11409         | 181874  |
| US NON POINT            | 11442             | 718           | 5112          | 12517         | 174244  |
| CANADIAN NON POINT      | 16573             | 102714        | 54509         | 23926         | 34920   |
| TOTAL NON POINT         | 28015             | 1914          | 3648          | 474           | 209164  |
| US POINT                | 6552              | 0             | 24            | 342           | 12568   |
| CANADIAN POINT          | 330               | 1914          | 3672          | 816           | 696     |
| TOTAL POINT             | 6882              | 103910        | 53045         | 11843         | 13284   |
| US TOTAL                | 17994             | 718           | 5136          | 12959         | 186432  |
| CANADIAN TOTAL          | 16903             | 104628        | 50181         | 24742         | 35616   |
| BASIN TOTAL             | 216771            |               |               |               | 404322  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1973 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|-------------------------|-------------------|---------------|---------------|---------------|-------|
| <b>TOTAL PHOSPHORUS</b> |                   |               |               |               |       |
| LAKE HURON              | 2565              | 4059          | 1499          | 224           | 2565  |
| US NON POINT            | 524               | 35            | 317           | 1038          | 6306  |
| CANADIAN NON POINT      | 1866              | 4094          | 1816          | 1262          | 3256  |
| TOTAL NON POINT         | 2390              | 1164          | 2161          | 345           | 9562  |
| US POINT                | 8123              | 0             | 12            | 90            | 11793 |
| CANADIAN POINT          | 91                | 1164          | 2173          | 435           | 193   |
| TOTAL POINT             | 8214              | 5223          | 3660          | 569           | 11986 |
| US TOTAL                | 8647              | 35            | 329           | 1128          | 18099 |
| CANADIAN TOTAL          | 1957              | 5258          | 3989          | 1697          | 3409  |
| BASIN TOTAL             | 13169             |               |               |               | 24113 |

|                         |      |      |      |     |      |
|-------------------------|------|------|------|-----|------|
| <b>ORTHO PHOSPHORUS</b> |      |      |      |     |      |
| LAKE HURON              | 1059 | 584  | 170  | 1   | 1059 |
| US NON POINT            | 160  | 42   | 134  | 160 | 915  |
| CANADIAN NON POINT      | 406  | 626  | 304  | 161 | 762  |
| TOTAL NON POINT         | 566  | 557  | 950  | 166 | 1677 |
| US POINT                | 4068 | 0    | 10   | 47  | 5741 |
| CANADIAN POINT          | 47   | 557  | 960  | 213 | 104  |
| TOTAL POINT             | 4115 | 1141 | 1120 | 167 | 5845 |
| US TOTAL                | 4224 | 42   | 144  | 227 | 6656 |
| CANADIAN TOTAL          | 453  | 1183 | 1264 | 394 | 866  |
| BASIN TOTAL             | 5740 |      |      |     | 8581 |

|                                 |       |       |       |      |        |
|---------------------------------|-------|-------|-------|------|--------|
| <b>NITRATE-NITRITE NITROGEN</b> |       |       |       |      |        |
| LAKE HURON                      | 47497 | 40887 | 17334 | 1620 | 47497  |
| US NON POINT                    | 5039  | 1509  | 3446  | 6014 | 64880  |
| CANADIAN NON POINT              | 17609 | 42396 | 20780 | 7634 | 28578  |
| TOTAL NON POINT                 | 22648 | 2290  | 3422  | 635  | 93458  |
| US POINT                        | 10220 | 0     | 36    | 456  | 16987  |
| CANADIAN POINT                  | 437   | 2290  | 3878  | 1091 | 929    |
| TOTAL POINT                     | 10657 | 43177 | 21176 | 2255 | 17916  |
| US TOTAL                        | 15259 | 1509  | 3442  | 6470 | 81867  |
| CANADIAN TOTAL                  | 18046 | 44686 | 24658 | 8725 | 29507  |
| BASIN TOTAL                     | 40802 |       |       |      | 150871 |

|                         |       |      |      |      |       |
|-------------------------|-------|------|------|------|-------|
| <b>AMMONIA NITROGEN</b> |       |      |      |      |       |
| LAKE HURON              | 3153  | 1032 | 1380 | 231  | 3153  |
| US NON POINT            | 475   | 54   | 249  | 178  | 3118  |
| CANADIAN NON POINT      | 906   | 1086 | 1629 | 409  | 1387  |
| TOTAL NON POINT         | 1381  | 2501 | 4030 | 757  | 4505  |
| US POINT                | 11762 | 0    | 44   | 369  | 19050 |
| CANADIAN POINT          | 520   | 2501 | 4074 | 1126 | 933   |
| TOTAL POINT             | 12282 | 3533 | 5410 | 980  | 19983 |
| US TOTAL                | 12237 | 54   | 293  | 547  | 22168 |
| CANADIAN TOTAL          | 1426  | 3587 | 5703 | 1535 | 2320  |
| BASIN TOTAL             | 16616 |      |      |      | 27641 |

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 \* YEARLY SUMMARY FOR \*  
 \* 1973 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                    | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|--------------------|-------------------|---------------|---------------|---------------|-------|
| ORGANIC NITROGEN   |                   |               |               |               |       |
| LAKE MUPON         | 46444             | 5930          | 4280          | 1210          | 46444 |
| US FOR POINT       | 2894              | 157           | 1047          | 2700          | 14314 |
| CANADIAN FOR POINT | 3474              | 6047          | 5327          | 3910          | 7782  |
| TOTAL FOR POINT    | 6772              | 835           | 1487          | 210           | 22096 |
| US POINT           | 3611              | 0             | 12            | 162           | 6143  |
| CANADIAN POINT     | 155               | 835           | 1499          | 372           | 329   |
| TOTAL POINT        | 3766              | 835           | 1511          | 534           | 6472  |
| US TOTAL           | 4505              | 6765          | 5767          | 1420          | 20857 |
| CANADIAN TOTAL     | 4033              | 157           | 1059          | 811           | 6044  |
| BASIN TOTAL        | 54982             | 6922          | 6826          | 4282          | 75012 |

CHLORIDE

|                    |         |        |         |        |         |
|--------------------|---------|--------|---------|--------|---------|
| LAKE MUPON         | 1442674 | 343247 | 981826  | 17586  | 1442674 |
| US FOR POINT       | 316742  | 9715   | 28341   | 8154   | 1699401 |
| CANADIAN FOR POINT | 102764  | 302962 | 1010167 | 99170  | 222404  |
| TOTAL FOR POINT    | 419506  | 59951  | 122576  | 15425  | 1921805 |
| US POINT           | 852781  | 0      | 939     | 11034  | 1050733 |
| CANADIAN POINT     | 1197462 | 59951  | 123515  | 26459  | 1209435 |
| TOTAL POINT        | 2050243 | 43194  | 110402  | 33011  | 2260168 |
| US TOTAL           | 1169523 | 9715   | 29280   | 92618  | 2750134 |
| CANADIAN TOTAL     | 1304226 | 452913 | 1133662 | 125629 | 1431839 |
| BASIN TOTAL        | 3912423 |        |         |        | 5624647 |

SILICA

|                    |        |       |       |       |        |
|--------------------|--------|-------|-------|-------|--------|
| LAKE MUPON         | 168463 | 81679 | 40249 | 9013  | 168463 |
| US FOR POINT       | 16671  | 869   | 5017  | 13534 | 147612 |
| CANADIAN FOR POINT | 18734  | 82544 | 45266 | 22547 | 38158  |
| TOTAL FOR POINT    | 35405  | 1903  | 3638  | 484   | 185766 |
| US POINT           | 7748   | 0     | 24    | 341   | 13773  |
| CANADIAN POINT     | 330    | 1903  | 3662  | 825   | 695    |
| TOTAL POINT        | 8078   | 83522 | 43887 | 9497  | 14468  |
| US TOTAL           | 24419  | 869   | 5041  | 13675 | 161305 |
| CANADIAN TOTAL     | 19064  | 84451 | 48928 | 23372 | 38849  |
| BASIN TOTAL        | 231946 |       |       |       | 388697 |

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 \* YEARLY SUMMARY FOR \*  
 \* 1974 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | HET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|-------------------------|-------------------|---------------|---------------|---------------|-------|
| <b>TOTAL PHOSPHORUS</b> |                   |               |               |               |       |
| LAKE HURON              | 3122              | 4007          | 1939          | 308           | 3122  |
| US MON POINT            | 571               | 32            | 322           | 1333          | 6825  |
| CANADIAN MON POINT      | 1855              | 4039          | 2261          | 1641          | 3542  |
| TOTAL MON POINT         | 2426              | 869           | 1955          | 317           | 10367 |
| US POINT                | 5783              | 0             | 12            | 89            | 8924  |
| CANADIAN POINT          | 91                | 869           | 1967          | 406           | 192   |
| TOTAL POINT             | 5874              | 869           | 3894          | 625           | 9116  |
| US TOTAL                | 6354              | 4876          | 334           | 1422          | 15749 |
| CANADIAN TOTAL          | 1946              | 32            | 4228          | 3734          | 3734  |
| BASIN TOTAL             | 11422             | 4908          |               | 2047          | 22605 |

|                        |      |      |      |     |      |
|------------------------|------|------|------|-----|------|
| <b>ORTHOPHOSPHORUS</b> |      |      |      |     |      |
| LAKE HURON             | 739  | 625  | 217  | 1   | 739  |
| US MON POINT           | 165  | 40   | 135  | 187 | 1006 |
| CANADIAN MON POINT     | 397  | 665  | 352  | 186 | 759  |
| TOTAL MON POINT        | 562  | 419  | 849  | 154 | 1767 |
| US POINT               | 2697 | 0    | 9    | 47  | 4319 |
| CANADIAN POINT         | 47   | 419  | 858  | 201 | 103  |
| TOTAL POINT            | 2944 | 1044 | 1066 | 155 | 4422 |
| US TOTAL               | 3062 | 40   | 144  | 234 | 5327 |
| CANADIAN TOTAL         | 444  | 1084 | 1210 | 389 | 662  |
| BASIN TOTAL            | 4245 |      |      |     | 6928 |

|                                 |       |       |       |      |        |
|---------------------------------|-------|-------|-------|------|--------|
| <b>NITRATE-NITRILE NITROGEN</b> |       |       |       |      |        |
| LAKE HURON                      | 52834 | 35945 | 15627 | 1609 | 52834  |
| US MON POINT                    | 5295  | 1343  | 3340  | 6037 | 58676  |
| CANADIAN MON POINT              | 17438 | 37288 | 19167 | 7646 | 28156  |
| TOTAL MON POINT                 | 22733 | 2247  | 3757  | 599  | 86834  |
| US POINT                        | 9182  | 0     | 36    | 454  | 16385  |
| CANADIAN POINT                  | 437   | 2247  | 3793  | 1053 | 927    |
| TOTAL POINT                     | 10219 | 38192 | 19584 | 2208 | 17312  |
| US TOTAL                        | 15077 | 1343  | 3376  | 6491 | 75061  |
| CANADIAN TOTAL                  | 17675 | 35535 | 22960 | 8699 | 29085  |
| BASIN TOTAL                     | 85786 |       |       |      | 156980 |

|                         |       |      |      |      |       |
|-------------------------|-------|------|------|------|-------|
| <b>AMMONIA NITROGEN</b> |       |      |      |      |       |
| LAKE HURON              | 3483  | 1391 | 1778 | 240  | 3483  |
| US MON POINT            | 493   | 46   | 239  | 226  | 3902  |
| CANADIAN MON POINT      | 668   | 1437 | 2017 | 466  | 1379  |
| TOTAL MON POINT         | 1361  | 2316 | 3799 | 709  | 5281  |
| US POINT                | 11240 | 0    | 45   | 340  | 18064 |
| CANADIAN POINT          | 522   | 2316 | 3844 | 1049 | 907   |
| TOTAL POINT             | 11762 | 3707 | 5577 | 949  | 18971 |
| US TOTAL                | 11733 | 46   | 5861 | 566  | 21966 |
| CANADIAN TOTAL          | 1390  | 3753 |      | 2286 | 2286  |
| BASIN TOTAL             | 16606 |      |      | 1515 | 27735 |

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 \* YEARLY SUMMARY FOR \*  
 \* 1974 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
 \* \*\*\*\*\*

|                         | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL   |
|-------------------------|-------------------|---------------|---------------|---------------|---------|
| <b>ORGANIC NITROGEN</b> |                   |               |               |               |         |
| LAKE MURON              | 45822             | 6223          | 4639          | 1321          | 45822   |
| US HCN POINT            | 3055              | 144           | 1069          | 2962          | 15238   |
| CANADIAN HCN POINT      | 3767              | 6367          | 5708          | 4283          | 7942    |
| TOTAL HCN POINT         | 6822              | 815           | 1489          | 5959          | 23180   |
| US POINT                | 3457              | 0             | 12            | 162           | 329     |
| CANADIAN POINT          | 155               | 815           | 1501          | 360           | 6288    |
| TOTAL POINT             | 3612              | 7038          | 6128          | 1519          | 21197   |
| US TOTAL                | 6512              | 144           | 1081          | 3124          | 8271    |
| CANADIAN TOTAL          | 3922              | 7182          | 7209          | 4643          | 75290   |
| BASIN TOTAL             | 56256             |               |               |               |         |
| <b>CHLORIDE</b>         |                   |               |               |               |         |
| LAKE MURON              | 1264639           | 401224        | 952261        | 17748         | 1264639 |
| US HCN POINT            | 323275            | 8887          | 28324         | 80607         | 1694508 |
| CANADIAN HCN POINT      | 104048            | 410111        | 980585        | 98355         | 221866  |
| TOTAL HCN POINT         | 427323            | 60469         | 122270        | 14521         | 1916374 |
| US POINT                | 826119            | 0             | 937           | 11034         | 1023379 |
| CANADIAN POINT          | 1197462           | 60469         | 123207        | 25555         | 1209433 |
| TOTAL POINT             | 2023581           | 461693        | 1074531       | 32269         | 2232812 |
| US TOTAL                | 1149394           | 8887          | 29261         | 91641         | 2717887 |
| CANADIAN TOTAL          | 1301510           | 470580        | 1103792       | 123910        | 1431299 |
| BASIN TOTAL             | 3715543           |               |               |               | 5413825 |
| <b>SILICA</b>           |                   |               |               |               |         |
| LAKE MURON              | 186742            | 67464         | 41897         | 9049          | 186742  |
| US HCN POINT            | 17475             | 790           | 5058          | 14282         | 135885  |
| CANADIAN HCN POINT      | 17773             | 68254         | 46955         | 23331         | 37903   |
| TOTAL HCN POINT         | 35248             | 1929          | 3614          | 456           | 173788  |
| US POINT                | 7419              | 0             | 24            | 341           | 13418   |
| CANADIAN POINT          | 330               | 1929          | 3638          | 797           | 695     |
| TOTAL POINT             | 7749              | 69393         | 45511         | 9505          | 14113   |
| US TOTAL                | 24894             | 790           | 5082          | 14623         | 149303  |
| CANADIAN TOTAL          | 18103             | 70183         | 50593         | 24128         | 38598   |
| BASIN TOTAL             | 229739            |               |               |               | 374643  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1975 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|-------------------------|-------------------|---------------|---------------|---------------|-------|
| <b>TOTAL PHOSPHORUS</b> |                   |               |               |               |       |
| LAKE MURUM              | 2022              | 3486          | 1595          | 298           | 2022  |
| US NON POINT            | 485               | 35            | 361           | 999           | 5664  |
| CANADIAN NON POINT      | 1744              | 3521          | 1956          | 1297          | 3139  |
| TOTAL NON POINT         | 2229              | 885           | 1870          | 272           | 9003  |
| US POINT                | 6024              | 0             | 12            | 89            | 9051  |
| CANADIAN POINT          | 91                | 885           | 1882          | 361           | 192   |
| TOTAL POINT             | 6115              | 4371          | 3465          | 570           | 9243  |
| US TOTAL                | 6509              | 35            | 1088          | 331           | 14915 |
| CANADIAN TOTAL          | 1835              | 4406          | 1658          |               | 3331  |
| BASIN TOTAL             | 10366             |               |               |               | 20260 |

|                         |      |      |      |     |      |
|-------------------------|------|------|------|-----|------|
| <b>ORTHO PHOSPHORUS</b> |      |      |      |     |      |
| LAKE MURUM              | 538  | 643  | 178  | 0   | 538  |
| US NON POINT            | 147  | 45   | 158  | 164 | 960  |
| CANADIAN NON POINT      | 387  | 688  | 336  | 164 | 754  |
| TOTAL NON POINT         | 534  | 437  | 600  | 132 | 1722 |
| US POINT                | 3010 | 0    | 12   | 47  | 4379 |
| CANADIAN POINT          | 47   | 437  | 812  | 179 | 106  |
| TOTAL POINT             | 3057 | 1080 | 978  | 132 | 4485 |
| US TOTAL                | 3157 | 45   | 170  | 211 | 5347 |
| CANADIAN TOTAL          | 434  | 1125 | 1140 | 343 | 860  |
| BASIN TOTAL             | 4129 |      |      |     | 6745 |

|                                 |       |       |       |      |        |
|---------------------------------|-------|-------|-------|------|--------|
| <b>NITRATE-NITRITE NITROGEN</b> |       |       |       |      |        |
| LAKE MURUM                      | 47672 | 37145 | 13354 | 1751 | 47672  |
| US NON POINT                    | 4873  | 1338  | 3568  | 5450 | 57123  |
| CANADIAN NON POINT              | 18233 | 38483 | 16922 | 7201 | 28589  |
| TOTAL NON POINT                 | 23106 | 2338  | 3435  | 599  | 05712  |
| US POINT                        | 10608 | 0     | 36    | 456  | 16980  |
| CANADIAN POINT                  | 437   | 2338  | 3471  | 1055 | 929    |
| TOTAL POINT                     | 11045 | 39483 | 16789 | 2350 | 17909  |
| US TOTAL                        | 15481 | 1338  | 3604  | 5906 | 74103  |
| CANADIAN TOTAL                  | 18670 | 40821 | 20393 | 8256 | 29518  |
| BASIN TOTAL                     | 81823 |       |       |      | 151293 |

|                         |       |      |      |      |       |
|-------------------------|-------|------|------|------|-------|
| <b>AMMONIA NITROGEN</b> |       |      |      |      |       |
| LAKE MURUM              | 2126  | 794  | 1671 | 229  | 2126  |
| US NON POINT            | 460   | 47   | 271  | 158  | 3159  |
| CANADIAN NON POINT      | 819   | 846  | 1942 | 387  | 1295  |
| TOTAL NON POINT         | 1279  | 2513 | 4059 | 715  | 4454  |
| US POINT                | 12243 | 0    | 48   | 342  | 19330 |
| CANADIAN POINT          | 527   | 2513 | 4107 | 1057 | 917   |
| TOTAL POINT             | 12770 | 3312 | 5730 | 944  | 20447 |
| US TOTAL                | 12703 | 47   | 319  | 500  | 22689 |
| CANADIAN TOTAL          | 1346  | 3359 | 6049 | 1444 | 944   |
| BASIN TOTAL             | 16175 |      |      |      | 2212  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1975 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
 \* \*\*\*\*\*

|                         | NET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL   |
|-------------------------|-------------------|---------------|---------------|---------------|---------|
| <b>ORGANIC NITROGEN</b> |                   |               |               |               |         |
| LAKE MURON              | 33271             | 4519          | 4209          | 1270          | 33271   |
| US NON POINT            | 2876              | 148           | 1162          | 2636          | 12874   |
| CANADIAN NON POINT      | 3784              | 4667          | 5371          | 3906          | 7690    |
| TOTAL NON POINT         | 6620              | 886           | 1470          | 198           | 20564   |
| US POINT                | 3745              | 0             | 12            | 162           | 6299    |
| CANADIAN POINT          | 155               | 886           | 1482          | 360           | 329     |
| TOTAL POINT             | 3900              | 5405          | 5679          | 1468          | 6628    |
| US TOTAL                | 6621              | 148           | 1174          | 2798          | 19173   |
| CANADIAN TOTAL          | 3899              | 5553          | 6853          | 4266          | 8019    |
| BASIN TOTAL             | 43791             |               |               |               | 60463   |
| <b>CHLORIDE</b>         |                   |               |               |               |         |
| LAKE MURON              | 1088065           | 370283        | 1147344       | 19355         | 1088065 |
| US NON POINT            | 281175            | 9170          | 32104         | 79094         | 1818157 |
| CANADIAN NON POINT      | 103802            | 379453        | 1179448       | 98449         | 224170  |
| TOTAL NON POINT         | 344977            | 62097         | 120966        | 14521         | 2042327 |
| US POINT                | 859191            | 0             | 940           | 11034         | 1056775 |
| CANADIAN POINT          | 1197462           | 62097         | 121906        | 25555         | 1209436 |
| TOTAL POINT             | 2056653           | 432380        | 1268310       | 33876         | 2266211 |
| US TOTAL                | 1140366           | 9170          | 33044         | 90128         | 2874932 |
| CANADIAN TOTAL          | 1301264           | 441550        | 1301354       | 124004        | 1433606 |
| BASIN TOTAL             | 3529695           |               |               |               | 5306603 |
| <b>SILICA</b>           |                   |               |               |               |         |
| LAKE MURON              | 206058            | 76037         | 38165         | 9765          | 206058  |
| US NON POINT            | 16640             | 818           | 5736          | 12657         | 140807  |
| CANADIAN NON POINT      | 18556             | 76855         | 43901         | 22422         | 37767   |
| TOTAL NON POINT         | 35396             | 1940          | 3566          | 456           | 178574  |
| US POINT                | 4042              | 0             | 24            | 341           | 14004   |
| CANADIAN POINT          | 330               | 1940          | 3590          | 797           | 695     |
| TOTAL POINT             | 8372              | 77977         | 41731         | 10221         | 14699   |
| US TOTAL                | 24482             | 818           | 5760          | 12658         | 154811  |
| CANADIAN TOTAL          | 18886             | 76795         | 47491         | 23219         | 38462   |
| BASIN TOTAL             | 249826            |               |               |               | 399331  |

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 YEARLY SUMMARY FOR  
 1976  
 BASIN LOADING IN METRIC TONS PER YEAR  
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|                                 | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL  |
|---------------------------------|-------------------|---------------|---------------|---------------|--------|
| <b>TOTAL PHOSPHORUS</b>         |                   |               |               |               |        |
| LAKE MURON                      | 1373              | 3361          | 1724          | 625           | 1373   |
| US RCP POINT                    | 404               | 50            | 448           | 1343          | 6114   |
| CANADIAN RCP POINT              | 2465              | 3411          | 2172          | 1968          | 4306   |
| TOTAL RCP POINT                 | 2869              | 632           | 1408          | 258           | 10420  |
| US POINT                        | 5739              | 0             | 12            | 211           | 6037   |
| CANADIAN POINT                  | 84                | 632           | 1420          | 373           | 211    |
| TOTAL POINT                     | 5823              | 3993          | 3132          | 883           | 8248   |
| US TOTAL                        | 6143              | 50            | 460           | 1458          | 14151  |
| CANADIAN TOTAL                  | 2549              | 4043          | 3592          | 2341          | 4517   |
| BASIN TOTAL                     | 10065             |               |               |               | 20001  |
| <b>ORTHOPHOSPHORUS</b>          |                   |               |               |               |        |
| LAKE MURON                      | 647               | 581           | 357           | 35            | 647    |
| US RCP POINT                    | 106               | 77            | 204           | 194           | 1079   |
| CANADIAN RCP POINT              | 479               | 658           | 561           | 229           | 954    |
| TOTAL RCP POINT                 | 585               | 313           | 637           | 129           | 2033   |
| US POINT                        | 2159              | 0             | 0             | 59            | 3238   |
| CANADIAN POINT                  | 43                | 313           | 637           | 188           | 102    |
| TOTAL POINT                     | 2202              | 894           | 994           | 164           | 3340   |
| US TOTAL                        | 2265              | 77            | 204           | 253           | 4317   |
| CANADIAN TOTAL                  | 522               | 971           | 1198          | 417           | 1056   |
| BASIN TOTAL                     | 3434              |               |               |               | 6020   |
| <b>NITRATE-NIT-ITE NITROGEN</b> |                   |               |               |               |        |
| LAKE MURON                      | 43067             | 24554         | 10888         | 2308          | 43067  |
| US RCP POINT                    | 5071              | 1598          | 4023          | 7281          | 42821  |
| CANADIAN RCP POINT              | 21825             | 26152         | 14911         | 9589          | 34527  |
| TOTAL RCP POINT                 | 26896             | 2070          | 2796          | 787           | 77346  |
| US POINT                        | 2035              | 36            | 48            | 629           | 7688   |
| CANADIAN POINT                  | 648               | 2106          | 2844          | 1416          | 1361   |
| TOTAL POINT                     | 2683              | 26624         | 13684         | 3095          | 9044   |
| US TOTAL                        | 7106              | 1634          | 4071          | 7910          | 50509  |
| CANADIAN TOTAL                  | 22273             | 28258         | 17755         | 11005         | 35888  |
| BASIN TOTAL                     | 72406             |               |               |               | 129464 |
| <b>AMMONIA NITROGEN</b>         |                   |               |               |               |        |
| LAKE MURON                      | 1829              | 1177          | 2206          | 428           | 1829   |
| US RCP POINT                    | 492               | 63            | 324           | 183           | 4303   |
| CANADIAN RCP POINT              | 1040              | 1240          | 2530          | 611           | 1610   |
| TOTAL RCP POINT                 | 1532              | 2380          | 5521          | 907           | 5913   |
| US POINT                        | 16030             | 48            | 56            | 435           | 24038  |
| CANADIAN POINT                  | 732               | 2428          | 5577          | 1342          | 1271   |
| TOTAL POINT                     | 16762             | 3557          | 7727          | 1335          | 26109  |
| US TOTAL                        | 16522             | 111           | 380           | 1953          | 29141  |
| CANADIAN TOTAL                  | 1772              | 3668          | 8107          | 2881          | 618    |
| BASIN TOTAL                     | 20123             |               |               |               | 33851  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1976 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                    | DE/ST, CLP BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|--------------------|------------------|---------------|---------------|---------------|-------|
| ORGANIC NITROGEN   |                  |               |               |               |       |
| LAKE HURON         | 43055            |               | 4368          |               | 43055 |
| US NON POINT       | 2911             | 5233          | 1299          | 2285          | 11797 |
| CANADIAN NON POINT | 4657             | 168           | 5667          | 3082          | 9206  |
| TOTAL NON POINT    | 7568             | 5001          | 5667          | 5367          | 28003 |
| US POINT           | 5873             | 813           | 1614          | 275           | 8575  |
| CANADIAN POINT     | 215              | 12            | 12            | 223           | 462   |
| TOTAL POINT        | 6088             | 825           | 1626          | 498           | 9037  |
| US TOTAL           | 8784             | 6046          | 5982          | 2560          | 23372 |
| CANADIAN TOTAL     | 4872             | 180           | 1311          | 3305          | 9668  |
| BASIN TOTAL        | 56711            | 6226          | 7293          | 5865          | 76095 |

|                    |         |        |         |        |         |
|--------------------|---------|--------|---------|--------|---------|
| CHLORIDE           |         |        |         |        |         |
| LAKE HURON         | 1150741 |        | 1046388 |        | 1150741 |
| US NON POINT       | 315116  | 319156 | 32896   | 25854  | 1706514 |
| CANADIAN NON POINT | 126280  | 9456   | 1079284 | 93318  | 261950  |
| TOTAL NON POINT    | 481396  | 328612 | 112326  | 119172 | 1968464 |
| US POINT           | 790347  | 58176  | 1170    | 19032  | 979681  |
| CANADIAN POINT     | 1201554 | 931    | 15305   | 15305  | 1218960 |
| TOTAL POINT        | 1991901 | 59107  | 113496  | 34337  | 2198441 |
| US TOTAL           | 1105463 | 377332 | 1158714 | 44866  | 2686395 |
| CANADIAN TOTAL     | 1327834 | 10387  | 34066   | 108623 | 1480910 |
| BASIN TOTAL        | 3584038 | 387719 | 1192780 | 153509 | 5318046 |

|                    |        |       |       |       |        |
|--------------------|--------|-------|-------|-------|--------|
| SILTCA             |        |       |       |       |        |
| LAKE HURON         | 104389 |       | 33808 |       | 104389 |
| US NON POINT       | 16697  | 49910 | 6214  | 12359 | 112774 |
| CANADIAN NON POINT | 22094  | 889   | 40022 | 16336 | 45733  |
| TOTAL NON POINT    | 38791  | 50799 | 3509  | 28695 | 158507 |
| US POINT           | 8040   | 1925  | 36    | 593   | 14067  |
| CANADIAN POINT     | 222    | 24    | 36    | 481   | 763    |
| TOTAL POINT        | 8262   | 1949  | 3545  | 1074  | 14830  |
| US TOTAL           | 24737  | 51835 | 37317 | 12952 | 126841 |
| CANADIAN TOTAL     | 22316  | 913   | 6250  | 17017 | 46496  |
| BASIN TOTAL        | 151442 | 52748 | 43567 | 29669 | 277726 |

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 \* YEARLY SUMMARY FOR \*  
 \* 1977 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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| DET/ST-CLR BASIN   | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|--------------------|---------------|---------------|---------------|-------|
| LAKE MURON         | 1187          | 2194          | 783           | 1187  |
| US NCA POINT       | 179           | 4620          | 1177          | 7736  |
| CANADIAN NCA POINT | 2501          | 67            | 4174          | 4174  |
| TOTAL NCA POINT    | 2680          | 4687          | 1920          | 11910 |
| US POINT           | 4331          | 823           | 282           | 7164  |
| CANADIAN POINT     | 119           | 0             | 107           | 230   |
| TOTAL POINT        | 4450          | 823           | 369           | 7402  |
| US TOTAL           | 4510          | 5403          | 1025          | 14900 |
| CANADIAN TOTAL     | 2620          | 67            | 441           | 4412  |
| BASIN TOTAL        | 8517          | 5510          | 2309          | 20499 |

TOTAL PHOSPHORUS

OMTMO PHOSPHORUS

|                    |      |      |     |      |
|--------------------|------|------|-----|------|
| LAKE MURON         | 558  | 364  | 16  | 558  |
| US NCA POINT       | 53   | 176  | 171 | 1013 |
| CANADIAN NCA POINT | 464  | 540  | 187 | 856  |
| TOTAL NCA POINT    | 517  | 671  | 142 | 1069 |
| US POINT           | 1753 | 871  | 54  | 3104 |
| CANADIAN POINT     | 60   | 0    | 114 | 114  |
| TOTAL POINT        | 1813 | 871  | 196 | 3298 |
| US TOTAL           | 1806 | 1235 | 158 | 4197 |
| CANADIAN TOTAL     | 524  | 176  | 225 | 970  |
| BASIN TOTAL        | 2888 | 1411 | 383 | 5725 |

NITRATE-NITRITE NITROGEN

|                    |       |       |       |        |
|--------------------|-------|-------|-------|--------|
| LAKE MURON         | 37214 | 16875 | 3074  | 37214  |
| US NCA POINT       | 3005  | 3941  | 6336  | 67077  |
| CANADIAN NCA POINT | 20762 | 20816 | 9410  | 32694  |
| TOTAL NCA POINT    | 23767 | 2858  | 692   | 99771  |
| US POINT           | 1760  | 48    | 537   | 7856   |
| CANADIAN POINT     | 921   | 2906  | 1429  | 1529   |
| TOTAL POINT        | 2681  | 19733 | 3466  | 9385   |
| US TOTAL           | 4765  | 19733 | 6873  | 74933  |
| CANADIAN TOTAL     | 21683 | 3989  | 10839 | 34223  |
| BASIN TOTAL        | 63662 | 23722 | 10839 | 146370 |

AMMONIA NITROGEN

|                    |       |      |      |       |
|--------------------|-------|------|------|-------|
| LAKE MURON         | 1579  | 673  | 231  | 1579  |
| US NCA POINT       | 312   | 351  | 165  | 1985  |
| CANADIAN NCA POINT | 829   | 1024 | 396  | 1402  |
| TOTAL NCA POINT    | 1141  | 5616 | 1035 | 3387  |
| US POINT           | 13558 | 59   | 392  | 22693 |
| CANADIAN POINT     | 907   | 5675 | 1427 | 1382  |
| TOTAL POINT        | 14465 | 6289 | 1266 | 24075 |
| US TOTAL           | 13670 | 410  | 557  | 24678 |
| CANADIAN TOTAL     | 1736  | 6649 | 1823 | 2784  |
| BASIN TOTAL        | 17185 | 3334 | 1823 | 29041 |

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 \* YEARLY SUMMARY FOR \*  
 \* 1977 \*  
 \* HASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | DET/ST,CLR HASIN | WESTERN HASIN | CENTRAL BASIN | EASTERN HASIN | TOTAL   |
|-------------------------|------------------|---------------|---------------|---------------|---------|
| <b>ORGANIC NITROGEN</b> |                  |               |               |               |         |
| LAKE MURON              | 37204            | 16156         | 10135         | 2208          | 37204   |
| US NON POINT            | 4257             | 171           | 1212          | 2904          | 32836   |
| CANADIAN NON POINT      | 4693             | 16327         | 11347         | 5192          | 8980    |
| TOTAL NON POINT         | 8950             | 928           | 1071          | 317           | 41816   |
| US POINT                | 4950             | 12            | 12            | 198           | 7866    |
| CANADIAN POINT          | 329              | 940           | 1683          | 515           | 581     |
| TOTAL POINT             | 5279             | 17084         | 11806         | 2605          | 8417    |
| US TOTAL                | 9207             | 183           | 1224          | 3102          | 40702   |
| CANADIAN TOTAL          | 5022             | 17267         | 13030         | 5707          | 9511    |
| HASIN TOTAL             | 51433            |               |               |               | 87437   |
| <b>CHLORINE</b>         |                  |               |               |               |         |
| LAKE MURON              | 994361           | 291946        | 411306        | 30611         | 994361  |
| US NON POINT            | 177560           | 10210         | 33610         | 87450         | 911423  |
| CANADIAN NON POINT      | 113156           | 302156        | 444916        | 118061        | 244426  |
| TOTAL NON POINT         | 290716           | 65454         | 117297        | 21614         | 1155849 |
| US POINT                | 758496           | 468           | 1119          | 1340          | 962061  |
| CANADIAN POINT          | 1209154          | 65922         | 118416        | 35154         | 1224281 |
| TOTAL POINT             | 1967650          | 357400        | 528603        | 58225         | 2187142 |
| US TOTAL                | 936056           | 10678         | 34729         | 100990        | 1874204 |
| CANADIAN TOTAL          | 1322310          | 368070        | 563332        | 153215        | 1468707 |
| HASIN TOTAL             | 3252727          |               |               |               | 4337352 |
| <b>SILICA</b>           |                  |               |               |               |         |
| LAKE MURON              | 90204            | 43237         | 41481         | 9993          | 90204   |
| US NON POINT            | 11290            | 956           | 5968          | 15009         | 106001  |
| CANADIAN NON POINT      | 22158            | 48193         | 47449         | 25002         | 88091   |
| TOTAL NON POINT         | 33448            | 2055          | 3662          | 675           | 150092  |
| US POINT                | 6804             | 12            | 36            | 424           | 13196   |
| CANADIAN POINT          | 695              | 2067          | 3698          | 1099          | 1167    |
| TOTAL POINT             | 7499             | 45292         | 45143         | 10668         | 14363   |
| US TOTAL                | 18094            | 968           | 6004          | 15433         | 119197  |
| CANADIAN TOTAL          | 22853            | 46260         | 51147         | 26101         | 45258   |
| HASIN TOTAL             | 131151           |               |               |               | 234659  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1978 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                    | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL |
|--------------------|-------------------|---------------|---------------|---------------|-------|
| LAKE HURON         | 1613              | 2228          | 2091          | 239           | 1613  |
| US NON POINT       | 437               | 38            | 376           | 407           | 4985  |
| CANADIAN NON POINT | 564               | 2266          | 2417          | 646           | 1385  |
| TOTAL NON POINT    | 1001              | 740           | 2694          | 262           | 6330  |
| US POINT           | 3012              | 0             | 12            | 84            | 6703  |
| CANADIAN POINT     | 183               | 740           | 2701          | 306           | 279   |
| TOTAL POINT        | 3195              | 2968          | 4730          | 501           | 6982  |
| US TOTAL           | 3489              | 38            | 388           | 491           | 11648 |
| CANADIAN TOTAL     | 747               | 3006          | 5118          | 992           | 1684  |
| BASIN TOTAL        | 5809              |               |               |               | 14925 |

TOTAL PHOSPHORUS

ORTHOPHOSPHORUS

|                    |      |     |      |     |      |
|--------------------|------|-----|------|-----|------|
| LAKE HURON         | 657  | 614 | 310  | 10  | 657  |
| US NON POINT       | 132  | 16  | 115  | 109 | 1066 |
| CANADIAN NON POINT | 245  | 630 | 425  | 119 | 485  |
| TOTAL NON POINT    | 377  | 360 | 1330 | 131 | 1551 |
| US POINT           | 91   | 0   | 11   | 45  | 3236 |
| CANADIAN POINT     | 1506 | 360 | 1341 | 176 | 147  |
| TOTAL POINT        | 1597 | 974 | 1640 | 141 | 3383 |
| US TOTAL           | 336  | 16  | 126  | 154 | 4302 |
| CANADIAN TOTAL     | 2540 | 990 | 1766 | 295 | 632  |
| BASIN TOTAL        |      |     |      |     | 5591 |

NITRATE-NITRITE-NITROGEN

|                    |       |       |       |      |        |
|--------------------|-------|-------|-------|------|--------|
| LAKE HURON         | 43639 | 25192 | 12742 | 1713 | 43639  |
| US NON POINT       | 2239  | 1537  | 3970  | 5596 | 41886  |
| CANADIAN NON POINT | 10531 | 26729 | 16712 | 7309 | 21634  |
| TOTAL NON POINT    | 12770 | 2034  | 3048  | 778  | 63520  |
| US POINT           | 3816  | 36    | 48    | 563  | 9676   |
| CANADIAN POINT     | 7275  | 2070  | 3096  | 1301 | 7922   |
| TOTAL POINT        | 11091 | 27226 | 15790 | 2491 | 17598  |
| US TOTAL           | 6055  | 1573  | 4018  | 6159 | 51562  |
| CANADIAN TOTAL     | 17606 | 24799 | 19808 | 8650 | 29556  |
| BASIN TOTAL        | 67500 |       |       |      | 124757 |

AMMONIA NITROGEN

|                    |       |      |      |      |       |
|--------------------|-------|------|------|------|-------|
| LAKE HURON         | 1779  | 1871 | 435  | 139  | 1779  |
| US NON POINT       | 117   | 54   | 259  | 157  | 2562  |
| CANADIAN NON POINT | 400   | 1925 | 694  | 296  | 870   |
| TOTAL NON POINT    | 517   | 2380 | 5583 | 897  | 3432  |
| US POINT           | 12197 | 47   | 59   | 349  | 21057 |
| CANADIAN POINT     | 1742  | 2427 | 5642 | 1206 | 2197  |
| TOTAL POINT        | 13939 | 4251 | 6018 | 1036 | 23254 |
| US TOTAL           | 12314 | 101  | 316  | 506  | 23619 |
| CANADIAN TOTAL     | 2142  | 4352 | 6336 | 1542 | 3067  |
| BASIN TOTAL        | 14235 |      |      |      | 28465 |

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 \* YEARLY SUMMARY FOR \*  
 \* 1978 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL   |
|-------------------------|-------------------|---------------|---------------|---------------|---------|
| <b>ORGANIC NITROGEN</b> |                   |               |               |               |         |
| LAKE MURON              | 43673             | 8622          | 9641          | 958           | 43673   |
| US MUY POINT            | 989               | 116           | 984           | 2077          | 20410   |
| CANADIAN MUY POINT      | 2619              | 8938          | 10625         | 3035          | 5796    |
| TOTAL MUY POINT         | 3608              | 879           | 1797          | 274           | 26206   |
| US POINT                | 5257              | 12            | 12            | 198           | 2007    |
| CANADIAN POINT          | 2585              | 891           | 1809          | 472           | 11014   |
| TOTAL POINT             | 7842              | 9701          | 11438         | 1232          | 28617   |
| US TOTAL                | 6246              | 128           | 996           | 2275          | 8603    |
| CANADIAN TOTAL          | 5204              | 9829          | 12434         | 3507          | 80893   |
| BASIN TOTAL             | 55123             |               |               |               |         |
| <b>CHLORINE</b>         |                   |               |               |               |         |
| LAKE MURON              | 1007387           | 239695        | 196756        | 17204         | 1007387 |
| US MUY POINT            | 170871            | 8995          | 26412         | 58614         | 624526  |
| CANADIAN MUY POINT      | 49540             | 248690        | 223168        | 76018         | 143761  |
| TOTAL MUY POINT         | 220411            | 63711         | 123679        | 18073         | 768287  |
| US POINT                | 725628            | 885           | 1143          | 13644         | 932091  |
| CANADIAN POINT          | 1217064           | 64596         | 125022        | 32517         | 1232736 |
| TOTAL POINT             | 1942692           | 303806        | 320635        | 36077         | 2104827 |
| US TOTAL                | 896499            | 9880          | 27555         | 72458         | 1556617 |
| CANADIAN TOTAL          | 1266004           | 313286        | 348190        | 108535        | 1376497 |
| BASIN TOTAL             | 3170490           |               |               |               | 3940501 |
| <b>SILICA</b>           |                   |               |               |               |         |
| LAKE MURON              | 83457             | 39617         | 31412         | 5274          | 83457   |
| US MUY POINT            | 6598              | 752           | 3010          | 7170          | 82901   |
| CANADIAN MUY POINT      | 16193             | 40369         | 34422         | 12444         | 27125   |
| TOTAL MUY POINT         | 22791             | 1947          | 3683          | 587           | 110026  |
| US POINT                | 10027             | 24            | 36            | 425           | 16444   |
| CANADIAN POINT          | 5520              | 1971          | 3919          | 1012          | 6005    |
| TOTAL POINT             | 15547             | 41564         | 35295         | 5861          | 22449   |
| US TOTAL                | 16625             | 776           | 3046          | 7595          | 99345   |
| CANADIAN TOTAL          | 21713             | 42340         | 38341         | 13456         | 33130   |
| BASIN TOTAL             | 121795            |               |               |               | 215932  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1979 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                                 | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL  |
|---------------------------------|-------------------|---------------|---------------|---------------|--------|
| <b>TOTAL PHOSPHORUS</b>         |                   |               |               |               |        |
| LAKE MURON                      | 1703              | 2013          | 2595          |               | 1703   |
| US NON POINT                    | 424               |               |               | 552           | 552    |
| CANADIAN NON POINT              | 726               | 57            | 502           | 578           | 1883   |
| TOTAL NON POINT                 | 1170              | 2070          | 3097          | 1130          | 7467   |
| US POINT                        | 1960              | 616           | 1969          | 234           | 4779   |
| CANADIAN POINT                  | 212               | 0             | 12            | 60            | 284    |
| TOTAL POINT                     | 2172              | 616           | 1981          | 294           | 5063   |
| US TOTAL                        | 2384              | 2629          | 4564          | 786           | 10363  |
| CANADIAN TOTAL                  | 958               | 57            | 514           | 638           | 2167   |
| BASIN TOTAL                     | 5005              | 2686          | 5078          | 1424          | 14233  |
| <b>ORTHO PHOSPHORUS</b>         |                   |               |               |               |        |
| LAKE MURON                      | 694               | 652           | 340           |               | 694    |
| US NON POINT                    | 137               |               |               | 21            | 1150   |
| CANADIAN NON POINT              | 330               | 23            | 159           | 168           | 680    |
| TOTAL NON POINT                 | 467               | 675           | 499           | 189           | 1830   |
| US POINT                        | 1427              | 305           | 957           | 118           | 2807   |
| CANADIAN POINT                  | 103               | 0             | 0             | 31            | 134    |
| TOTAL POINT                     | 1530              | 305           | 957           | 149           | 2941   |
| US TOTAL                        | 1564              | 957           | 1297          | 139           | 3957   |
| CANADIAN TOTAL                  | 433               | 23            | 159           | 199           | 814    |
| BASIN TOTAL                     | 2691              | 980           | 1456          | 338           | 5465   |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |               |               |               |        |
| LAKE MURON                      | 46103             | 29048         | 19359         |               | 46103  |
| US NON POINT                    | 2203              |               |               | 2524          | 53134  |
| CANADIAN NON POINT              | 10426             | 2367          | 5842          | 7439          | 30076  |
| TOTAL NON POINT                 | 16631             | 31415         | 25201         | 9963          | 63210  |
| US POINT                        | 3785              | 2309          | 3294          | 868           | 10216  |
| CANADIAN POINT                  | 7364              | 36            | 48            | 496           | 7944   |
| TOTAL POINT                     | 11109             | 2345          | 3342          | 1364          | 18160  |
| US TOTAL                        | 5988              | 31357         | 22653         | 3392          | 63350  |
| CANADIAN TOTAL                  | 21792             | 2403          | 5890          | 7935          | 38020  |
| BASIN TOTAL                     | 73403             | 33760         | 28543         | 11327         | 147473 |
| <b>AMMONIA NITROGEN</b>         |                   |               |               |               |        |
| LAKE MURON                      | 1878              | 1746          | 469           |               | 1878   |
| US NON POINT                    | 92                |               |               | 193           | 2500   |
| CANADIAN NON POINT              | 457               | 73            | 358           | 255           | 1143   |
| TOTAL NON POINT                 | 549               | 1819          | 827           | 448           | 3643   |
| US POINT                        | 12284             | 2968          | 5682          | 1000          | 21914  |
| CANADIAN POINT                  | 1895              | 48            | 60            | 357           | 2360   |
| TOTAL POINT                     | 14179             | 3016          | 5722          | 1357          | 24274  |
| US TOTAL                        | 12376             | 4714          | 6131          | 1193          | 24414  |
| CANADIAN TOTAL                  | 2352              | 121           | 478           | 612           | 3503   |
| BASIN TOTAL                     | 16006             | 4835          | 6549          | 1805          | 29795  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1979 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
 \* \*\*\*\*\*

|                    | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL   |
|--------------------|-------------------|---------------|---------------|---------------|---------|
| ORGANIC NITROGEN   |                   |               |               |               |         |
| LAKE MURON         | 46136             | 8522          | 13340         | 1727          | 46136   |
| US NON POINT       | 1000              | 172           | 1325          | 2668          | 24589   |
| CANADIAN NON POINT | 3455              | 4694          | 18665         | 4395          | 2668    |
| TOTAL NON POINT    | 4455              | 931           | 1845          | 305           | 32209   |
| US POINT           | 5265              | 12            | 19            | 174           | 8346    |
| CANADIAN POINT     | 2603              | 983           | 1864          | 479           | 2808    |
| TOTAL POINT        | 7868              | 9453          | 15105         | 2032          | 11154   |
| US TOTAL           | 6265              | 184           | 1344          | 2842          | 32935   |
| CANADIAN TOTAL     | 6058              | 9637          | 16529         | 4874          | 10428   |
| WASTW TOTAL        | 59459             |               |               |               | 89499   |
| CHLORIDE           |                   |               |               |               |         |
| LAKE MURON         | 1064220           | 284869        | 301421        | 25465         | 1064220 |
| US NON POINT       | 184524            | 12641         | 36120         | 73351         | 796279  |
| CANADIAN NON POINT | 74090             | 297510        | 337541        | 98016         | 196202  |
| TOTAL NON POINT    | 258614            | 60587         | 127345        | 21007         | 992481  |
| US POINT           | 728046            | 968           | 1226          | 11949         | 981025  |
| CANADIAN POINT     | 1217510           | 65555         | 128611        | 32954         | 1231651 |
| TOTAL POINT        | 1945556           | 349456        | 428806        | 48472         | 2172678 |
| US TOTAL           | 912570            | 13649         | 37346         | 85300         | 1737304 |
| CANADIAN TOTAL     | 1291600           | 363065        | 466152        | 131772        | 1427855 |
| WASTW TOTAL        | 3208390           |               |               |               | 4229379 |
| SILICA             |                   |               |               |               |         |
| LAKE MURON         | 88144             | 46284         | 46612         | 9091          | 88144   |
| US NON POINT       | 6988              | 1125          | 4051          | 8563          | 108935  |
| CANADIAN NON POINT | 20155             | 47369         | 50663         | 17654         | 33894   |
| TOTAL NON POINT    | 27143             | 1900          | 3979          | 658           | 142829  |
| US POINT           | 10011             | 31            | 36            | 377           | 14636   |
| CANADIAN POINT     | 5594              | 2021          | 4015          | 1035          | 6038    |
| TOTAL POINT        | 15605             | 48234         | 50591         | 9749          | 22676   |
| US TOTAL           | 16499             | 1156          | 8087          | 8940          | 125573  |
| CANADIAN TOTAL     | 25749             | 49390         | 54678         | 16689         | 39932   |
| WASTW TOTAL        | 130912            |               |               |               | 253669  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1980 \*  
 \* BASIN LOADING IN MEGPIC TONS PER YEAR \*  
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|                                | DET/ST. CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL  |
|--------------------------------|-------------------|---------------|---------------|---------------|--------|
| <b>TOTAL PHOSPHORUS</b>        |                   |               |               |               |        |
| LAKE HURON                     | 1827              | 1904          | 1626          | 210           | 1827   |
| US MON POINT                   | 436               | 42            | 370           | 342           | 4176   |
| CANADIAN MON POINT             | 450               | 1946          | 1996          | 552           | 5386   |
| TOTAL MON POINT                | 882               | 601           | 1498          | 222           | 4174   |
| US POINT                       | 1853              | 12            | 12            | 72            | 323    |
| CANADIAN POINT                 | 227               | 613           | 1510          | 294           | 4497   |
| TOTAL POINT                    | 2080              | 2505          | 3124          | 432           | 8350   |
| US TOTAL                       | 683               | 54            | 382           | 414           | 1533   |
| CANADIAN TOTAL                 | 4799              | 2559          | 3506          | 846           | 11710  |
| <b>ORTHO PHOSPHORUS</b>        |                   |               |               |               |        |
| LAKE HURON                     | 730               | 642           | 226           | 15            | 730    |
| US MON POINT                   | 108               | 16            | 106           | 105           | 1031   |
| CANADIAN MON POINT             | 339               | 658           | 334           | 120           | 420    |
| TOTAL MON POINT                | 1452              | 299           | 731           | 108           | 1451   |
| US POINT                       | 115               | 0             | 0             | 36            | 2590   |
| CANADIAN POINT                 | 1567              | 299           | 731           | 144           | 151    |
| TOTAL POINT                    | 1600              | 941           | 957           | 123           | 2741   |
| US TOTAL                       | 306               | 16            | 106           | 141           | 3621   |
| CANADIAN TOTAL                 | 2636              | 957           | 1065          | 264           | 571    |
| BASIN TOTAL                    |                   |               |               |               | 4922   |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |               |               |               |        |
| LAKE HURON                     | 48506             | 28406         | 13143         | 1743          | 48506  |
| US MON POINT                   | 2240              | 443           | 2797          | 5512          | 45532  |
| CANADIAN MON POINT             | 10195             | 28409         | 15400         | 7255          | 18947  |
| TOTAL MON POINT                | 12435             | 2407          | 3574          | 990           | 64479  |
| US POINT                       | 4040              | 120           | 48            | 593           | 11016  |
| CANADIAN POINT                 | 7340              | 2527          | 3627          | 1583          | 8141   |
| TOTAL POINT                    | 11420             | 30813         | 16722         | 2733          | 19157  |
| US TOTAL                       | 6240              | 543           | 2845          | 6105          | 56548  |
| CANADIAN TOTAL                 | 17575             | 31376         | 19567         | 8836          | 27088  |
| BASIN TOTAL                    | 72361             |               |               |               | 132142 |
| <b>AMMONIA NITROGEN</b>        |                   |               |               |               |        |
| LAKE HURON                     | 1970              | 1833          | 183           | 146           | 1970   |
| US MON POINT                   | 64                | 20            | 205           | 72            | 2226   |
| CANADIAN MON POINT             | 197               | 1053          | 368           | 218           | 494    |
| TOTAL MON POINT                | 261               | 3138          | 6078          | 1134          | 2720   |
| US POINT                       | 12758             | 144           | 60            | 378           | 23108  |
| CANADIAN POINT                 | 1830              | 3282          | 6138          | 1512          | 2612   |
| TOTAL POINT                    | 14548             | 4971          | 6261          | 1280          | 25520  |
| US TOTAL                       | 12022             | 164           | 245           | 450           | 25334  |
| CANADIAN TOTAL                 | 2027              | 5135          | 6526          | 1730          | 2906   |
| BASIN TOTAL                    | 16019             |               |               |               | 30210  |

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 \* YEARLY SUMMARY FOR \*  
 \* 1980 \*  
 \* BASIN LOADING IN METRIC TONS PER YEAR \*  
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|                         | DEI/ST.CLR BASIN | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL   |
|-------------------------|------------------|---------------|---------------|---------------|---------|
| <b>ORGANIC MATERIAL</b> |                  |               |               |               |         |
| LAKE MURUM              | 48011            | 8112          | 7540          | 981           | 48011   |
| US MUM POINT            | 1062             | 110           | 1019          | 1824          | 17695   |
| CANADIAN MUM POINT      | 2104             | 8222          | 8559          | 2805          | 5057    |
| TOTAL MUM POINT         | 3166             | 992           | 1937          | 384           | 22752   |
| US POINT                | 5463             | 47            | 12            | 211           | 5746    |
| CANADIAN POINT          | 2605             | 1039          | 1989          | 565           | 2875    |
| TOTAL POINT             | 8068             | 9104          | 9477          | 1335          | 11621   |
| US TOTAL                | 4525             | 157           | 1031          | 2035          | 26441   |
| CANADIAN TOTAL          | 4709             | 9261          | 10508         | 3370          | 7932    |
| BASIN TOTAL             | 59285            |               |               |               | 82384   |
| <b>CHLORIDE</b>         |                  |               |               |               |         |
| LAKE MURUM              | 1074955          | 318616        | 197647        | 18944         | 1074955 |
| US MUM POINT            | 221616           | 2628          | 19650         | 59591         | 756823  |
| CANADIAN MUM POINT      | 47482            | 321244        | 217297        | 78335         | 129311  |
| TOTAL MUM POINT         | 269058           | 67528         | 133026        | 23965         | 866134  |
| US POINT                | 743301           | 2964          | 1158          | 14394         | 967820  |
| CANADIAN POINT          | 548695           | 70492         | 134184        | 38359         | 567211  |
| TOTAL POINT             | 1291926          | 386144        | 330673        | 42909         | 1535031 |
| US TOTAL                | 964917           | 5592          | 20808         | 73945         | 1724643 |
| CANADIAN TOTAL          | 596137           | 391736        | 351461        | 116894        | 696522  |
| BASIN TOTAL             | 2634009          |               |               |               | 3896120 |
| <b>SILICA</b>           |                  |               |               |               |         |
| LAKE MURUM              | 85413            | 46506         | 29233         | 5694          | 85413   |
| US MUM POINT            | 7474             | 491           | 3016          | 7091          | 86907   |
| CANADIAN MUM POINT      | 13195            | 46997         | 32249         | 12765         | 23793   |
| TOTAL MUM POINT         | 20669            | 2092          | 4166          | 784           | 112700  |
| US POINT                | 10421            | 95            | 36            | 450           | 17423   |
| CANADIAN POINT          | 5586             | 2147          | 4202          | 1194          | 6167    |
| TOTAL POINT             | 16007            | 48598         | 33399         | 6438          | 23590   |
| US TOTAL                | 17895            | 546           | 3052          | 7541          | 106330  |
| CANADIAN TOTAL          | 18741            | 49144         | 36451         | 13979         | 29960   |
| BASIN TOTAL             | 122049           |               |               |               | 221703  |

**Appendix 2**

**Monthly Nutrient Loads to Lake Erie**

**1970-1980**

This appendix presents a yearly summary for calculated nutrient loads to Lake Erie for the years 1970-1980. The presented loads are tributary loads only and do not account for shoreline erosion, atmospheric inputs, and sediment inputs. The loads are for total phosphorus as P, nitrite-nitrate nitrogen as N, ammonia nitrogen as N, organic nitrogen as N, chloride as Cl, and silica as SiO and are broken down into components for the Detroit/St. Clair River Basin, the Western Basin, the Central Basin, and the Eastern Basin of Lake Erie. These are divided into point and non point and total point and non point loads.

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JANUARY, 1970  
(GIVE DAILY LOADS IN KG/DAY)

|                                 | MT/ST. CLP. BASIN | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                   |                |                    |
| LAKE MURRAY                     | 182 ( 5871)       | 2 ( 65)         | 156 ( 5032)       | 20 ( 645)      | 182 ( 5871)        |
| LAKE PULF                       | 48 ( 1548)        | 106 ( 3419)     | 261 ( 8419)       | 54 ( 1742)     | 226 ( 7290)        |
| PULF                            | 566 ( 18258)      | 104 ( 3404)     | 417 ( 13451)      | 74 ( 2387)     | 987 ( 31830)       |
| TOTAL                           | 796 ( 25677)      |                 |                   |                | 1395 ( 44999)      |
| <b>ORGANIC PHOSPHORUS</b>       |                   |                 |                   |                |                    |
| LAKE MURRAY                     | 82 ( 2645)        | 6 ( 194)        | 21 ( 677)         | 1 ( 32)        | 82 ( 2645)         |
| LAKE PULF                       | 14 ( 452)         | 48 ( 1548)      | 115 ( 3710)       | 26 ( 839)      | 42 ( 1355)         |
| PULF                            | 264 ( 9161)       | 54 ( 1742)      | 136 ( 4387)       | 27 ( 871)      | 473 ( 15258)       |
| TOTAL                           | 360 ( 12258)      |                 |                   |                | 597 ( 19258)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                 |                   |                |                    |
| LAKE MURRAY                     | 2706 ( 87290)     | 466 ( 15032)    | 1059 ( 34161)     | 108 ( 3484)    | 2706 ( 87290)      |
| LAKE PULF                       | 391 ( 11000)      | 180 ( 5806)     | 307 ( 9903)       | 83 ( 2677)     | 1974 ( 63677)      |
| PULF                            | 741 ( 23903)      | 646 ( 20838)    | 1366 ( 44064)     | 191 ( 6161)    | 1311 ( 42289)      |
| TOTAL                           | 3738 ( 122143)    |                 |                   |                | 5991 ( 193256)     |
| <b>AMMONIA-NITROGEN</b>         |                   |                 |                   |                |                    |
| LAKE MURRAY                     | 402 ( 12968)      | 2 ( 65)         | 100 ( 3226)       | 12 ( 387)      | 402 ( 12968)       |
| LAKE PULF                       | 24 ( 774)         | 184 ( 5935)     | 397 ( 12806)      | 73 ( 2355)     | 138 ( 4452)        |
| PULF                            | 840 ( 27097)      | 186 ( 6000)     | 497 ( 16032)      | 85 ( 2742)     | 1494 ( 48193)      |
| TOTAL                           | 1266 ( 40839)     |                 |                   |                | 2034 ( 65613)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                   |                |                    |
| LAKE MURRAY                     | 3357 ( 108290)    | 110 ( 3548)     | 383 ( 12355)      | 169 ( 5452)    | 3357 ( 108290)     |
| LAKE PULF                       | 122 ( 3935)       | 68 ( 2194)      | 161 ( 5194)       | 31 ( 1000)     | 784 ( 25290)       |
| PULF                            | 261 ( 8419)       | 176 ( 5742)     | 544 ( 17549)      | 200 ( 6452)    | 521 ( 16807)       |
| TOTAL                           | 3740 ( 120640)    |                 |                   |                | 4662 ( 150387)     |
| <b>CHLORINE</b>                 |                   |                 |                   |                |                    |
| LAKE MURRAY                     | 84020 ( 2710323)  | 9872 ( 318452)  | 96732 ( 3120387)  | 3194 ( 103032) | 84020 ( 2710323)   |
| LAKE PULF                       | 4129 ( 133194)    | 5013 ( 161710)  | 10214 ( 329484)   | 2189 ( 70613)  | 113927 ( 3675065)  |
| PULF                            | 165903 ( 5351710) | 14885 ( 480162) | 106946 ( 3449671) | 5383 ( 173645) | 183319 ( 5913517)  |
| TOTAL                           | 254052 ( 8195227) |                 |                   |                | 381266 ( 12298405) |
| <b>SILICA</b>                   |                   |                 |                   |                |                    |
| LAKE MURRAY                     | 12261 ( 395516)   | 1494 ( 48355)   | 2497 ( 93052)     | 823 ( 26588)   | 12261 ( 395516)    |
| LAKE PULF                       | 721 ( 23258)      | 157 ( 5005)     | 307 ( 9903)       | 68 ( 2194)     | 540 ( 171613)      |
| PULF                            | 563 ( 18161)      | 1650 ( 53420)   | 3204 ( 103355)    | 891 ( 28742)   | 1095 ( 35323)      |
| TOTAL                           | 13545 ( 436935)   |                 |                   |                | 19296 ( 622452)    |

# BASED LOADINGS IN METRIC TONS PER FURTH FOR FEBRUARY, 1970 (AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     |                  |                   | CENTRAL BASIN  |                    |  | EASTERN BASIN |  |  | TOTAL |
|---------------------------------|-------------------|------------------|-------------------|----------------|--------------------|--|---------------|--|--|-------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                   |                |                    |  |               |  |  |       |
| LAKE MURPHY                     | 170 ( 6551)       | 204 ( 8714)      | 218 ( 7786)       | 45 ( 1607)     | 178 ( 6357)        |  |               |  |  |       |
| PO POINT                        | 76 ( 2714)        | 131 ( 4674)      | 253 ( 9036)       | 48 ( 1714)     | 543 ( 20421)       |  |               |  |  |       |
| POINT                           | 513 ( 18321)      | 375 ( 13393)     | 471 ( 16822)      | 93 ( 3321)     | 945 ( 33750)       |  |               |  |  |       |
| TOTAL                           | 767 ( 27342)      |                  |                   |                | 1706 ( 60428)      |  |               |  |  |       |
| <b>ORTHOPHOSPHORUS</b>          |                   |                  |                   |                |                    |  |               |  |  |       |
| LAKE MURPHY                     | 80 ( 2857)        | 47 ( 1679)       | 34 ( 1214)        | 5 ( 179)       | 80 ( 2857)         |  |               |  |  |       |
| PO POINT                        | 21 ( 740)         | 66 ( 2357)       | 112 ( 4000)       | 23 ( 821)      | 107 ( 3822)        |  |               |  |  |       |
| POINT                           | 257 ( 9174)       | 113 ( 4036)      | 146 ( 5214)       | 28 ( 1000)     | 458 ( 16357)       |  |               |  |  |       |
| TOTAL                           | 358 ( 12746)      |                  |                   |                | 645 ( 23036)       |  |               |  |  |       |
| <b>NITRATE-NITRATE NITROGEN</b> |                   |                  |                   |                |                    |  |               |  |  |       |
| LAKE MURPHY                     | 2641 ( 94321)     | 3033 ( 10893)    | 2019 ( 72107)     | 235 ( 8393)    | 2641 ( 94321)      |  |               |  |  |       |
| PO POINT                        | 449 ( 16321)      | 164 ( 5857)      | 277 ( 9893)       | 82 ( 2929)     | 6936 ( 247714)     |  |               |  |  |       |
| POINT                           | 671 ( 23944)      | 3997 ( 142750)   | 2296 ( 82000)     | 317 ( 11322)   | 1194 ( 42643)      |  |               |  |  |       |
| TOTAL                           | 4161 ( 148606)    |                  |                   |                | 10771 ( 384678)    |  |               |  |  |       |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                   |                |                    |  |               |  |  |       |
| LAKE MURPHY                     | 392 ( 14000)      | 93 ( 3321)       | 209 ( 7464)       | 30 ( 1071)     | 392 ( 14000)       |  |               |  |  |       |
| PO POINT                        | 81 ( 1464)        | 215 ( 7679)      | 390 ( 13929)      | 69 ( 2464)     | 373 ( 13320)       |  |               |  |  |       |
| POINT                           | 760 ( 27143)      | 304 ( 11000)     | 599 ( 21393)      | 99 ( 3535)     | 1434 ( 51215)      |  |               |  |  |       |
| TOTAL                           | 1193 ( 42607)     |                  |                   |                | 2199 ( 78535)      |  |               |  |  |       |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                   |                |                    |  |               |  |  |       |
| LAKE MURPHY                     | 3276 ( 117000)    | 507 ( 18107)     | 574 ( 20500)      | 276 ( 9857)    | 3276 ( 117000)     |  |               |  |  |       |
| PO POINT                        | 202 ( 7214)       | 62 ( 2214)       | 146 ( 5214)       | 28 ( 1000)     | 1559 ( 55678)      |  |               |  |  |       |
| POINT                           | 237 ( 8464)       | 569 ( 20321)     | 720 ( 25714)      | 304 ( 10857)   | 473 ( 16892)       |  |               |  |  |       |
| TOTAL                           | 3715 ( 132678)    |                  |                   |                | 5308 ( 189570)     |  |               |  |  |       |
| <b>CHLORIDE</b>                 |                   |                  |                   |                |                    |  |               |  |  |       |
| LAKE MURPHY                     | 81995 ( 2928393)  | 33977 ( 1213464) | 95223 ( 3400821)  | 4666 ( 166643) | 81995 ( 2928393)   |  |               |  |  |       |
| PO POINT                        | 9062 ( 323643)    | 4528 ( 161714)   | 9225 ( 329464)    | 1978 ( 70643)  | 142928 ( 5104571)  |  |               |  |  |       |
| POINT                           | 151320 ( 5404246) | 38505 ( 1375178) | 104448 ( 3730285) | 6648 ( 237246) | 167051 ( 5966107)  |  |               |  |  |       |
| TOTAL                           | 242377 ( 8656322) |                  |                   |                | 391974 ( 13999071) |  |               |  |  |       |
| <b>SILICA</b>                   |                   |                  |                   |                |                    |  |               |  |  |       |
| LAKE MURPHY                     | 11966 ( 427357)   | 7068 ( 252429)   | 5018 ( 179214)    | 1392 ( 49714)  | 11966 ( 427357)    |  |               |  |  |       |
| PO POINT                        | 1334 ( 47421)     | 141 ( 5036)      | 277 ( 9893)       | 61 ( 2179)     | 14417 ( 529176)    |  |               |  |  |       |
| POINT                           | 509 ( 18174)      | 7204 ( 257465)   | 5295 ( 189107)    | 1453 ( 51893)  | 988 ( 35287)       |  |               |  |  |       |
| TOTAL                           | 13814 ( 483351)   |                  |                   |                | 27771 ( 991822)    |  |               |  |  |       |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH, 1970  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                   |                 |                    |
| LAKE HURON                      | 210 ( 6774)       | 375 ( 12097)     | 293 ( 9452)       | 92 ( 2968)      | 210 ( 6774)        |
| DOWN POINT                      | 225 ( 7254)       | 147 ( 4742)      | 240 ( 9032)       | 54 ( 1742)      | 945 ( 31775)       |
| PULLEY                          | 575 ( 18548)      | 522 ( 16639)     | 573 ( 18484)      | 146 ( 4710)     | 1056 ( 34064)      |
| TOTAL                           | 1010 ( 32583)     |                  |                   |                 | 2251 ( 72613)      |
| <b>URIC ACID PHOSPHORUS</b>     |                   |                  |                   |                 |                    |
| LAKE HURON                      | 95 ( 3065)        | 72 ( 2323)       | 45 ( 1452)        | 10 ( 323)       | 95 ( 3065)         |
| DOWN POINT                      | 65 ( 2097)        | 74 ( 2387)       | 124 ( 4000)       | 26 ( 839)       | 192 ( 6195)        |
| PULLEY                          | 268 ( 9290)       | 146 ( 4710)      | 169 ( 5452)       | 36 ( 1162)      | 512 ( 16516)       |
| TOTAL                           | 428 ( 14452)      |                  |                   |                 | 799 ( 25776)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                  |                   |                 |                    |
| LAKE HURON                      | 3126 ( 100839)    | 5240 ( 169032)   | 2589 ( 83516)     | 675 ( 21774)    | 3126 ( 100839)     |
| DOWN POINT                      | 2663 ( 85903)     | 197 ( 6355)      | 307 ( 9903)       | 91 ( 2935)      | 1167 ( 360225)     |
| PULLEY                          | 743 ( 23968)      | 5437 ( 175367)   | 2496 ( 93419)     | 766 ( 24704)    | 1338 ( 43161)      |
| TOTAL                           | 6532 ( 210710)    |                  |                   |                 | 15631 ( 504225)    |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                   |                 |                    |
| LAKE HURON                      | 464 ( 14968)      | 171 ( 5516)      | 243 ( 7859)       | 37 ( 1194)      | 464 ( 14968)       |
| DOWN POINT                      | 147 ( 4742)       | 251 ( 8097)      | 429 ( 13830)      | 99 ( 3194)      | 598 ( 19291)       |
| PULLEY                          | 650 ( 21419)      | 422 ( 13613)     | 672 ( 21670)      | 136 ( 4384)     | 1629 ( 52549)      |
| TOTAL                           | 1461 ( 47129)     |                  |                   |                 | 2691 ( 86600)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                   |                 |                    |
| LAKE HURON                      | 3877 ( 125065)    | 743 ( 23968)     | 743 ( 23968)      | 336 ( 10903)    | 3877 ( 125065)     |
| DOWN POINT                      | 671 ( 21645)      | 72 ( 2323)       | 161 ( 5194)       | 31 ( 1000)      | 2495 ( 80884)      |
| PULLEY                          | 262 ( 8452)       | 815 ( 26291)     | 904 ( 29162)      | 369 ( 11903)    | 526 ( 16969)       |
| TOTAL                           | 4810 ( 155162)    |                  |                   |                 | 6898 ( 222510)     |
| <b>CHLORIDE</b>                 |                   |                  |                   |                 |                    |
| LAKE HURON                      | 97058 ( 3130903)  | 47583 ( 1534935) | 113082 ( 3687406) | 8661 ( 279387)  | 97058 ( 3130903)   |
| DOWN POINT                      | 38630 ( 1252591)  | 5013 ( 161710)   | 10214 ( 329484)   | 2189 ( 70613)   | 208156 ( 6714709)  |
| PULLEY                          | 170636 ( 5563367) | 52596 ( 1696645) | 123596 ( 3977290) | 10850 ( 350000) | 148052 ( 4666194)  |
| TOTAL                           | 306524 ( 9887871) |                  |                   |                 | 493266 ( 15911006) |
| <b>SILICA</b>                   |                   |                  |                   |                 |                    |
| LAKE HURON                      | 14164 ( 456903)   | 9541 ( 307774)   | 6001 ( 193581)    | 2163 ( 69774)   | 14164 ( 456903)    |
| DOWN POINT                      | 4060 ( 130968)    | 157 ( 5065)      | 307 ( 9903)       | 88 ( 2194)      | 21765 ( 702097)    |
| PULLEY                          | 563 ( 18161)      | 9698 ( 312859)   | 6308 ( 203444)    | 2231 ( 71948)   | 1095 ( 35323)      |
| TOTAL                           | 18787 ( 608032)   |                  |                   |                 | 37024 ( 1194323)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1970  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 199 ( 6433)        | 667 ( 22233)     | 276 ( 9200)       | 294 ( 9800)     | 199 ( 6433)        |
| ADA POINT                       | 453 ( 15100)       | 144 ( 4800)      | 254 ( 8433)       | 51 ( 1700)      | 1430 ( 54333)      |
| POINT                           | 545 ( 18833)       | 144 ( 4800)      | 535 ( 17833)      | 345 ( 11500)    | 1019 ( 33966)      |
| TOTAL                           | 1157 ( 34566)      | 811 ( 27033)     | 535 ( 17833)      | 345 ( 11500)    | 2848 ( 94932)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                   |                 |                    |
| LAKE HURON                      | 90 ( 3000)         | 133 ( 4433)      | 96 ( 1533)        | 37 ( 1233)      | 90 ( 3000)         |
| ADA POINT                       | 89 ( 2967)         | 71 ( 2367)       | 117 ( 3900)       | 26 ( 867)       | 305 ( 10166)       |
| POINT                           | 242 ( 9400)        | 204 ( 6800)      | 163 ( 5433)       | 63 ( 2100)      | 496 ( 16344)       |
| TOTAL                           | 401 ( 15367)       | 204 ( 6800)      | 163 ( 5433)       | 63 ( 2100)      | 891 ( 29700)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE HURON                      | 2950 ( 94333)      | 6850 ( 228333)   | 2796 ( 93200)     | 1619 ( 53967)   | 2950 ( 94333)      |
| ADA POINT                       | 3669 ( 124967)     | 191 ( 6367)      | 297 ( 9900)       | 87 ( 2900)      | 15134 ( 504467)    |
| POINT                           | 720 ( 24000)       | 7041 ( 234700)   | 3093 ( 103100)    | 1706 ( 56867)   | 1295 ( 43167)      |
| TOTAL                           | 7539 ( 251300)     | 7041 ( 234700)   | 3093 ( 103100)    | 1706 ( 56867)   | 19379 ( 645467)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 434 ( 14400)       | 367 ( 12233)     | 174 ( 5933)       | 126 ( 4200)     | 434 ( 14400)       |
| ADA POINT                       | 222 ( 7400)        | 243 ( 8100)      | 399 ( 13300)      | 104 ( 3467)     | 893 ( 29766)       |
| POINT                           | 828 ( 27600)       | 610 ( 20333)     | 577 ( 19233)      | 230 ( 7667)     | 1574 ( 52467)      |
| TOTAL                           | 1488 ( 49600)      | 610 ( 20333)     | 577 ( 19233)      | 230 ( 7667)     | 2905 ( 96833)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 3659 ( 121967)     | 1317 ( 43900)    | 644 ( 21467)      | 842 ( 28067)    | 3659 ( 121967)     |
| ADA POINT                       | 1036 ( 34533)      | 71 ( 2367)       | 156 ( 5200)       | 30 ( 1000)      | 3839 ( 127967)     |
| POINT                           | 254 ( 8467)        | 1388 ( 46267)    | 800 ( 26667)      | 872 ( 29067)    | 511 ( 17034)       |
| TOTAL                           | 4049 ( 164967)     | 1388 ( 46267)    | 800 ( 26667)      | 872 ( 29067)    | 8009 ( 268968)     |
| <b>CHLORINE</b>                 |                    |                  |                   |                 |                    |
| LAKE HURON                      | 91590 ( 3053000)   | 61501 ( 2050033) | 106033 ( 3534433) | 22403 ( 746767) | 91590 ( 3053000)   |
| ADA POINT                       | 54431 ( 1821033)   | 4451 ( 161700)   | 9884 ( 329467)    | 2119 ( 70633)   | 244568 ( 8152266)  |
| POINT                           | 165132 ( 5504400)  | 66352 ( 2211733) | 115917 ( 3863900) | 24522 ( 817400) | 181986 ( 6066200)  |
| TOTAL                           | 311353 ( 10374433) | 66352 ( 2211733) | 115917 ( 3863900) | 24522 ( 817400) | 518144 ( 17271466) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE HURON                      | 13366 ( 445533)    | 12683 ( 422767)  | 5904 ( 19600)     | 4557 ( 151900)  | 13366 ( 445533)    |
| ADA POINT                       | 5127 ( 170900)     | 152 ( 5067)      | 297 ( 9900)       | 66 ( 2200)      | 28271 ( 942367)    |
| POINT                           | 545 ( 18167)       | 12835 ( 427834)  | 6201 ( 206700)    | 4623 ( 154100)  | 1060 ( 35334)      |
| TOTAL                           | 19038 ( 634600)    | 12835 ( 427834)  | 6201 ( 206700)    | 4623 ( 154100)  | 42697 ( 1423234)   |

# WASTEL LOADINGS IN MEGALITONS PER MONTH FOR MAY, 1970 (AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLM BASIN | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|------------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                  |                |                    |
| LAKE MUKUNGO                    | 213 ( 6871)       | 770 ( 24839)     | 93 ( 3000)       | 64 ( 2065)     | 213 ( 6871)        |
| LAKE MUKUNGO                    | 90 ( 2903)        | 147 ( 4742)      | 250 ( 8065)      | 54 ( 1742)     | 1017 ( 32807)      |
| LAKE MUKUNGO                    | 573 ( 18484)      | 917 ( 29581)     | 343 ( 11065)     | 116 ( 3807)    | 1024 ( 33033)      |
| TOTAL                           | 876 ( 28258)      |                  |                  |                | 2254 ( 72711)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                  |                  |                |                    |
| LAKE MUKUNGO                    | 56 ( 3097)        | 57 ( 1839)       | 13 ( 419)        | 10 ( 323)      | 96 ( 3097)         |
| LAKE MUKUNGO                    | 25 ( 806)         | 74 ( 2387)       | 115 ( 3710)      | 26 ( 839)      | 105 ( 3387)        |
| LAKE MUKUNGO                    | 248 ( 9290)       | 131 ( 4220)      | 128 ( 4129)      | 36 ( 1162)     | 503 ( 16226)       |
| TOTAL                           | 409 ( 13193)      |                  |                  |                | 704 ( 22710)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                  |                  |                |                    |
| LAKE MUKUNGO                    | 3157 ( 101839)    | 5255 ( 169516)   | 1555 ( 50161)    | 529 ( 17068)   | 3157 ( 101839)     |
| LAKE MUKUNGO                    | 1033 ( 33323)     | 194 ( 6258)      | 307 ( 9903)      | 91 ( 2935)     | 4372 ( 270065)     |
| LAKE MUKUNGO                    | 743 ( 23966)      | 5444 ( 175774)   | 1862 ( 60064)    | 620 ( 20000)   | 1335 ( 43064)      |
| TOTAL                           | 4933 ( 159130)    |                  |                  |                | 12664 ( 414968)    |
| <b>AMMONIA-NITROGEN</b>         |                   |                  |                  |                |                    |
| LAKE MUKUNGO                    | 409 ( 15129)      | 24 ( 774)        | 45 ( 1452)       | 17 ( 548)      | 469 ( 15129)       |
| LAKE MUKUNGO                    | 53 ( 1710)        | 237 ( 7645)      | 386 ( 12452)     | 94 ( 3032)     | 139 ( 4484)        |
| LAKE MUKUNGO                    | 846 ( 27355)      | 261 ( 8419)      | 431 ( 13404)     | 111 ( 3580)    | 1565 ( 50484)      |
| TOTAL                           | 1370 ( 44198)     |                  |                  |                | 2173 ( 70097)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                  |                |                    |
| LAKE MUKUNGO                    | 3916 ( 126323)    | 493 ( 15903)     | 257 ( 8290)      | 259 ( 8355)    | 3916 ( 126323)     |
| LAKE MUKUNGO                    | 302 ( 9742)       | 72 ( 2323)       | 161 ( 5194)      | 31 ( 1000)     | 1311 ( 42290)      |
| LAKE MUKUNGO                    | 262 ( 8452)       | 565 ( 18226)     | 416 ( 13484)     | 290 ( 9355)    | 526 ( 16969)       |
| TOTAL                           | 4480 ( 144517)    |                  |                  |                | 5753 ( 185582)     |
| <b>CHLORIDE</b>                 |                   |                  |                  |                |                    |
| LAKE MUKUNGO                    | 48023 ( 5162032)  | 38018 ( 1252194) | 88828 ( 2865419) | 7334 ( 236581) | 98023 ( 3162032)   |
| LAKE MUKUNGO                    | 14268 ( 421542)   | 5013 ( 161710)   | 10214 ( 329484)  | 2189 ( 70613)  | 154248 ( 4975742)  |
| LAKE MUKUNGO                    | 170636 ( 5504387) | 43831 ( 1413904) | 99042 ( 3144903) | 9523 ( 307194) | 188052 ( 6066194)  |
| TOTAL                           | 227927 ( 4287467) |                  |                  |                | 440325 ( 14203968) |
| <b>SILICA</b>                   |                   |                  |                  |                |                    |
| LAKE MUKUNGO                    | 14305 ( 461452)   | 11065 ( 354935)  | 3044 ( 99935)    | 1568 ( 50581)  | 14305 ( 461452)    |
| LAKE MUKUNGO                    | 1803 ( 58161)     | 157 ( 5065)      | 307 ( 9903)      | 68 ( 2194)     | 17534 ( 565612)    |
| LAKE MUKUNGO                    | 503 ( 16161)      | 11222 ( 362000)  | 5405 ( 109030)   | 1636 ( 52175)  | 1095 ( 35323)      |
| TOTAL                           | 16671 ( 537774)   |                  |                  |                | 32734 ( 1062387)   |

# BASIN LOADINGS IN METRIC TONS PER MONTH FOR JUNE , 1970 (AVE DAILY LOADS IN KG/DAY)

|                                 | DEI/SI. CLW BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|------------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                   |
| LAKE MURUM                      | 210 ( 7000)       | 73 ( 2433)      | 48 ( 1600)       | 17 ( 567)      | 210 ( 7000)       |
| PO. POINT                       | 42 ( 1400)        | 139 ( 4633)     | 255 ( 8500)      | 50 ( 1667)     | 190 ( 6000)       |
| TOTAL                           | 553 ( 18433)      | 212 ( 7066)     | 303 ( 10100)     | 67 ( 2234)     | 997 ( 33233)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                   |
| LAKE MURUM                      | 95 ( 3167)        | 3 ( 100)        | 7 ( 233)         | 3 ( 100)       | 95 ( 3167)        |
| PO. POINT                       | 13 ( 433)         | 51 ( 1700)      | 115 ( 3833)      | 25 ( 833)      | 26 ( 866)         |
| TOTAL                           | 277 ( 9233)       | 54 ( 1800)      | 122 ( 4066)      | 28 ( 933)      | 468 ( 15599)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                   |
| LAKE MURUM                      | 3115 ( 103833)    | 1106 ( 36867)   | 1150 ( 38333)    | 76 ( 2533)     | 3115 ( 103833)    |
| PO. POINT                       | 321 ( 10700)      | 179 ( 5967)     | 297 ( 9900)      | 87 ( 2900)     | 2653 ( 88433)     |
| TOTAL                           | 720 ( 24000)      | 1285 ( 42834)   | 1447 ( 48233)    | 163 ( 5433)    | 1283 ( 42767)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                   |
| LAKE MURUM                      | 463 ( 15433)      | 0 ( 0)          | 17 ( 567)        | 1 ( 33)        | 463 ( 15433)      |
| PO. POINT                       | 23 ( 767)         | 168 ( 5600)     | 382 ( 12733)     | 73 ( 2433)     | 41 ( 1367)        |
| TOTAL                           | 487 ( 16200)      | 168 ( 5600)     | 399 ( 13300)     | 74 ( 2466)     | 1440 ( 47999)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                   |
| LAKE MURUM                      | 3864 ( 128800)    | 92 ( 3067)      | 223 ( 7433)      | 144 ( 4800)    | 3864 ( 128800)    |
| PO. POINT                       | 152 ( 5067)       | 67 ( 2233)      | 156 ( 5200)      | 30 ( 1000)     | 611 ( 20367)      |
| TOTAL                           | 4016 ( 133867)    | 159 ( 5300)     | 379 ( 12633)     | 174 ( 5800)    | 507 ( 16900)      |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                   |
| LAKE MURUM                      | 96731 ( 3224367)  | 14708 ( 490267) | 69270 ( 2309000) | 3191 ( 104700) | 96731 ( 3224367)  |
| PO. POINT                       | 11235 ( 374500)   | 4851 ( 161700)  | 9884 ( 329467)   | 2119 ( 70633)  | 98354 ( 3278467)  |
| TOTAL                           | 165132 ( 5504000) | 19559 ( 651967) | 79154 ( 2638467) | 5280 ( 175333) | 181986 ( 6066200) |
| <b>SILICA</b>                   |                   |                 |                  |                |                   |
| LAKE MURUM                      | 14116 ( 470533)   | 2721 ( 90700)   | 2389 ( 79433)    | 585 ( 19500)   | 14116 ( 470533)   |
| PO. POINT                       | 260 ( 8667)       | 152 ( 5067)     | 297 ( 9900)      | 86 ( 2800)     | 655 ( 218500)     |
| TOTAL                           | 15521 ( 517367)   | 2873 ( 95767)   | 2686 ( 89533)    | 651 ( 21700)   | 1060 ( 35334)     |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JULY , 1970  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 221 ( 7129)       | 78 ( 2516)      | 12 ( 387)        | 22 ( 710)      | 221 ( 7129)        |
| SW. POINT                       | 43 ( 1347)        | 140 ( 4516)     | 246 ( 7935)      | 54 ( 1742)     | 155 ( 5000)        |
| POINT                           | 568 ( 18323)      | 218 ( 7032)     | 258 ( 8322)      | 76 ( 2452)     | 1008 ( 32516)      |
| TOTAL                           | 832 ( 26839)      |                 |                  |                | 1384 ( 44645)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE HURON                      | 100 ( 3226)       | 5 ( 161)        | 4 ( 129)         | 4 ( 129)       | 100 ( 3226)        |
| SW. POINT                       | 12 ( 347)         | 53 ( 1710)      | 105 ( 3347)      | 26 ( 839)      | 25 ( 806)          |
| POINT                           | 245 ( 9194)       | 58 ( 1871)      | 109 ( 3516)      | 30 ( 968)      | 469 ( 15130)       |
| TOTAL                           | 347 ( 12807)      |                 |                  |                | 594 ( 19162)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE HURON                      | 3201 ( 105839)    | 1223 ( 39452)   | 535 ( 17258)     | 179 ( 5774)    | 3281 ( 105839)     |
| SW. POINT                       | 250 ( 8065)       | 182 ( 5871)     | 307 ( 9903)      | 91 ( 2935)     | 2107 ( 70549)      |
| POINT                           | 743 ( 23968)      | 1405 ( 45323)   | 892 ( 27161)     | 270 ( 8709)    | 1323 ( 42677)      |
| TOTAL                           | 4274 ( 137872)    |                 |                  |                | 6791 ( 219065)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 447 ( 15710)      | 2 ( 65)         | 8 ( 258)         | 3 ( 97)        | 487 ( 15710)       |
| SW. POINT                       | 20 ( 645)         | 168 ( 5419)     | 363 ( 11710)     | 81 ( 2613)     | 33 ( 1065)         |
| POINT                           | 842 ( 27161)      | 170 ( 5484)     | 371 ( 11968)     | 84 ( 2710)     | 1454 ( 48903)      |
| TOTAL                           | 1349 ( 43516)     |                 |                  |                | 1974 ( 63678)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 4070 ( 131290)    | 91 ( 2935)      | 85 ( 2742)       | 152 ( 4903)    | 4070 ( 131290)     |
| SW. POINT                       | 124 ( 4000)       | 69 ( 2226)      | 161 ( 5194)      | 31 ( 1000)     | 452 ( 14560)       |
| POINT                           | 262 ( 8452)       | 160 ( 5161)     | 246 ( 7936)      | 183 ( 5903)    | 523 ( 16872)       |
| TOTAL                           | 4456 ( 143742)    |                 |                  |                | 5045 ( 162742)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE HURON                      | 101886 ( 3286645) | 14552 ( 466194) | 31603 ( 1019452) | 3793 ( 122355) | 101886 ( 3286645)  |
| SW. POINT                       | 7646 ( 246605)    | 5013 ( 161710)  | 10214 ( 329484)  | 2189 ( 70613)  | 57494 ( 1854646)   |
| POINT                           | 166166 ( 5360194) | 19465 ( 627904) | 41417 ( 1346936) | 5962 ( 192966) | 183562 ( 5922001)  |
| TOTAL                           | 275698 ( 8653454) |                 |                  |                | 342462 ( 11063292) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE HURON                      | 14849 ( 479645)   | 2830 ( 91290)   | 1115 ( 35968)    | 771 ( 24871)   | 14849 ( 479645)    |
| SW. POINT                       | 642 ( 22000)      | 157 ( 5005)     | 307 ( 9903)      | 68 ( 2194)     | 5398 ( 174129)     |
| POINT                           | 543 ( 18161)      | 2987 ( 96355)   | 1422 ( 45871)    | 834 ( 27065)   | 1095 ( 35423)      |
| TOTAL                           | 16114 ( 514406)   |                 |                  |                | 21362 ( 689077)    |

WASIN LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1970  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DE/ST. CLM BASIN  | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|------------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 223 ( 7190)       | 1 ( 32)         | 4 ( 129)         | 33 ( 1065)     | 223 ( 7190)       |
| POCAHONTAS                      | 51 ( 1600)        | 121 ( 3903)     | 230 ( 7419)      | 53 ( 1710)     | 69 ( 2226)        |
| TOTAL                           | 505 ( 16226)      | 122 ( 3935)     | 234 ( 7548)      | 86 ( 2775)     | 969 ( 31258)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 101 ( 3254)       | 3 ( 97)         | 3 ( 97)          | 0 ( 129)       | 101 ( 3258)       |
| POCAHONTAS                      | 283 ( 9129)       | 39 ( 1258)      | 101 ( 3258)      | 26 ( 834)      | 449 ( 14884)      |
| TOTAL                           | 391 ( 12613)      | 42 ( 1355)      | 104 ( 3355)      | 30 ( 968)      | 567 ( 18291)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 3312 ( 106839)    | 277 ( 8935)     | 226 ( 7290)      | 102 ( 3290)    | 3312 ( 106839)    |
| POCAHONTAS                      | 87 ( 2806)        | 176 ( 5677)     | 303 ( 9774)      | 91 ( 2935)     | 692 ( 22321)      |
| TOTAL                           | 4136 ( 133419)    | 453 ( 14612)    | 529 ( 17064)     | 193 ( 6225)    | 5311 ( 171320)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 492 ( 15871)      | 1 ( 32)         | 6 ( 194)         | 7 ( 226)       | 492 ( 15871)      |
| POCAHONTAS                      | 16 ( 516)         | 135 ( 4355)     | 343 ( 11065)     | 76 ( 2452)     | 30 ( 968)         |
| TOTAL                           | 836 ( 26987)      | 136 ( 4387)     | 349 ( 11259)     | 83 ( 2678)     | 1390 ( 44840)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 4109 ( 132548)    | 23 ( 742)       | 34 ( 1226)       | 146 ( 4710)    | 4109 ( 132548)    |
| POCAHONTAS                      | 75 ( 2419)        | 64 ( 2065)      | 152 ( 4903)      | 31 ( 1000)     | 282 ( 9047)       |
| TOTAL                           | 4440 ( 143350)    | 87 ( 2807)      | 190 ( 6129)      | 177 ( 5710)    | 507 ( 16355)      |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 102852 ( 3317806) | 5360 ( 172903)  | 21540 ( 694839)  | 2978 ( 94065)  | 102852 ( 3317806) |
| POCAHONTAS                      | 2673 ( 86226)     | 4979 ( 160613)  | 10152 ( 327484)  | 2189 ( 70613)  | 32551 ( 1050033)  |
| TOTAL                           | 165532 ( 5339742) | 10339 ( 333516) | 31692 ( 1022323) | 5167 ( 166678) | 182452 ( 5898452) |
| <b>SILICA</b>                   |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 15009 ( 484161)   | 910 ( 29355)    | 539 ( 17387)     | 706 ( 22774)   | 15009 ( 484161)   |
| POCAHONTAS                      | 423 ( 13695)      | 157 ( 5065)     | 307 ( 9403)      | 68 ( 2194)     | 2578 ( 83161)     |
| TOTAL                           | 563 ( 18161)      | 1067 ( 34420)   | 846 ( 27290)     | 774 ( 24968)   | 1095 ( 35323)     |
|                                 | 15995 ( 515967)   |                 |                  |                | 18682 ( 602645)   |

HASIN: LOADINGS IN PLETRIC TONS PER MONTH FOR SEPTEMBER, 1970  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR HASIN | WESTERN BASIN  | CENTRAL HASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                  |                |                    |
| LAKE MURKIN                     | 215 ( 7167)       |                |                  |                | 215 ( 7167)        |
| LAKE ERIE                       | 29 ( 967)         | 1 ( 33)        | 18 ( 600)        | 38 ( 1267)     | 86 ( 2867)         |
| LAKE ST. CLAIR                  | 546 ( 18267)      | 70 ( 2333)     | 226 ( 7533)      | 51 ( 1700)     | 895 ( 29833)       |
| TOTAL                           | 792 ( 26401)      | 71 ( 2366)     | 244 ( 8133)      | 89 ( 2967)     | 1196 ( 39867)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                |                  |                |                    |
| LAKE MURKIN                     | 97 ( 3233)        |                |                  |                | 97 ( 3233)         |
| LAKE ERIE                       | 7 ( 233)          | 2 ( 67)        | 3 ( 100)         | 4 ( 133)       | 16 ( 533)          |
| LAKE ST. CLAIR                  | 275 ( 9167)       | 34 ( 1133)     | 100 ( 3333)      | 25 ( 833)      | 434 ( 14466)       |
| TOTAL                           | 379 ( 12633)      | 36 ( 1200)     | 103 ( 3433)      | 29 ( 966)      | 547 ( 18232)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                |                  |                |                    |
| LAKE MURKIN                     | 3190 ( 106333)    |                |                  |                | 3190 ( 106333)     |
| LAKE ERIE                       | 92 ( 3067)        | 89 ( 2967)     | 236 ( 7467)      | 251 ( 8367)    | 648 ( 22266)       |
| LAKE ST. CLAIR                  | 714 ( 23467)      | 164 ( 5467)    | 291 ( 9700)      | 87 ( 2900)     | 1261 ( 42034)      |
| TOTAL                           | 4001 ( 133567)    | 253 ( 8434)    | 527 ( 17567)     | 338 ( 11267)   | 5119 ( 170633)     |
| <b>AMMONIA-NITROGEN</b>         |                   |                |                  |                |                    |
| LAKE MURKIN                     | 474 ( 15800)      |                |                  |                | 474 ( 15800)       |
| LAKE ERIE                       | 15 ( 500)         | 1 ( 33)        | 34 ( 1133)       | 22 ( 733)      | 72 ( 2399)         |
| LAKE ST. CLAIR                  | 410 ( 27000)      | 124 ( 4133)    | 343 ( 11433)     | 77 ( 2567)     | 1354 ( 45133)      |
| TOTAL                           | 1294 ( 43300)     | 125 ( 4166)    | 377 ( 12566)     | 99 ( 3300)     | 1900 ( 63332)      |
| <b>ORGANIC-NITROGEN</b>         |                   |                |                  |                |                    |
| LAKE MURKIN                     | 3958 ( 131933)    |                |                  |                | 3958 ( 131933)     |
| LAKE ERIE                       | 77 ( 2567)        | 4 ( 300)       | 77 ( 2567)       | 204 ( 6967)    | 372 ( 12401)       |
| LAKE ST. CLAIR                  | 254 ( 8467)       | 54 ( 1800)     | 155 ( 5167)      | 30 ( 1000)     | 493 ( 16434)       |
| TOTAL                           | 4289 ( 142467)    | 63 ( 2100)     | 232 ( 7734)      | 239 ( 7967)    | 4823 ( 160766)     |
| <b>COLEFIDE</b>                 |                   |                |                  |                |                    |
| LAKE MURKIN                     | 99067 ( 3302233)  |                |                  |                | 99067 ( 3302233)   |
| LAKE ERIE                       | 3616 ( 120533)    | 3778 ( 125933) | 43163 ( 1438767) | 4267 ( 142233) | 54824 ( 1827466)   |
| LAKE ST. CLAIR                  | 160741 ( 5359367) | 4818 ( 160600) | 4854 ( 328633)   | 2119 ( 70633)  | 177577 ( 5919233)  |
| TOTAL                           | 263424 ( 8722133) | 8596 ( 286533) | 53022 ( 1767400) | 6386 ( 212866) | 331468 ( 11048432) |
| <b>SILICA</b>                   |                   |                |                  |                |                    |
| LAKE MURKIN                     | 14457 ( 481900)   |                |                  |                | 14457 ( 481900)    |
| LAKE ERIE                       | 452 ( 15067)      | 387 ( 12400)   | 775 ( 25833)     | 1084 ( 36133)  | 2698 ( 89933)      |
| LAKE ST. CLAIR                  | 545 ( 18167)      | 150 ( 5000)    | 297 ( 9900)      | 66 ( 2200)     | 1058 ( 35267)      |
| TOTAL                           | 15454 ( 515130)   | 537 ( 17900)   | 1072 ( 35733)    | 1150 ( 38333)  | 18213 ( 607100)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1970  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLK BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|------------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 210 ( 7065)       | 2 ( 65)         | 49 ( 1581)       | 43 ( 1387)     | 219 ( 7065)       |
| COA POINT                       | 37 ( 1190)        | 86 ( 2774)      | 249 ( 8032)      | 54 ( 1742)     | 131 ( 4227)       |
| TOTAL                           | 567 ( 18291)      | 88 ( 2839)      | 298 ( 9613)      | 97 ( 3129)     | 956 ( 30830)      |
| <b>OMPHO PHOSPHORUS</b>         |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 99 ( 3194)        | 3 ( 97)         | 6 ( 194)         | 4 ( 129)       | 99 ( 3194)        |
| COA POINT                       | 12 ( 367)         | 39 ( 1258)      | 110 ( 3548)      | 26 ( 834)      | 25 ( 807)         |
| TOTAL                           | 288 ( 9161)       | 42 ( 1355)      | 116 ( 3742)      | 30 ( 968)      | 459 ( 14806)      |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 3250 ( 104839)    | 320 ( 10323)    | 449 ( 14484)     | 309 ( 9968)    | 3250 ( 104839)    |
| COA POINT                       | 180 ( 5466)       | 177 ( 5710)     | 307 ( 9903)      | 91 ( 2935)     | 1258 ( 40581)     |
| TOTAL                           | 4173 ( 134613)    | 497 ( 16033)    | 756 ( 24387)     | 400 ( 12903)   | 1318 ( 42516)     |
| <b>AMMONIA-NITROGEN</b>         |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 443 ( 15581)      | 4 ( 129)        | 85 ( 2677)       | 17 ( 548)      | 443 ( 15581)      |
| COA POINT                       | 18 ( 581)         | 148 ( 4774)     | 377 ( 12161)     | 81 ( 2613)     | 122 ( 3935)       |
| TOTAL                           | 841 ( 27129)      | 152 ( 4903)     | 460 ( 14838)     | 98 ( 3161)     | 1447 ( 46677)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 4032 ( 130065)    | 29 ( 935)       | 199 ( 6097)      | 222 ( 7161)    | 4032 ( 130065)    |
| COA POINT                       | 109 ( 3516)       | 67 ( 2161)      | 161 ( 5194)      | 31 ( 1000)     | 549 ( 17709)      |
| TOTAL                           | 262 ( 8452)       | 96 ( 3096)      | 350 ( 11291)     | 253 ( 8161)    | 521 ( 16807)      |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 100921 ( 3255516) | 9663 ( 311710)  | 69589 ( 2248806) | 5088 ( 164129) | 100921 ( 3255516) |
| COA POINT                       | 5819 ( 187710)    | 4976 ( 160516)  | 10214 ( 329484)  | 2189 ( 70613)  | 90159 ( 290335)   |
| TOTAL                           | 166085 ( 5357581) | 14639 ( 472226) | 79803 ( 2574290) | 7277 ( 234742) | 183464 ( 5918194) |
| <b>SILICA</b>                   |                   |                 |                  |                |                   |
| LAKE MURDOCK                    | 14727 ( 475065)   | 939 ( 30290)    | 1570 ( 50645)    | 1290 ( 41613)  | 14727 ( 475065)   |
| COA POINT                       | 603 ( 19452)      | 156 ( 5032)     | 307 ( 9903)      | 68 ( 2194)     | 4402 ( 142000)    |
| TOTAL                           | 15893 ( 512678)   | 1095 ( 35322)   | 1877 ( 60548)    | 1358 ( 43807)  | 1094 ( 35290)     |
|                                 |                   |                 |                  |                | 20223 ( 652355)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1970  
(AVE DAILY LOADS IN KG/DAY)

|                                 | PET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN   | TOTAL             |
|---------------------------------|-------------------|-----------------|-------------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                   |                 |                   |
| LAKE MURDOCK                    | 212 ( 7067)       | 14 ( 600)       | 142 ( 4733)       | 109 ( 3633)     | 212 ( 7067)       |
| GOV. POINT                      | 87 ( 2900)        | 135 ( 4500)     | 258 ( 8600)       | 51 ( 1700)      | 356 ( 11666)      |
| TOTAL                           | 550 ( 18333)      | 153 ( 5100)     | 400 ( 13333)      | 160 ( 5333)     | 994 ( 33133)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                   |                 |                   |
| LAKE MURDOCK                    | 95 ( 3167)        | 6 ( 200)        | 22 ( 733)         | 14 ( 467)       | 95 ( 3167)        |
| GOV. POINT                      | 27 ( 9233)        | 46 ( 1533)      | 112 ( 3733)       | 26 ( 867)       | 64 ( 2133)        |
| TOTAL                           | 394 ( 13133)      | 52 ( 1733)      | 134 ( 4466)       | 40 ( 1334)      | 461 ( 15366)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                   |                 |                   |
| LAKE MURDOCK                    | 3145 ( 104833)    | 959 ( 31967)    | 1186 ( 39533)     | 742 ( 24733)    | 3145 ( 104833)    |
| GOV. POINT                      | 927 ( 30900)      | 184 ( 6133)     | 297 ( 9900)       | 87 ( 2900)      | 3814 ( 127133)    |
| TOTAL                           | 4792 ( 159733)    | 1143 ( 38100)   | 1483 ( 49433)     | 829 ( 27633)    | 8247 ( 274699)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                   |                 |                   |
| LAKE MURDOCK                    | 467 ( 15567)      | 17 ( 567)       | 215 ( 7167)       | 63 ( 2100)      | 467 ( 15567)      |
| GOV. POINT                      | 41 ( 1367)        | 159 ( 5300)     | 394 ( 13133)      | 98 ( 3267)      | 336 ( 11201)      |
| TOTAL                           | 817 ( 27233)      | 176 ( 5867)     | 609 ( 20300)      | 161 ( 5367)     | 1468 ( 48933)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                   |                 |                   |
| LAKE MURDOCK                    | 3902 ( 130067)    | 82 ( 2733)      | 460 ( 15333)      | 546 ( 18200)    | 3902 ( 130067)    |
| GOV. POINT                      | 258 ( 8600)       | 67 ( 2233)      | 156 ( 5200)       | 30 ( 1000)      | 1346 ( 44866)     |
| TOTAL                           | 4414 ( 147134)    | 149 ( 4966)     | 616 ( 20533)      | 576 ( 19200)    | 5755 ( 191833)    |
| <b>CHLORIDE</b>                 |                   |                 |                   |                 |                   |
| LAKE MURDOCK                    | 9765 ( 3255500)   | 15400 ( 513333) | 100774 ( 3359133) | 9174 ( 305800)  | 9765 ( 3255500)   |
| GOV. POINT                      | 15978 ( 526000)   | 4851 ( 161700)  | 9884 ( 329467)    | 2119 ( 70633)   | 140426 ( 4680866) |
| TOTAL                           | 162439 ( 5414333) | 20251 ( 675033) | 110658 ( 3644600) | 11293 ( 376433) | 179284 ( 5976133) |
| <b>SILICA</b>                   |                   |                 |                   |                 |                   |
| LAKE MURDOCK                    | 14252 ( 475067)   | 2026 ( 67533)   | 3143 ( 104767)    | 2300 ( 76667)   | 14252 ( 475067)   |
| GOV. POINT                      | 1573 ( 52433)     | 152 ( 5067)     | 297 ( 9900)       | 66 ( 2200)      | 9042 ( 301400)    |
| TOTAL                           | 504 ( 16167)      | 2178 ( 72600)   | 3440 ( 114667)    | 2366 ( 78867)   | 1060 ( 35334)     |
|                                 | 16370 ( 545667)   |                 |                   |                 | 24354 ( 811801)   |

# BASIN LOADINGS IN METRIC TONS PER MONTH FOR DECEMBER, 1970 (AVE DAILY LOADS IN KG/DAY)

|                                | DE/ST. CLP BASIN  | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|--------------------------------|-------------------|-----------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                 |                   |                 |                    |
| LAKE MURPHY                    | 229 ( 7097)       | 185 ( 5968)     | 145 ( 4677)       | 127 ( 4097)     | 220 ( 7097)        |
| DOWN POINT                     | 172 ( 5504)       | 145 ( 4677)     | 280 ( 9032)       | 54 ( 1742)      | 629 ( 20290)       |
| POINT                          | 570 ( 18547)      | 330 ( 10645)    | 425 ( 15709)      | 181 ( 5839)     | 1049 ( 33838)      |
| TOTAL                          | 962 ( 31032)      |                 |                   |                 | 1898 ( 61225)      |
| <b>ORTHOPHOSPHORUS</b>         |                   |                 |                   |                 |                    |
| LAKE MURPHY                    | 99 ( 3194)        | 10 ( 323)       | 27 ( 871)         | 21 ( 677)       | 99 ( 3194)         |
| DOWN POINT                     | 43 ( 1387)        | 70 ( 2254)      | 125 ( 4032)       | 27 ( 871)       | 101 ( 3258)        |
| POINT                          | 224 ( 9226)       | 40 ( 2581)      | 152 ( 4903)       | 48 ( 1548)      | 508 ( 16387)       |
| TOTAL                          | 428 ( 13807)      |                 |                   |                 | 708 ( 22839)       |
| <b>NITRATE-NITRIF-AMMONIUM</b> |                   |                 |                   |                 |                    |
| LAKE MURPHY                    | 3266 ( 105355)    | 2594 ( 83806)   | 1475 ( 60484)     | 1059 ( 34161)   | 3266 ( 105355)     |
| DOWN POINT                     | 1943 ( 62677)     | 189 ( 6097)     | 307 ( 9903)       | 91 ( 2935)      | 7475 ( 241128)     |
| POINT                          | 743 ( 23964)      | 2787 ( 89903)   | 2192 ( 70387)     | 1150 ( 37096)   | 1330 ( 42903)      |
| TOTAL                          | 5952 ( 192001)    |                 |                   |                 | 12071 ( 389386)    |
| <b>AMMONIA NITROGEN</b>        |                   |                 |                   |                 |                    |
| LAKE MURPHY                    | 485 ( 15645)      | 21 ( 677)       | 175 ( 5645)       | 66 ( 2129)      | 485 ( 15645)       |
| DOWN POINT                     | 95 ( 3045)        | 195 ( 6290)     | 419 ( 13516)      | 108 ( 3484)     | 357 ( 11516)       |
| POINT                          | 844 ( 27226)      | 216 ( 6967)     | 594 ( 19161)      | 174 ( 5613)     | 1566 ( 50516)      |
| TOTAL                          | 1424 ( 45936)     |                 |                   |                 | 2408 ( 77677)      |
| <b>ORGANIC NITROGEN</b>        |                   |                 |                   |                 |                    |
| LAKE MURPHY                    | 4051 ( 130677)    | 191 ( 6161)     | 516 ( 16645)      | 434 ( 14000)    | 4051 ( 130677)     |
| DOWN POINT                     | 451 ( 14544)      | 71 ( 2290)      | 161 ( 5194)       | 31 ( 1000)      | 1592 ( 51354)      |
| POINT                          | 262 ( 8452)       | 262 ( 8451)     | 677 ( 21839)      | 465 ( 15000)    | 525 ( 16936)       |
| TOTAL                          | 4764 ( 153677)    |                 |                   |                 | 6168 ( 198967)     |
| <b>CHLORIDE</b>                |                   |                 |                   |                 |                    |
| LAKE MURPHY                    | 101403 ( 3271065) | 25366 ( 818258) | 111639 ( 3601258) | 12784 ( 412387) | 101403 ( 3271065)  |
| DOWN POINT                     | 22094 ( 712711)   | 5013 ( 161710)  | 10214 ( 329484)   | 2189 ( 70613)   | 171843 ( 5544613)  |
| POINT                          | 166354 ( 5366419) | 30379 ( 979968) | 121853 ( 3930742) | 14973 ( 483000) | 183775 ( 5928226)  |
| TOTAL                          | 289856 ( 9350194) |                 |                   |                 | 457061 ( 14743904) |
| <b>SILICA</b>                  |                   |                 |                   |                 |                    |
| LAKE MURPHY                    | 14798 ( 477355)   | 5343 ( 172355)  | 4276 ( 137935)    | 2787 ( 89903)   | 14798 ( 477355)    |
| DOWN POINT                     | 2807 ( 90548)     | 157 ( 5065)     | 307 ( 9903)       | 68 ( 2194)      | 15213 ( 490741)    |
| POINT                          | 563 ( 18161)      | 5500 ( 177420)  | 4583 ( 147838)    | 2855 ( 92097)   | 1095 ( 35323)      |
| TOTAL                          | 18168 ( 586864)   |                 |                   |                 | 31106 ( 1003419)   |

MAST- LOADINGS IN METRIC TONS PER MONTH FOR JANUARY, 1971  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLM BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 224 ( 7355)       |                 |                  |                | 224 ( 7355)        |
| NO. POINT                       | 76 ( 2052)        | 1 ( 32)         | 38 ( 1226)       | 38 ( 1226)     | 153 ( 4936)        |
| POINT                           | 563 ( 18161)      | 79 ( 2548)      | 235 ( 7581)      | 45 ( 1452)     | 922 ( 29742)       |
| TOTAL                           | 867 ( 27968)      | 80 ( 2580)      | 273 ( 8807)      | 83 ( 2678)     | 1303 ( 42033)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 81 ( 2613)        |                 |                  |                | 81 ( 2613)         |
| NO. POINT                       | 19 ( 613)         | 5 ( 161)        | 10 ( 323)        | 9 ( 290)       | 43 ( 1387)         |
| POINT                           | 282 ( 9197)       | 39 ( 1258)      | 103 ( 3323)      | 22 ( 710)      | 446 ( 14366)       |
| TOTAL                           | 382 ( 12323)      | 44 ( 1419)      | 113 ( 3646)      | 31 ( 1000)     | 570 ( 18388)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 3072 ( 99097)     |                 |                  |                | 3072 ( 99097)      |
| NO. POINT                       | 667 ( 21516)      | 247 ( 7968)     | 511 ( 16484)     | 367 ( 11839)   | 1792 ( 57807)      |
| POINT                           | 739 ( 23839)      | 174 ( 5613)     | 317 ( 10226)     | 88 ( 2839)     | 1318 ( 42517)      |
| TOTAL                           | 4478 ( 146852)    | 421 ( 13581)    | 828 ( 26710)     | 455 ( 14678)   | 6182 ( 199421)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 345 ( 11129)      |                 |                  |                | 345 ( 11129)       |
| NO. POINT                       | 34 ( 1097)        | 2 ( 65)         | 66 ( 2129)       | 23 ( 742)      | 125 ( 4033)        |
| POINT                           | 837 ( 27600)      | 162 ( 5226)     | 317 ( 10226)     | 82 ( 2645)     | 1398 ( 45097)      |
| TOTAL                           | 1216 ( 39826)     | 164 ( 5291)     | 383 ( 12355)     | 105 ( 3387)    | 1868 ( 60259)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 3728 ( 120258)    |                 |                  |                | 3728 ( 120258)     |
| NO. POINT                       | 190 ( 6120)       | 39 ( 1258)      | 199 ( 6419)      | 264 ( 8516)    | 692 ( 22322)       |
| POINT                           | 261 ( 8419)       | 65 ( 2097)      | 123 ( 3968)      | 30 ( 968)      | 479 ( 15452)       |
| TOTAL                           | 4179 ( 134406)    | 104 ( 3355)     | 322 ( 10387)     | 294 ( 9484)    | 4899 ( 158032)     |
| <b>CHLORINE</b>                 |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 8569 ( 2763516)   |                 |                  |                | 8569 ( 2763516)    |
| NO. POINT                       | 1044 ( 336194)    | 9099 ( 293516)  | 71817 ( 2316677) | 5356 ( 172774) | 96756 ( 3121161)   |
| POINT                           | 15924 ( 5352387)  | 4858 ( 156710)  | 9824 ( 316903)   | 2118 ( 68323)  | 182724 ( 5894323)  |
| TOTAL                           | 26277 ( 8455097)  | 13957 ( 450226) | 81641 ( 2633580) | 7474 ( 241097) | 365149 ( 11779000) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 14587 ( 470588)   |                 |                  |                | 14587 ( 470588)    |
| NO. POINT                       | 1130 ( 36452)     | 1190 ( 38347)   | 1622 ( 52323)    | 1202 ( 38774)  | 5144 ( 165936)     |
| POINT                           | 561 ( 18097)      | 152 ( 4903)     | 296 ( 9548)      | 66 ( 2129)     | 1075 ( 34677)      |
| TOTAL                           | 16278 ( 525597)   | 1342 ( 43290)   | 1918 ( 61871)    | 1268 ( 40903)  | 20806 ( 671161)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1971  
(AVE DAILY LOADS IN KG/DAY)

|                                | DE/ST. CL. BASIN   | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|--------------------------------|--------------------|------------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>        |                    |                  |                   |                |                    |
| LAKE MURON                     | 201 ( 7179)        | 741 ( 26364)     | 698 ( 24929)      | 93 ( 3321)     | 201 ( 7179)        |
| PON. POINT                     | 229 ( 8174)        | 131 ( 4679)      | 239 ( 8536)       | 41 ( 1464)     | 1761 ( 62093)      |
| POINT                          | 528 ( 18714)       | 872 ( 31143)     | 937 ( 33465)      | 134 ( 4785)    | 935 ( 33393)       |
| TOTAL                          | 958 ( 34072)       |                  |                   |                | 2897 ( 103465)     |
| <b>ORTHOPHOSPHORUS</b>         |                    |                  |                   |                |                    |
| LAKE MURON                     | 72 ( 2571)         | 121 ( 4321)      | 92 ( 3286)        | 9 ( 321)       | 72 ( 2571)         |
| PON. POINT                     | 63 ( 2250)         | 64 ( 2286)       | 105 ( 3750)       | 20 ( 714)      | 285 ( 10178)       |
| POINT                          | 360 ( 9286)        | 185 ( 6607)      | 197 ( 7036)       | 29 ( 1035)     | 849 ( 16036)       |
| TOTAL                          | 595 ( 14107)       |                  |                   |                | 896 ( 28785)       |
| <b>NITRATE-NITRIF NITROGEN</b> |                    |                  |                   |                |                    |
| LAKE MURON                     | 2708 ( 96714)      | 5903 ( 210821)   | 3702 ( 132214)    | 530 ( 18929)   | 2708 ( 96714)      |
| PON. POINT                     | 2769 ( 98893)      | 172 ( 6143)      | 287 ( 10250)      | 79 ( 2821)     | 12904 ( 460857)    |
| POINT                          | 669 ( 23893)       | 6075 ( 216964)   | 3989 ( 142464)    | 609 ( 21750)   | 1207 ( 43107)      |
| TOTAL                          | 6146 ( 219500)     |                  |                   |                | 16819 ( 600678)    |
| <b>AMMONIA NITROGEN</b>        |                    |                  |                   |                |                    |
| LAKE MURON                     | 304 ( 10857)       | 237 ( 8464)      | 485 ( 17321)      | 36 ( 1286)     | 304 ( 10857)       |
| PON. POINT                     | 159 ( 5679)        | 226 ( 7857)      | 361 ( 12893)      | 80 ( 2857)     | 917 ( 32750)       |
| POINT                          | 764 ( 27429)       | 457 ( 16321)     | 846 ( 30214)      | 116 ( 4143)    | 1429 ( 51036)      |
| TOTAL                          | 1231 ( 43965)      |                  |                   |                | 2650 ( 94643)      |
| <b>ORGANIC NITROGEN</b>        |                    |                  |                   |                |                    |
| LAKE MURON                     | 3286 ( 117357)     | 1086 ( 38786)    | 1222 ( 43643)     | 344 ( 12286)   | 3286 ( 117357)     |
| PON. POINT                     | 843 ( 30107)       | 64 ( 2286)       | 111 ( 3964)       | 27 ( 984)      | 3495 ( 124822)     |
| POINT                          | 236 ( 8429)        | 1150 ( 41072)    | 1333 ( 47607)     | 371 ( 13250)   | 438 ( 15643)       |
| TOTAL                          | 4365 ( 155893)     |                  |                   |                | 7219 ( 257822)     |
| <b>CHLORIDE</b>                |                    |                  |                   |                |                    |
| LAKE MURON                     | 75510 ( 2696786)   | 63171 ( 2256107) | 94214 ( 3364786)  | 6460 ( 230714) | 75510 ( 2696786)   |
| PON. POINT                     | 55492 ( 1980971)   | 4388 ( 156714)   | 8873 ( 316893)    | 1914 ( 68357)  | 219287 ( 7831678)  |
| POINT                          | 154048 ( 5501714)  | 67559 ( 2412821) | 103087 ( 3681679) | 8378 ( 299071) | 169223 ( 6043678)  |
| TOTAL                          | 285000 ( 10178571) |                  |                   |                | 464020 ( 16572142) |
| <b>SILICA</b>                  |                    |                  |                   |                |                    |
| LAKE MURON                     | 12857 ( 459179)    | 10409 ( 371750)  | 10194 ( 364071)   | 1704 ( 60537)  | 12857 ( 459179)    |
| PON. POINT                     | 4283 ( 152940)     | 137 ( 4893)      | 267 ( 9536)       | 59 ( 2107)     | 26590 ( 949642)    |
| POINT                          | 507 ( 18107)       | 10546 ( 376643)  | 10461 ( 373607)   | 1763 ( 62964)  | 970 ( 34643)       |
| TOTAL                          | 17647 ( 630250)    |                  |                   |                | 40417 ( 1443464)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH , 1971  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DEL/ST. CLW BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 227 ( 7323)        | 209 ( 9323)      | 255 ( 8226)       | 168 ( 5419)     | 227 ( 7323)        |
| NOA POINT                       | 1732 ( 55871)      | 145 ( 4677)      | 264 ( 8516)       | 45 ( 1452)      | 2444 ( 78839)      |
| POINT                           | 581 ( 18742)       | 434 ( 14000)     | 519 ( 16742)      | 213 ( 6871)     | 1035 ( 33387)      |
| TOTAL                           | 2540 ( 81936)      |                  |                   |                 | 3706 ( 119549)     |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 81 ( 2613)         | 69 ( 2226)       | 51 ( 1645)        | 23 ( 742)       | 81 ( 2613)         |
| NOA POINT                       | 91 ( 2935)         | 71 ( 2290)       | 125 ( 4032)       | 23 ( 742)       | 234 ( 7548)        |
| POINT                           | 240 ( 9355)        | 140 ( 4516)      | 176 ( 5677)       | 46 ( 1484)      | 509 ( 16419)       |
| TOTAL                           | 462 ( 14903)       |                  |                   |                 | 824 ( 26580)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 3057 ( 98613)      | 4970 ( 160323)   | 2633 ( 84935)     | 1179 ( 38032)   | 3057 ( 98613)      |
| NOA POINT                       | 3773 ( 121710)     | 191 ( 6161)      | 317 ( 10226)      | 88 ( 2839)      | 12555 ( 405000)    |
| POINT                           | 740 ( 23871)       | 5161 ( 166484)   | 2950 ( 95161)     | 1267 ( 40871)   | 1336 ( 43097)      |
| TOTAL                           | 7570 ( 244194)     |                  |                   |                 | 16948 ( 546710)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 343 ( 11065)       | 210 ( 6774)      | 275 ( 8871)       | 70 ( 2258)      | 343 ( 11065)       |
| NOA POINT                       | 247 ( 7968)        | 242 ( 7806)      | 377 ( 12161)      | 104 ( 3355)     | 802 ( 25871)       |
| POINT                           | 855 ( 27581)       | 452 ( 14580)     | 652 ( 21032)      | 174 ( 5613)     | 1578 ( 50903)      |
| TOTAL                           | 1445 ( 46614)      |                  |                   |                 | 2723 ( 87839)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 3710 ( 119677)     | 794 ( 25613)     | 834 ( 26903)      | 473 ( 15258)    | 3710 ( 119677)     |
| NOA POINT                       | 1218 ( 39290)      | 71 ( 2290)       | 123 ( 3968)       | 30 ( 968)       | 3319 ( 107064)     |
| POINT                           | 261 ( 8419)        | 865 ( 27903)     | 957 ( 30871)      | 503 ( 16226)    | 485 ( 15645)       |
| TOTAL                           | 5149 ( 167386)     |                  |                   |                 | 7514 ( 242386)     |
| <b>CHLORINE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 85255 ( 2750161)   | 50577 ( 1631516) | 131904 ( 4254468) | 13613 ( 439129) | 85255 ( 2750161)   |
| NOA POINT                       | 55091 ( 1777129)   | 4858 ( 156710)   | 9824 ( 316903)    | 2118 ( 68323)   | 251185 ( 8102742)  |
| POINT                           | 170553 ( 5501710)  | 55435 ( 1788226) | 141728 ( 4571871) | 15731 ( 507452) | 187353 ( 6043646)  |
| TOTAL                           | 310899 ( 10029000) |                  |                   |                 | 523793 ( 16896549) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 14516 ( 468258)    | 9503 ( 306548)   | 6319 ( 203639)    | 3234 ( 104323)  | 14516 ( 468258)    |
| NOA POINT                       | 5754 ( 185742)     | 152 ( 4903)      | 296 ( 9548)       | 66 ( 2129)      | 24814 ( 800452)    |
| POINT                           | 581 ( 18697)       | 9655 ( 311451)   | 6615 ( 213387)    | 3300 ( 106452)  | 1075 ( 34677)      |
| TOTAL                           | 20855 ( 672097)    |                  |                   |                 | 40405 ( 1303387)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1971  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 223 ( 7433)       | 13 ( 433)       | 43 ( 1433)       | 417 ( 13900)    | 223 ( 7433)        |
| POINTE                          | 269 ( 8967)       | 90 ( 3000)      | 222 ( 7400)      | 43 ( 1433)      | 742 ( 24733)       |
| TOTAL                           | 1002 ( 34733)     | 103 ( 3433)     | 265 ( 8833)      | 460 ( 15333)    | 1870 ( 62332)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 79 ( 2633)        | 7 ( 233)        | 10 ( 333)        | 48 ( 1600)      | 79 ( 2633)         |
| POINTE                          | 54 ( 1800)        | 47 ( 1567)      | 96 ( 3200)       | 22 ( 733)       | 119 ( 3966)        |
| TOTAL                           | 277 ( 9233)       | 54 ( 1800)      | 106 ( 3533)      | 70 ( 2333)      | 442 ( 14733)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 3002 ( 100067)    | 869 ( 28967)    | 660 ( 22000)     | 1455 ( 61833)   | 3002 ( 100067)     |
| POINTE                          | 2500 ( 83333)     | 180 ( 6000)     | 307 ( 10233)     | 84 ( 2800)      | 5884 ( 196133)     |
| TOTAL                           | 716 ( 23867)      | 1049 ( 34967)   | 967 ( 32233)     | 1939 ( 64633)   | 1287 ( 42900)      |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 6218 ( 207267)    |                 |                  |                 | 10173 ( 339100)    |
| POINTE                          |                   |                 |                  |                 |                    |
| TOTAL                           |                   |                 |                  |                 |                    |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 337 ( 11233)      | 23 ( 767)       | 67 ( 2233)       | 189 ( 4967)     | 337 ( 11233)       |
| POINTE                          | 120 ( 4000)       | 200 ( 6667)     | 308 ( 10267)     | 100 ( 3333)     | 359 ( 11967)       |
| TOTAL                           | 1273 ( 42433)     | 223 ( 7434)     | 375 ( 12500)     | 249 ( 8300)     | 1424 ( 47867)      |
| <b>CHLORIDE</b>                 |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 3643 ( 121433)    | 89 ( 2967)      | 196 ( 6533)      | 694 ( 23800)    | 3643 ( 121433)     |
| POINTE                          | 592 ( 19733)      | 67 ( 2233)      | 119 ( 3967)      | 29 ( 967)       | 1771 ( 59033)      |
| TOTAL                           | 4488 ( 149599)    | 156 ( 5200)     | 315 ( 10500)     | 923 ( 30767)    | 5862 ( 196066)     |
| <b>SILICA</b>                   |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 83707 ( 2790233)  | 17259 ( 575300) | 87601 ( 2920033) | 20744 ( 691467) | 83707 ( 2790233)   |
| POINTE                          | 25117 ( 837233)   | 4701 ( 156700)  | 9507 ( 316900)   | 2050 ( 68333)   | 150721 ( 5024033)  |
| TOTAL                           | 163099 ( 5436633) | 21960 ( 732000) | 97108 ( 3236933) | 22794 ( 759800) | 179357 ( 5978566)  |
| LAKE MURDOCK                    | 271923 ( 9064099) |                 |                  |                 | 413785 ( 13792832) |
| POINTE                          |                   |                 |                  |                 |                    |
| TOTAL                           |                   |                 |                  |                 |                    |
| <b>SILICA</b>                   |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 14252 ( 475067)   | 2154 ( 71800)   | 1581 ( 52700)    | 5325 ( 177500)  | 14252 ( 475067)    |
| POINTE                          | 3459 ( 115300)    | 147 ( 4900)     | 286 ( 9533)      | 64 ( 2133)      | 12519 ( 417300)    |
| TOTAL                           | 542 ( 18067)      | 2301 ( 76700)   | 1867 ( 62233)    | 5389 ( 179633)  | 1039 ( 34633)      |
| <b>SILICA</b>                   |                   |                 |                  |                 |                    |
| LAKE MURDOCK                    | 16253 ( 608434)   |                 |                  |                 | 27810 ( 927000)    |
| POINTE                          |                   |                 |                  |                 |                    |
| TOTAL                           |                   |                 |                  |                 |                    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MAY , 1971  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLW BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 237 ( 7645)       | 318 ( 10250)    | 78 ( 2516)       | 36 ( 1161)     | 237 ( 7645)        |
| NO. POINT                       | 48 ( 1508)        | 140 ( 4516)     | 238 ( 7677)      | 45 ( 1452)     | 480 ( 15083)       |
| POINT                           | 503 ( 16161)      | 458 ( 14774)    | 316 ( 10193)     | 81 ( 2613)     | 986 ( 31806)       |
| TOTAL                           | 848 ( 27354)      |                 |                  |                | 1703 ( 54934)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURON                      | 65 ( 2742)        | 22 ( 710)       | 14 ( 452)        | 7 ( 226)       | 85 ( 2742)         |
| NO. POINT                       | 14 ( 452)         | 70 ( 2258)      | 106 ( 3419)      | 22 ( 710)      | 57 ( 1840)         |
| POINT                           | 282 ( 9097)       | 92 ( 2968)      | 120 ( 3871)      | 29 ( 936)      | 480 ( 15484)       |
| TOTAL                           | 341 ( 12291)      |                 |                  |                | 622 ( 20066)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURON                      | 3205 ( 103387)    | 3874 ( 124968)  | 1703 ( 54935)    | 309 ( 9968)    | 3205 ( 103387)     |
| NO. POINT                       | 302 ( 9782)       | 173 ( 5511)     | 317 ( 10226)     | 88 ( 2839)     | 6188 ( 199613)     |
| POINT                           | 737 ( 23774)      | 4047 ( 130549)  | 2020 ( 65161)    | 397 ( 12807)   | 1315 ( 42420)      |
| TOTAL                           | 4244 ( 136903)    |                 |                  |                | 10708 ( 345420)    |
| <b>AMMONIA-NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 360 ( 11613)      | 2 ( 65)         | 35 ( 1129)       | 14 ( 452)      | 360 ( 11613)       |
| NO. POINT                       | 22 ( 710)         | 174 ( 5613)     | 331 ( 10677)     | 81 ( 2613)     | 73 ( 2356)         |
| POINT                           | 836 ( 26968)      | 176 ( 5678)     | 366 ( 11806)     | 95 ( 3065)     | 1422 ( 45871)      |
| TOTAL                           | 1218 ( 39291)     |                 |                  |                | 1855 ( 59840)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 3891 ( 125516)    | 388 ( 12516)    | 249 ( 8032)      | 253 ( 8161)    | 3891 ( 125516)     |
| NO. POINT                       | 153 ( 4290)       | 66 ( 2129)      | 123 ( 3968)      | 30 ( 968)      | 1023 ( 32999)      |
| POINT                           | 260 ( 8387)       | 454 ( 14685)    | 372 ( 12000)     | 283 ( 9129)    | 479 ( 15452)       |
| TOTAL                           | 4284 ( 138193)    |                 |                  |                | 5393 ( 173967)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURON                      | 89394 ( 2883677)  | 25486 ( 822129) | 76908 ( 2482194) | 5114 ( 164968) | 89394 ( 2883677)   |
| NO. POINT                       | 10117 ( 326355)   | 4858 ( 156710)  | 9824 ( 316903)   | 2118 ( 68323)  | 117665 ( 3795646)  |
| POINT                           | 165806 ( 5348581) | 30344 ( 978839) | 66772 ( 2799097) | 7232 ( 233291) | 182606 ( 5800517)  |
| TOTAL                           | 265317 ( 8558613) |                 |                  |                | 389665 ( 12569840) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURON                      | 15221 ( 491000)   | 7455 ( 240484)  | 2885 ( 93065)    | 1140 ( 36774)  | 15221 ( 491000)    |
| NO. POINT                       | 694 ( 22387)      | 152 ( 4903)     | 296 ( 9548)      | 66 ( 2129)     | 12174 ( 392710)    |
| POINT                           | 541 ( 18097)      | 1607 ( 245387)  | 3181 ( 102613)   | 1206 ( 38903)  | 1075 ( 34677)      |
| TOTAL                           | 16476 ( 531484)   |                 |                  |                | 28470 ( 918387)    |

DAILY LOADINGS TO METRIC TONS PER MONTH FOR JUNE, 1971  
(AVE DAILY LOADS IN KG/DAY)

|                          | WEST COAST BASIN  | ESTER BASIN     | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|--------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>  |                   |                 |                  |                |                    |
| LAKE HURON               | 232 ( 7733)       | 164 ( 3600)     | 17 ( 567)        | 25 ( 833)      | 232 ( 7733)        |
| LAKE SUPERIOR            | 34 ( 1134)        | 130 ( 4167)     | 214 ( 7133)      | 43 ( 1433)     | 184 ( 6133)        |
| LAKE MICHIGAN            | 502 ( 16067)      | 242 ( 8067)     | 231 ( 7700)      | 68 ( 2266)     | 933 ( 31100)       |
| TOTAL                    | 568 ( 26933)      |                 |                  |                | 1349 ( 44966)      |
| <b>DIAPYCNES</b>         |                   |                 |                  |                |                    |
| LAKE HURON               | 43 ( 2767)        | 3 ( 100)        | 2 ( 67)          | 5 ( 167)       | 43 ( 2767)         |
| LAKE SUPERIOR            | 9 ( 300)          | 54 ( 1967)      | 94 ( 3133)       | 21 ( 700)      | 19 ( 634)          |
| LAKE MICHIGAN            | 272 ( 9067)       | 54 ( 2067)      | 96 ( 3200)       | 26 ( 867)      | 446 ( 14867)       |
| TOTAL                    | 364 ( 12134)      |                 |                  |                | 504 ( 18266)       |
| <b>DIAPYCNES - TOTAL</b> |                   |                 |                  |                |                    |
| LAKE HURON               | 3131 ( 10367)     | 2662 ( 88733)   | 434 ( 14400)     | 186 ( 6200)    | 3131 ( 10367)      |
| LAKE SUPERIOR            | 126 ( 4200)       | 164 ( 5467)     | 307 ( 10233)     | 84 ( 2800)     | 2412 ( 93733)      |
| LAKE MICHIGAN            | 705 ( 23500)      | 2726 ( 74200)   | 745 ( 24833)     | 270 ( 9000)    | 1260 ( 42000)      |
| TOTAL                    | 3962 ( 132067)    |                 |                  |                | 7203 ( 240100)     |
| <b>AMMONIA - TOTAL</b>   |                   |                 |                  |                |                    |
| LAKE HURON               | 352 ( 11733)      | 11 ( 367)       | 14 ( 467)        | 2 ( 67)        | 352 ( 11733)       |
| LAKE SUPERIOR            | 16 ( 533)         | 145 ( 4833)     | 290 ( 9667)      | 74 ( 2467)     | 32 ( 1067)         |
| LAKE MICHIGAN            | 207 ( 26900)      | 145 ( 4833)     | 304 ( 10134)     | 76 ( 2534)     | 1316 ( 43867)      |
| TOTAL                    | 1175 ( 39166)     |                 |                  |                | 1700 ( 56667)      |
| <b>ORGANIC - TOTAL</b>   |                   |                 |                  |                |                    |
| LAKE HURON               | 3403 ( 126667)    | 156 ( 5200)     | 85 ( 2833)       | 156 ( 5267)    | 3403 ( 126667)     |
| LAKE SUPERIOR            | 48 ( 1633)        | 62 ( 2067)      | 119 ( 3967)      | 29 ( 967)      | 487 ( 16233)       |
| LAKE MICHIGAN            | 203 ( 8300)       | 214 ( 7267)     | 204 ( 6400)      | 187 ( 6234)    | 459 ( 15301)       |
| TOTAL                    | 4154 ( 137900)    |                 |                  |                | 4746 ( 154201)     |
| <b>CHLORIDE</b>          |                   |                 |                  |                |                    |
| LAKE HURON               | 87311 ( 2910367)  | 14843 ( 494767) | 35255 ( 1175167) | 3866 ( 128867) | 87311 ( 2910367)   |
| LAKE SUPERIOR            | 3052 ( 101734)    | 1701 ( 56700)   | 9507 ( 316900)   | 2050 ( 68333)  | 57016 ( 190534)    |
| LAKE MICHIGAN            | 160501 ( 5350333) | 19544 ( 651467) | 44762 ( 1492067) | 5916 ( 197200) | 176759 ( 5891966)  |
| TOTAL                    | 250664 ( 8362133) |                 |                  |                | 321046 ( 10702667) |
| <b>SILICA</b>            |                   |                 |                  |                |                    |
| LAKE HURON               | 14806 ( 495533)   | 4244 ( 141500)  | 1136 ( 37867)    | 781 ( 26033)   | 14806 ( 495533)    |
| LAKE SUPERIOR            | 437 ( 14567)      | 107 ( 3600)     | 246 ( 8133)      | 64 ( 2133)     | 459 ( 15301)       |
| LAKE MICHIGAN            | 502 ( 16067)      | 4342 ( 146000)  | 1422 ( 47400)    | 845 ( 28166)   | 1039 ( 34633)      |
| TOTAL                    | 15845 ( 521167)   |                 |                  |                | 22504 ( 750133)    |



# WASTE LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1971 (AVE DAILY LOADS IN KG/DAY)

|                                              | WESTERN BASIN      | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|----------------------------------------------|--------------------|-----------------|----------------|-------------------|
| <b>TOTAL DISCHARGES</b>                      |                    |                 |                |                   |
| LAKE SUPERIOR                                | 246 ( 7045)        |                 |                | 246 ( 7045)       |
| LAKE MICHIGAN                                | 20 ( 435)          |                 |                | 20 ( 435)         |
| LAKE ERIE                                    | 541 ( 10047)       | 2 ( 65)         | 19 ( 613)      | 51 ( 1645)        |
| LAKE ONTARIO                                 | 436 ( 26527)       | 201 ( 6000)     | 42 ( 1355)     | 865 ( 27900)      |
| TOTAL                                        | 1214 ( 30200)      | 203 ( 6540)     | 61 ( 1968)     | 1162 ( 37080)     |
| <b>NET TOXIC DISCHARGES</b>                  |                    |                 |                |                   |
| LAKE SUPERIOR                                | 88 ( 2430)         |                 |                | 88 ( 2430)        |
| LAKE MICHIGAN                                | 7 ( 220)           |                 |                | 7 ( 220)          |
| LAKE ERIE                                    | 281 ( 9065)        | 3 ( 97)         | 4 ( 129)       | 16 ( 517)         |
| LAKE ONTARIO                                 | 476 ( 12140)       | 90 ( 2903)      | 21 ( 677)      | 422 ( 13613)      |
| TOTAL                                        | 852 ( 21635)       | 96 ( 3000)      | 25 ( 806)      | 526 ( 16969)      |
| <b>WASTEWATER TREATMENT PLANT DISCHARGES</b> |                    |                 |                |                   |
| LAKE SUPERIOR                                | 3424 ( 107226)     |                 |                | 3424 ( 107226)    |
| LAKE MICHIGAN                                | 78 ( 2510)         |                 |                | 78 ( 2510)        |
| LAKE ERIE                                    | 728 ( 23100)       | 75 ( 2419)      | 110 ( 3508)    | 283 ( 9129)       |
| LAKE ONTARIO                                 | 4130 ( 153220)     | 304 ( 9006)     | 88 ( 2839)     | 1241 ( 40032)     |
| TOTAL                                        | 9240 ( 302000)     | 379 ( 12225)    | 198 ( 6347)    | 4808 ( 156346)    |
| <b>SEWAGE TREATMENT PLANT DISCHARGES</b>     |                    |                 |                |                   |
| LAKE SUPERIOR                                | 413 ( 12032)       |                 |                | 413 ( 12032)      |
| LAKE MICHIGAN                                | 13 ( 410)          |                 |                | 13 ( 410)         |
| LAKE ERIE                                    | 832 ( 26835)       | 1 ( 32)         | 1 ( 32)        | 16 ( 515)         |
| LAKE ONTARIO                                 | 1214 ( 30200)      | 270 ( 8049)     | 74 ( 2307)     | 1288 ( 41549)     |
| TOTAL                                        | 2460 ( 79267)      | 275 ( 8081)     | 75 ( 2419)     | 1677 ( 50096)     |
| <b>INDUSTRIAL DISCHARGES</b>                 |                    |                 |                |                   |
| LAKE SUPERIOR                                | 4035 ( 130161)     |                 |                | 4035 ( 130161)    |
| LAKE MICHIGAN                                | 64 ( 2190)         |                 |                | 64 ( 2190)        |
| LAKE ERIE                                    | 257 ( 8290)        |                 |                | 257 ( 8290)       |
| LAKE ONTARIO                                 | 4360 ( 146045)     | 14 ( 516)       | 114 ( 3677)    | 202 ( 6516)       |
| TOTAL                                        | 8616 ( 290486)     | 125 ( 4032)     | 144 ( 4405)    | 4885 ( 158901)    |
| <b>CHLORIDE</b>                              |                    |                 |                |                   |
| LAKE SUPERIOR                                | 92705 ( 2990000)   |                 |                | 92705 ( 2990000)  |
| LAKE MICHIGAN                                | 1022 ( 35071)      |                 |                | 1022 ( 35071)     |
| LAKE ERIE                                    | 165704 ( 5308100)  | 4971 ( 160355)  | 2405 ( 91770)  | 4659 ( 311581)    |
| LAKE ONTARIO                                 | 249921 ( 8343500)  | 9585 ( 309190)  | 2117 ( 68200)  | 181616 ( 5859581) |
| TOTAL                                        | 450002 ( 14680000) | 14556 ( 469539) | 4962 ( 160040) | 283080 ( 9160646) |
| <b>SILICA</b>                                |                    |                 |                |                   |
| LAKE SUPERIOR                                | 15745 ( 509190)    |                 |                | 15745 ( 509190)   |
| LAKE MICHIGAN                                | 347 ( 12000)       |                 |                | 347 ( 12000)      |
| LAKE ERIE                                    | 561 ( 18007)       | 242 ( 7806)     | 474 ( 15290)   | 1272 ( 41032)     |
| LAKE ONTARIO                                 | 16733 ( 530775)    | 290 ( 9355)     | 66 ( 2129)     | 1040 ( 34190)     |
| TOTAL                                        | 17687 ( 559775)    | 532 ( 17161)    | 540 ( 17419)   | 18117 ( 580204)   |

# BASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1971 (AVE DAILY LOADS IN KG/DAY)

|                                 | NET/ST. CLR BASIN | WESTERN BASIN  | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                 |                |                   |
| LAKE HURON                      | 238 ( 7933)       |                |                 |                | 238 ( 7933)       |
| NO. POINT                       | 28 ( 933)         | 1 ( 33)        | 5 ( 167)        | 14 ( 467)      | 48 ( 1600)        |
| POINT                           | 542 ( 18067)      | 67 ( 2233)     | 203 ( 6767)     | 41 ( 1367)     | 853 ( 28434)      |
| TOTAL                           | 808 ( 26933)      | 68 ( 2266)     | 208 ( 6934)     | 55 ( 1834)     | 1139 ( 37967)     |
| <b>ORTHO PHOSPHORUS</b>         |                   |                |                 |                |                   |
| LAKE HURON                      | 85 ( 2833)        |                |                 |                | 85 ( 2833)        |
| NO. POINT                       | 7 ( 233)          | 2 ( 67)        | 3 ( 100)        | 3 ( 100)       | 15 ( 500)         |
| POINT                           | 272 ( 9067)       | 32 ( 1067)     | 89 ( 2967)      | 21 ( 700)      | 414 ( 13801)      |
| TOTAL                           | 364 ( 12133)      | 34 ( 1134)     | 92 ( 3067)      | 24 ( 800)      | 514 ( 17134)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                |                 |                |                   |
| LAKE HURON                      | 3217 ( 107233)    |                |                 |                | 3217 ( 107233)    |
| NO. POINT                       | 71 ( 2367)        | 105 ( 3500)    | 134 ( 4467)     | 34 ( 1133)     | 344 ( 11467)      |
| POINT                           | 764 ( 23467)      | 159 ( 5300)    | 298 ( 9933)     | 84 ( 2800)     | 1245 ( 41500)     |
| TOTAL                           | 3992 ( 133067)    | 264 ( 8800)    | 432 ( 14400)    | 118 ( 3933)    | 4806 ( 160200)    |
| <b>AMMONIA NITROGEN</b>         |                   |                |                 |                |                   |
| LAKE HURON                      | 361 ( 12033)      |                |                 |                | 361 ( 12033)      |
| NO. POINT                       | 14 ( 467)         | 1 ( 33)        | 3 ( 100)        | 2 ( 67)        | 20 ( 667)         |
| POINT                           | 605 ( 20433)      | 111 ( 3700)    | 278 ( 9267)     | 68 ( 2267)     | 1262 ( 42067)     |
| TOTAL                           | 1180 ( 39333)     | 112 ( 3733)    | 281 ( 9367)     | 70 ( 2334)     | 1643 ( 54767)     |
| <b>ORGANIC NITROGEN</b>         |                   |                |                 |                |                   |
| LAKE HURON                      | 3904 ( 130133)    |                |                 |                | 3904 ( 130133)    |
| NO. POINT                       | 71 ( 2367)        | 4 ( 133)       | 27 ( 900)       | 112 ( 3733)    | 214 ( 7133)       |
| POINT                           | 249 ( 8300)       | 53 ( 1767)     | 115 ( 3833)     | 29 ( 967)      | 446 ( 14867)      |
| TOTAL                           | 4224 ( 140800)    | 57 ( 1900)     | 142 ( 4733)     | 141 ( 4700)    | 4564 ( 152133)    |
| <b>CHLORIDE</b>                 |                   |                |                 |                |                   |
| LAKE HURON                      | 89714 ( 2990467)  |                |                 |                | 89714 ( 2990467)  |
| NO. POINT                       | 1349 ( 45300)     | 1461 ( 62033)  | 12413 ( 413767) | 2366 ( 78867)  | 18029 ( 600967)   |
| POINT                           | 143064 ( 5435467) | 4701 ( 156700) | 9433 ( 314433)  | 2050 ( 68333)  | 179248 ( 5974933) |
| TOTAL                           | 250167 ( 842234)  | 6562 ( 218733) | 21846 ( 728200) | 4416 ( 147200) | 280991 ( 9566367) |
| <b>SILICA</b>                   |                   |                |                 |                |                   |
| LAKE HURON                      | 15275 ( 509167)   |                |                 |                | 15275 ( 509167)   |
| NO. POINT                       | 345 ( 11167)      | 410 ( 13667)   | 443 ( 14767)    | 404 ( 13467)   | 1652 ( 55067)     |
| POINT                           | 542 ( 18067)      | 147 ( 4900)    | 286 ( 9533)     | 64 ( 2133)     | 1039 ( 34633)     |
| TOTAL                           | 16212 ( 540401)   | 557 ( 18567)   | 729 ( 24300)    | 468 ( 15600)   | 17966 ( 598867)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1971  
(AVERAGE DAILY LOADS IN KG/DAY)

|                                 | DEL/ST. CLER BASIN | WESTERN BASIN  | CENTRAL BASIN    | EASTERN BASIN  | TOTAL             |
|---------------------------------|--------------------|----------------|------------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                |                  |                |                   |
| LAKE HURON                      | 291 ( 7774)        | 2 ( 65)        | 6 ( 194)         | 13 ( 419)      | 241 ( 7774)       |
| GOV. POINT                      | 29 ( 935)          | 72 ( 2323)     | 207 ( 6677)      | 42 ( 1355)     | 50 ( 1613)        |
| POINT                           | 561 ( 18097)       | 74 ( 2344)     | 213 ( 6871)      | 55 ( 1774)     | 882 ( 28452)      |
| TOTAL                           | 881 ( 26406)       |                |                  |                | 1173 ( 37839)     |
| <b>ORTHOPHOSPHORUS</b>          |                    |                |                  |                |                   |
| LAKE HURON                      | 86 ( 2774)         | 3 ( 97)        | 4 ( 129)         | 3 ( 97)        | 86 ( 2774)        |
| GOV. POINT                      | 7 ( 226)           | 34 ( 1097)     | 91 ( 2935)       | 21 ( 677)      | 17 ( 549)         |
| POINT                           | 241 ( 9065)        | 37 ( 1194)     | 95 ( 3064)       | 24 ( 774)      | 427 ( 13774)      |
| TOTAL                           | 374 ( 12065)       |                |                  |                | 530 ( 17097)      |
| <b>NITRATE-NITRITE-NITROGEN</b> |                    |                |                  |                |                   |
| LAKE HURON                      | 3256 ( 105032)     | 178 ( 5742)    | 172 ( 5548)      | 22 ( 710)      | 3256 ( 105032)    |
| GOV. POINT                      | 74 ( 2516)         | 162 ( 5226)    | 308 ( 9935)      | 88 ( 2839)     | 450 ( 14516)      |
| POINT                           | 733 ( 23685)       | 340 ( 10968)   | 480 ( 15483)     | 110 ( 3549)    | 1291 ( 41645)     |
| TOTAL                           | 4067 ( 131193)     |                |                  |                | 4997 ( 161193)    |
| <b>AMMONIA NITROGEN</b>         |                    |                |                  |                |                   |
| LAKE HURON                      | 365 ( 11774)       | 4 ( 129)       | 11 ( 355)        | 2 ( 65)        | 365 ( 11774)      |
| GOV. POINT                      | 13 ( 419)          | 120 ( 3871)    | 283 ( 9129)      | 69 ( 2226)     | 30 ( 968)         |
| POINT                           | 433 ( 26871)       | 124 ( 4000)    | 294 ( 9484)      | 71 ( 2291)     | 1305 ( 42097)     |
| TOTAL                           | 1211 ( 39064)      |                |                  |                | 1700 ( 54030)     |
| <b>ORGANIC NITROGEN</b>         |                    |                |                  |                |                   |
| LAKE HURON                      | 3952 ( 127484)     | 7 ( 226)       | 34 ( 1097)       | 114 ( 3677)    | 3952 ( 127484)    |
| GOV. POINT                      | 70 ( 2250)         | 60 ( 1935)     | 113 ( 3645)      | 30 ( 968)      | 225 ( 7250)       |
| POINT                           | 259 ( 8355)        | 67 ( 2161)     | 147 ( 4742)      | 144 ( 4645)    | 462 ( 14903)      |
| TOTAL                           | 4281 ( 138097)     |                |                  |                | 4639 ( 149645)    |
| <b>CHLORIDE</b>                 |                    |                |                  |                |                   |
| LAKE HURON                      | 90801 ( 2929065)   | 3473 ( 124935) | 27396 ( 883742)  | 2240 ( 72258)  | 90801 ( 2929065)  |
| GOV. POINT                      | 1912 ( 61677)      | 4835 ( 155968) | 9745 ( 314355)   | 2118 ( 68323)  | 35421 ( 1142612)  |
| POINT                           | 165893 ( 5351387)  | 8708 ( 280903) | 37141 ( 1198097) | 4358 ( 140581) | 182591 ( 580033)  |
| TOTAL                           | 258606 ( 8342129)  |                |                  |                | 306813 ( 9961710) |
| <b>SILICA</b>                   |                    |                |                  |                |                   |
| LAKE HURON                      | 15460 ( 498710)    | 542 ( 17484)   | 450 ( 14516)     | 388 ( 12516)   | 15460 ( 498710)   |
| GOV. POINT                      | 412 ( 13290)       | 150 ( 4834)    | 295 ( 9516)      | 66 ( 2129)     | 1792 ( 57806)     |
| POINT                           | 561 ( 18097)       | 692 ( 22323)   | 745 ( 24032)     | 454 ( 14645)   | 1872 ( 59581)     |
| TOTAL                           | 16433 ( 530097)    |                |                  |                | 18324 ( 591097)   |

BASIC LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1971  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN  | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                  |                |                    |
| LAKE MURRAY                     | 231 ( 7700)       | 5 ( 167)       | 21 ( 700)        | 12 ( 400)      | 231 ( 7700)        |
| POINTE A LA PUE                 | 34 ( 1133)        | 62 ( 2067)     | 203 ( 6767)      | 42 ( 1400)     | 72 ( 2400)         |
| POINTE A LA PUE                 | 542 ( 18067)      | 67 ( 2234)     | 224 ( 7467)      | 54 ( 1800)     | 849 ( 28301)       |
| TOTAL                           | 807 ( 26600)      |                |                  |                | 1152 ( 38401)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                |                  |                |                    |
| LAKE MURRAY                     | 82 ( 2733)        | 3 ( 100)       | 4 ( 133)         | 1 ( 33)        | 82 ( 2733)         |
| POINTE A LA PUE                 | 9 ( 300)          | 31 ( 1033)     | 89 ( 2967)       | 21 ( 700)      | 17 ( 566)          |
| POINTE A LA PUE                 | 272 ( 9067)       | 34 ( 1133)     | 93 ( 3100)       | 22 ( 733)      | 413 ( 13767)       |
| TOTAL                           | 363 ( 12100)      |                |                  |                | 512 ( 17066)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                |                  |                |                    |
| LAKE MURRAY                     | 3116 ( 103867)    | 256 ( 8533)    | 450 ( 15000)     | 42 ( 1400)     | 3116 ( 103867)     |
| POINTE A LA PUE                 | 140 ( 4667)       | 128 ( 4267)    | 299 ( 9967)      | 74 ( 2600)     | 848 ( 29600)       |
| POINTE A LA PUE                 | 704 ( 23400)      | 364 ( 12800)   | 749 ( 24967)     | 120 ( 4000)    | 1213 ( 40434)      |
| TOTAL                           | 3960 ( 132134)    |                |                  |                | 5217 ( 173901)     |
| <b>AMMONIA-NITROGEN</b>         |                   |                |                  |                |                    |
| LAKE MURRAY                     | 350 ( 11667)      | 10 ( 333)      | 45 ( 1500)       | 3 ( 100)       | 350 ( 11667)       |
| POINTE A LA PUE                 | 14 ( 467)         | 116 ( 3867)    | 275 ( 9167)      | 66 ( 2200)     | 72 ( 2400)         |
| POINTE A LA PUE                 | 404 ( 26933)      | 126 ( 4200)    | 320 ( 10667)     | 69 ( 2300)     | 1265 ( 42167)      |
| TOTAL                           | 1172 ( 39067)     |                |                  |                | 1687 ( 56234)      |
| <b>ORGANIC NITROGEN</b>         |                   |                |                  |                |                    |
| LAKE MURRAY                     | 3742 ( 126067)    | 25 ( 833)      | 86 ( 2867)       | 115 ( 3833)    | 3762 ( 126067)     |
| POINTE A LA PUE                 | 41 ( 1367)        | 47 ( 1567)     | 116 ( 3867)      | 29 ( 967)      | 307 ( 10233)       |
| POINTE A LA PUE                 | 250 ( 8333)       | 72 ( 2400)     | 202 ( 6734)      | 144 ( 4800)    | 442 ( 14734)       |
| TOTAL                           | 4113 ( 137100)    |                |                  |                | 4531 ( 151034)     |
| <b>CHLORIDE</b>                 |                   |                |                  |                |                    |
| LAKE MURRAY                     | 86911 ( 2897033)  | 5203 ( 173433) | 53742 ( 1791400) | 2238 ( 74600)  | 86911 ( 2897033)   |
| POINTE A LA PUE                 | 2417 ( 80567)     | 4094 ( 138467) | 9476 ( 315867)   | 2050 ( 68333)  | 63600 ( 2120000)   |
| POINTE A LA PUE                 | 150952 ( 531733)  | 9297 ( 309900) | 63218 ( 2107267) | 4288 ( 142933) | 175572 ( 5852400)  |
| TOTAL                           | 249280 ( 8304333) |                |                  |                | 326083 ( 10869433) |
| <b>SILICA</b>                   |                   |                |                  |                |                    |
| LAKE MURRAY                     | 14798 ( 493267)   | 399 ( 13300)   | 425 ( 27500)     | 484 ( 16267)   | 14798 ( 493267)    |
| POINTE A LA PUE                 | 464 ( 15467)      | 144 ( 4800)    | 245 ( 9500)      | 64 ( 2133)     | 2176 ( 72534)      |
| POINTE A LA PUE                 | 502 ( 16667)      | 543 ( 18100)   | 1110 ( 37000)    | 552 ( 18400)   | 1035 ( 34500)      |
| TOTAL                           | 15464 ( 522001)   |                |                  |                | 18009 ( 600301)    |

AD-A132 454 LAKE ERIE NUTRIENT LOADS 1970-1980(U) CORPS OF  
ENGINEERS BUFFALO NY BUFFALO DISTRICT  
S M YAKSICH ET AL. SEP 82

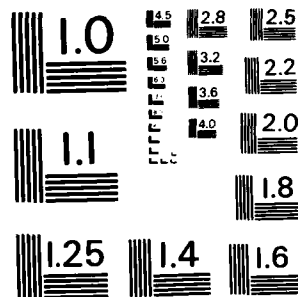
LAKE ERIE NUTRIENT LOADS 1970-1980(U) CORPS OF  
ENGINEERS BUFFALO NY BUFFALO DISTRICT  
S M YAKSICH ET AL. SEP 82

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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

BASIN LOADINGS IN METRIC TONS PER MONTH FUP DECEMBER, 1971  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLM BASIN | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                   |                |                    |
| LAKE HURON                      | 234 ( 7548)       | 189 ( 6097)     | 188 ( 4774)       | 83 ( 2677)     | 234 ( 7548)        |
| FUP POINT                       | 96 ( 2903)        | 140 ( 4516)     | 261 ( 8419)       | 45 ( 1452)     | 510 ( 16451)       |
| POINT                           | 565 ( 18224)      | 329 ( 10613)    | 409 ( 13193)      | 128 ( 4129)    | 1011 ( 32613)      |
| TOTAL                           | 895 ( 28677)      |                 |                   |                | 1755 ( 56612)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                   |                |                    |
| LAKE HURON                      | 83 ( 2677)        |                 |                   |                | 83 ( 2677)         |
| FUP POINT                       | 26 ( 839)         | 14 ( 452)       | 12 ( 387)         | 6 ( 194)       | 58 ( 1872)         |
| POINT                           | 284 ( 9161)       | 70 ( 2258)      | 115 ( 3710)       | 22 ( 710)      | 491 ( 15839)       |
| TOTAL                           | 393 ( 12677)      | 84 ( 2710)      | 127 ( 4097)       | 28 ( 904)      | 632 ( 20588)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                   |                |                    |
| LAKE HURON                      | 3161 ( 101968)    | 3130 ( 100968)  | 1210 ( 39032)     | 461 ( 14871)   | 3161 ( 101968)     |
| FUP POINT                       | 1109 ( 35774)     | 174 ( 5613)     | 317 ( 10226)      | 88 ( 2839)     | 5910 ( 190483)     |
| POINT                           | 740 ( 23871)      | 3304 ( 106581)  | 1527 ( 49258)     | 549 ( 17710)   | 1319 ( 42549)      |
| TOTAL                           | 5010 ( 161613)    |                 |                   |                | 10390 ( 335162)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                   |                |                    |
| LAKE HURON                      | 355 ( 11452)      |                 |                   |                | 355 ( 11452)       |
| FUP POINT                       | 51 ( 1645)        | 9 ( 290)        | 224 ( 7226)       | 31 ( 1000)     | 315 ( 10161)       |
| POINT                           | 439 ( 27065)      | 168 ( 5419)     | 348 ( 11226)      | 84 ( 2710)     | 1439 ( 46420)      |
| TOTAL                           | 1245 ( 40162)     | 177 ( 5709)     | 572 ( 18452)      | 115 ( 3710)    | 2109 ( 68033)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                   |                |                    |
| LAKE HURON                      | 3437 ( 123774)    |                 |                   |                | 3437 ( 123774)     |
| FUP POINT                       | 277 ( 8935)       | 327 ( 10548)    | 444 ( 14323)      | 261 ( 8419)    | 1309 ( 42225)      |
| POINT                           | 261 ( 8419)       | 66 ( 2129)      | 123 ( 3968)       | 30 ( 968)      | 480 ( 15484)       |
| TOTAL                           | 4375 ( 141124)    | 393 ( 12677)    | 567 ( 18291)      | 291 ( 9387)    | 5626 ( 181483)     |
| <b>CHLORIDE</b>                 |                   |                 |                   |                |                    |
| LAKE HURON                      | 88152 ( 2843613)  |                 |                   |                | 88152 ( 2843613)   |
| FUP POINT                       | 17207 ( 55065)    | 23699 ( 764884) | 91593 ( 2954613)  | 6431 ( 207452) | 138930 ( 4481614)  |
| POINT                           | 170553 ( 5501710) | 4858 ( 156710)  | 9824 ( 316903)    | 2118 ( 69323)  | 187353 ( 6043646)  |
| TOTAL                           | 275912 ( 8900344) | 28557 ( 921194) | 101417 ( 3271516) | 8549 ( 275775) | 414435 ( 13368073) |
| <b>SILICA</b>                   |                   |                 |                   |                |                    |
| LAKE HURON                      | 15009 ( 484161)   |                 |                   |                | 15009 ( 484161)    |
| FUP POINT                       | 1708 ( 55097)     | 6006 ( 193742)  | 3491 ( 112613)    | 1910 ( 61613)  | 13115 ( 423065)    |
| POINT                           | 561 ( 18097)      | 152 ( 4903)     | 296 ( 9548)       | 66 ( 2129)     | 1075 ( 34677)      |
| TOTAL                           | 17278 ( 557355)   | 6158 ( 198645)  | 3787 ( 122161)    | 1976 ( 63742)  | 29199 ( 941903)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JANUARY, 1972  
(AVE DAILY LOADS IN KG/DAY)

|                                 | UP/ST. CLW BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|------------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                   |                |                    |
| Lake Huron                      | 228 ( 7355)       | 66 ( 2129)       | 64 ( 2065)        | 44 ( 1419)     | 228 ( 7355)        |
| North Point                     | 95 ( 3065)        | 137 ( 4419)      | 230 ( 7419)       | 37 ( 1194)     | 269 ( 8678)        |
| Point                           | 600 ( 19355)      | 203 ( 6548)      | 294 ( 9484)       | 81 ( 2613)     | 1004 ( 32387)      |
| TOTAL                           | 923 ( 29775)      |                  |                   |                | 1501 ( 48420)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                  |                   |                |                    |
| Lake Huron                      | 99 ( 3194)        | 20 ( 645)        | 12 ( 387)         | 6 ( 194)       | 99 ( 3194)         |
| North Point                     | 24 ( 774)         | 69 ( 2226)       | 101 ( 3258)       | 18 ( 581)      | 62 ( 2000)         |
| Point                           | 301 ( 9710)       | 89 ( 2871)       | 113 ( 3645)       | 24 ( 775)      | 489 ( 15775)       |
| TOTAL                           | 424 ( 13678)      |                  |                   |                | 650 ( 20969)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                  |                   |                |                    |
| Lake Huron                      | 3110 ( 100323)    | 2751 ( 88742)    | 645 ( 20548)      | 356 ( 11404)   | 3110 ( 100323)     |
| North Point                     | 1123 ( 36226)     | 191 ( 6161)      | 330 ( 10645)      | 92 ( 2968)     | 5115 ( 165000)     |
| Point                           | 770 ( 24830)      | 2942 ( 94993)    | 1215 ( 39193)     | 448 ( 14452)   | 1383 ( 44613)      |
| TOTAL                           | 5003 ( 161383)    |                  |                   |                | 9608 ( 309936)     |
| <b>AMMONIA-NITROGEN</b>         |                   |                  |                   |                |                    |
| Lake Huron                      | 206 ( 6645)       | 25 ( 806)        | 114 ( 3677)       | 19 ( 613)      | 206 ( 6645)        |
| North Point                     | 46 ( 1484)        | 207 ( 7968)      | 358 ( 11548)      | 86 ( 2774)     | 204 ( 6580)        |
| Point                           | 877 ( 28290)      | 272 ( 8774)      | 472 ( 15225)      | 105 ( 3367)    | 1568 ( 50580)      |
| TOTAL                           | 1129 ( 36419)     |                  |                   |                | 1978 ( 63805)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                   |                |                    |
| Lake Huron                      | 2892 ( 93290)     | 272 ( 8774)      | 291 ( 9387)       | 236 ( 7613)    | 2892 ( 93290)      |
| North Point                     | 276 ( 8903)       | 72 ( 2323)       | 129 ( 4161)       | 32 ( 1032)     | 1075 ( 34677)      |
| Point                           | 272 ( 8774)       | 344 ( 11097)     | 470 ( 15448)      | 248 ( 8045)    | 505 ( 16290)       |
| TOTAL                           | 3440 ( 110567)    |                  |                   |                | 4072 ( 144257)     |
| <b>CHLORIDE</b>                 |                   |                  |                   |                |                    |
| Lake Huron                      | 90188 ( 2909290)  | 28088 ( 906065)  | 102524 ( 3307355) | 5406 ( 174387) | 90188 ( 2909290)   |
| North Point                     | 13476 ( 434710)   | 5193 ( 167516)   | 10357 ( 334097)   | 2221 ( 71645)  | 149498 ( 4822517)  |
| Point                           | 167340 ( 5399065) | 33281 ( 1073501) | 112485 ( 3641452) | 7627 ( 246032) | 185111 ( 5971323)  |
| TOTAL                           | 271004 ( 8742065) |                  |                   |                | 424797 ( 13703130) |
| <b>SILICA</b>                   |                   |                  |                   |                |                    |
| Lake Huron                      | 15009 ( 484161)   | 5298 ( 170903)   | 2491 ( 80355)     | 1383 ( 44613)  | 15009 ( 484161)    |
| North Point                     | 1724 ( 55742)     | 162 ( 5226)      | 311 ( 10032)      | 69 ( 2226)     | 10900 ( 351613)    |
| Point                           | 583 ( 18806)      | 5460 ( 176124)   | 2802 ( 90387)     | 1452 ( 46839)  | 1125 ( 36290)      |
| TOTAL                           | 17320 ( 558709)   |                  |                   |                | 27034 ( 872064)    |

BASIN LOADINGS 1<sup>st</sup> FETRIC TONS PER MONTH FOR FEBRUARY, 1972  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL               |
|---------------------------------|--------------------|------------------|-------------------|-----------------|---------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                     |
| LAKE MURON                      | 211 ( 7274 )       | 1 ( 34 )         | 38 ( 1310 )       | 24 ( 820 )      | 211 ( 484161 )      |
| ADD. POINT                      | 89 ( 1690 )        |                  | 208 ( 7172 )      | 33 ( 1136 )     | 112 ( 3862 )        |
| POLUT                           | 558 ( 19241 )      | 78 ( 2655 )      | 246 ( 8483 )      | 57 ( 1966 )     | 876 ( 30206 )       |
| TOTAL                           | 814 ( 24207 )      |                  |                   |                 | 1199 ( 41346 )      |
| <b>UNITED PHOSPHORUS</b>        |                    |                  |                   |                 |                     |
| LAKE MURON                      | 91 ( 3138 )        | 4 ( 138 )        | 6 ( 207 )         | 5 ( 172 )       | 91 ( 484161 )       |
| ADD. POINT                      | 14 ( 621 )         |                  | 91 ( 3138 )       | 16 ( 552 )      | 33 ( 1136 )         |
| POLUT                           | 280 ( 9655 )       | 41 ( 1414 )      | 97 ( 3345 )       | 21 ( 724 )      | 424 ( 14621 )       |
| TOTAL                           | 385 ( 13414 )      |                  |                   |                 | 548 ( 18897 )       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                 |                     |
| LAKE MURON                      | 2882 ( 99379 )     | 145 ( 5000 )     | 530 ( 18276 )     | 115 ( 3960 )    | 2882 ( 484161 )     |
| ADD. POINT                      | 399 ( 13759 )      | 174 ( 6000 )     | 309 ( 10655 )     | 86 ( 2966 )     | 1189 ( 41001 )      |
| POLUT                           | 720 ( 24820 )      | 319 ( 11000 )    | 839 ( 28931 )     | 201 ( 6931 )    | 1289 ( 44449 )      |
| TOTAL                           | 4001 ( 137966 )    |                  |                   |                 | 5360 ( 184828 )     |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                     |
| LAKE MURON                      | 191 ( 6586 )       | 1 ( 34 )         | 77 ( 2655 )       | 8 ( 130 )       | 191 ( 484161 )      |
| ADD. POINT                      | 31 ( 1049 )        |                  | 322 ( 11103 )     | 72 ( 2483 )     | 113 ( 3896 )        |
| POLUT                           | 817 ( 28172 )      | 154 ( 5310 )     | 399 ( 13759 )     | 76 ( 2621 )     | 1365 ( 47068 )      |
| TOTAL                           | 1039 ( 35824 )     |                  |                   |                 | 1669 ( 57553 )      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                     |
| LAKE MURON                      | 2680 ( 92414 )     | 31 ( 1069 )      | 185 ( 6379 )      | 163 ( 5621 )    | 2680 ( 484161 )     |
| ADD. POINT                      | 125 ( 4310 )       | 66 ( 2276 )      | 120 ( 4138 )      | 30 ( 1034 )     | 504 ( 17379 )       |
| POLUT                           | 254 ( 8759 )       | 97 ( 3345 )      | 305 ( 10517 )     | 193 ( 6655 )    | 470 ( 16207 )       |
| TOTAL                           | 3059 ( 105483 )    |                  |                   |                 | 3654 ( 126000 )     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                     |
| LAKE MURON                      | 83577 ( 2841946 )  | 6659 ( 229621 )  | 83824 ( 2890483 ) | 3342 ( 115241 ) | 83577 ( 484161 )    |
| ADD. POINT                      | 7497 ( 258517 )    | 4858 ( 167517 )  | 9689 ( 334103 )   | 2078 ( 71655 )  | 101322 ( 3493862 )  |
| POLUT                           | 155195 ( 5351552 ) | 11517 ( 397138 ) | 93513 ( 3224586 ) | 5420 ( 188897 ) | 171820 ( 5928827 )  |
| TOTAL                           | 246269 ( 8492034 ) |                  |                   |                 | 356719 ( 12300655 ) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                     |
| LAKE MURON                      | 13909 ( 479621 )   | 1029 ( 35483 )   | 1696 ( 58483 )    | 771 ( 26586 )   | 13909 ( 484161 )    |
| ADD. POINT                      | 790 ( 27201 )      | 152 ( 5241 )     | 291 ( 10034 )     | 65 ( 2241 )     | 4286 ( 147793 )     |
| POLUT                           | 545 ( 18793 )      | 1141 ( 40724 )   | 1987 ( 68517 )    | 836 ( 28620 )   | 1053 ( 36309 )      |
| TOTAL                           | 15244 ( 525655 )   |                  |                   |                 | 19248 ( 663724 )    |

# HASIN LOADINGS IN ELECTRIC TUNIS PER MONTH FOR MARCH, 1972 (AVE DAILY LOADS IN MG/DAY)

|                                 | DET/ST. CLM BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                   |                 |                    |
| LAKE MURON                      | 218 ( 7032)       | 373 ( 12032)     | 570 ( 18387)      | 259 ( 8355)     | 218 ( 7032)        |
| NO. POINT                       | 438 ( 14129)      | 140 ( 4516)      | 200 ( 7782)       | 37 ( 1194)      | 1640 ( 52903)      |
| POINT                           | 609 ( 19645)      | 513 ( 16548)     | 810 ( 26129)      | 296 ( 9549)     | 1026 ( 33097)      |
| TOTAL                           | 1265 ( 40806)     |                  |                   |                 | 2884 ( 93032)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                  |                   |                 |                    |
| LAKE MURON                      | 95 ( 3065)        | 72 ( 2323)       | 83 ( 2677)        | 26 ( 839)       | 95 ( 3065)         |
| NO. POINT                       | 101 ( 3258)       | 70 ( 2258)       | 118 ( 3806)       | 19 ( 613)       | 282 ( 9097)        |
| POINT                           | 305 ( 9839)       | 142 ( 4581)      | 201 ( 6483)       | 45 ( 1452)      | 512 ( 16516)       |
| TOTAL                           | 501 ( 16162)      |                  |                   |                 | 889 ( 28678)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                  |                   |                 |                    |
| LAKE MURON                      | 2079 ( 96097)     | 5190 ( 167419)   | 3648 ( 117677)    | 1412 ( 45548)   | 2979 ( 96097)      |
| NO. POINT                       | 4834 ( 155935)    | 200 ( 6452)      | 330 ( 10645)      | 92 ( 2968)      | 15084 ( 486579)    |
| POINT                           | 778 ( 24839)      | 5390 ( 173871)   | 3978 ( 128322)    | 1504 ( 48516)   | 1392 ( 44904)      |
| TOTAL                           | 4591 ( 146271)    |                  |                   |                 | 19455 ( 627580)    |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                   |                 |                    |
| LAKE MURON                      | 198 ( 6387)       | 141 ( 4548)      | 479 ( 15452)      | 114 ( 3677)     | 198 ( 6387)        |
| NO. POINT                       | 264 ( 8516)       | 260 ( 8387)      | 415 ( 13387)      | 110 ( 3548)     | 998 ( 32193)       |
| POINT                           | 485 ( 15548)      | 401 ( 12935)     | 894 ( 28839)      | 224 ( 7225)     | 1670 ( 53870)      |
| TOTAL                           | 1347 ( 43451)     |                  |                   |                 | 2866 ( 92450)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                   |                 |                    |
| LAKE MURON                      | 2776 ( 89355)     | 744 ( 24000)     | 1311 ( 42290)     | 742 ( 23935)    | 2776 ( 89355)      |
| NO. POINT                       | 1147 ( 37000)     | 74 ( 2387)       | 129 ( 4161)       | 32 ( 1032)      | 3944 ( 127225)     |
| POINT                           | 272 ( 8774)       | 818 ( 26387)     | 1449 ( 46451)     | 774 ( 24967)    | 507 ( 16354)       |
| TOTAL                           | 4189 ( 135129)    |                  |                   |                 | 7221 ( 232934)     |
| <b>CHLORIDE</b>                 |                   |                  |                   |                 |                    |
| LAKE MURON                      | 96377 ( 2786355)  | 40230 ( 1426774) | 124110 ( 4003548) | 15087 ( 486677) | 86377 ( 2786355)   |
| NO. POINT                       | 49333 ( 1591387)  | 5193 ( 167516)   | 10357 ( 334097)   | 2221 ( 71645)   | 232760 ( 750386)   |
| POINT                           | 170454 ( 5511504) | 49423 ( 1594290) | 134467 ( 4337645) | 17308 ( 558322) | 188629 ( 6084806)  |
| TOTAL                           | 306564 ( 9899290) |                  |                   |                 | 507766 ( 16379547) |
| <b>SILICA</b>                   |                   |                  |                   |                 |                    |
| LAKE MURON                      | 14375 ( 463710)   | 9552 ( 308129)   | 9588 ( 309290)    | 4223 ( 136226)  | 14375 ( 463710)    |
| NO. POINT                       | 6114 ( 197355)    | 162 ( 5226)      | 311 ( 10032)      | 69 ( 2226)      | 29481 ( 951000)    |
| POINT                           | 543 ( 1806)       | 4714 ( 313355)   | 9849 ( 314322)    | 4292 ( 138452)  | 1125 ( 36290)      |
| TOTAL                           | 21076 ( 679471)   |                  |                   |                 | 44081 ( 1451000)   |

# WAST. LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1972

## (AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLW BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURON                      | 213 ( 7100)        | 969 ( 32300)     | 373 ( 12433)      | 673 ( 22433)    | 213 ( 7100)        |
| ADJ. POINT                      | 454 ( 15267)       | 134 ( 4533)      | 235 ( 7767)       | 35 ( 1167)      | 2473 ( 82033)      |
| PULP                            | 591 ( 19700)       | 1105 ( 36833)    | 606 ( 20200)      | 708 ( 23600)    | 995 ( 33167)       |
| TOTAL                           | 1262 ( 42067)      |                  |                   |                 | 3681 ( 122700)     |
| <b>UNITED PHOSPHORUS</b>        |                    |                  |                   |                 |                    |
| LAKE MURON                      | 92 ( 3067)         | 164 ( 5600)      | 64 ( 2133)        | 63 ( 2100)      | 92 ( 3067)         |
| ADJ. POINT                      | 101 ( 3347)        | 68 ( 2267)       | 102 ( 3400)       | 18 ( 600)       | 396 ( 13200)       |
| PULP                            | 295 ( 9833)        | 236 ( 7867)      | 164 ( 5533)       | 81 ( 2700)      | 823 ( 16100)       |
| TOTAL                           | 488 ( 16267)       |                  |                   |                 | 971 ( 32367)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURON                      | 2911 ( 97033)      | 6988 ( 232933)   | 2969 ( 98967)     | 2252 ( 75067)   | 2911 ( 97033)      |
| ADJ. POINT                      | 9452 ( 108400)     | 198 ( 6600)      | 320 ( 10667)      | 88 ( 2933)      | 14461 ( 55367)     |
| PULP                            | 745 ( 24833)       | 7146 ( 239533)   | 3289 ( 109634)    | 2340 ( 78000)   | 1351 ( 45033)      |
| TOTAL                           | 4108 ( 270266)     |                  |                   |                 | 20923 ( 697433)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURON                      | 193 ( 6433)        | 300 ( 10000)     | 278 ( 9267)       | 168 ( 5600)     | 193 ( 6433)        |
| ADJ. POINT                      | 254 ( 8500)        | 252 ( 8400)      | 395 ( 13167)      | 107 ( 3567)     | 1004 ( 33467)      |
| PULP                            | 856 ( 28533)       | 552 ( 18400)     | 673 ( 22434)      | 275 ( 9167)     | 1610 ( 53667)      |
| TOTAL                           | 1307 ( 43566)      |                  |                   |                 | 2007 ( 93567)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURON                      | 2707 ( 90233)      | 1423 ( 47433)    | 479 ( 29300)      | 1044 ( 34800)   | 2707 ( 90233)      |
| ADJ. POINT                      | 1152 ( 38400)      | 72 ( 2400)       | 124 ( 4133)       | 30 ( 1000)      | 4494 ( 149933)     |
| PULP                            | 263 ( 8767)        | 1495 ( 49833)    | 1003 ( 33433)     | 1074 ( 35800)   | 449 ( 16300)       |
| TOTAL                           | 4122 ( 137400)     |                  |                   |                 | 7694 ( 256466)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURON                      | 84410 ( 2813667)   | 62666 ( 208867)  | 102256 ( 3409533) | 23101 ( 770033) | 84410 ( 2813667)   |
| ADJ. POINT                      | 58644 ( 1954267)   | 5025 ( 167500)   | 10023 ( 334100)   | 2150 ( 71667)   | 246711 ( 8223700)  |
| PULP                            | 165347 ( 5511567)  | 67691 ( 2256367) | 112279 ( 3742633) | 25251 ( 841700) | 142545 ( 6084834)  |
| TOTAL                           | 308445 ( 10241501) |                  |                   |                 | 513666 ( 17122201) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURON                      | 14044 ( 468267)    | 13238 ( 441267)  | 7346 ( 240867)    | 6103 ( 203433)  | 14044 ( 468267)    |
| ADJ. POINT                      | 5751 ( 191700)     | 157 ( 5233)      | 301 ( 10033)      | 67 ( 2233)      | 32438 ( 1081267)   |
| PULP                            | 564 ( 18800)       | 13395 ( 446500)  | 7647 ( 254900)    | 6170 ( 205666)  | 1049 ( 36299)      |
| TOTAL                           | 20363 ( 674767)    |                  |                   |                 | 47575 ( 1585833)   |

WASTEWATER LOADINGS IN METRIC TONS PER MONTH FOR MAY, 1972  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|------------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                   |                |                    |
| LAKE HURON                      | 230 ( 7419)       | 100 ( 3226)      | 108 ( 3484)       | 67 ( 2161)     | 230 ( 7419)        |
| W. POINT                        | 98 ( 3032)        | 140 ( 4516)      | 229 ( 7367)       | 37 ( 1194)     | 369 ( 11903)       |
| E. POINT                        | 601 ( 19387)      | 240 ( 7742)      | 337 ( 10871)      | 104 ( 3355)    | 1007 ( 32484)      |
| TOTAL                           | 925 ( 29838)      |                  |                   |                | 1606 ( 51806)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                  |                   |                |                    |
| LAKE HURON                      | 100 ( 3226)       | 17 ( 548)        | 18 ( 581)         | 11 ( 355)      | 100 ( 3226)        |
| W. POINT                        | 25 ( 806)         | 70 ( 2258)       | 99 ( 3194)        | 18 ( 581)      | 71 ( 2290)         |
| E. POINT                        | 302 ( 9742)       | 87 ( 2806)       | 117 ( 3775)       | 29 ( 936)      | 489 ( 15775)       |
| TOTAL                           | 427 ( 13774)      |                  |                   |                | 660 ( 21291)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                  |                   |                |                    |
| LAKE HURON                      | 3140 ( 101290)    | 2904 ( 93677)    | 1975 ( 63710)     | 603 ( 19452)   | 3140 ( 101290)     |
| W. POINT                        | 1004 ( 32516)     | 199 ( 6419)      | 330 ( 10645)      | 92 ( 2968)     | 6490 ( 209355)     |
| E. POINT                        | 770 ( 24839)      | 3103 ( 100096)   | 2305 ( 74355)     | 695 ( 22420)   | 1391 ( 44071)      |
| TOTAL                           | 4918 ( 158645)    |                  |                   |                | 11021 ( 355516)    |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                   |                |                    |
| LAKE HURON                      | 209 ( 6742)       | 21 ( 677)        | 73 ( 2355)        | 24 ( 774)      | 209 ( 6742)        |
| W. POINT                        | 44 ( 1419)        | 199 ( 6419)      | 355 ( 11452)      | 101 ( 3258)    | 162 ( 5225)        |
| E. POINT                        | 877 ( 28290)      | 220 ( 7096)      | 428 ( 13807)      | 125 ( 4032)    | 1332 ( 49419)      |
| TOTAL                           | 1130 ( 36451)     |                  |                   |                | 1903 ( 61386)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                   |                |                    |
| LAKE HURON                      | 2019 ( 94161)     | 214 ( 6903)      | 347 ( 11194)      | 282 ( 9097)    | 2919 ( 94161)      |
| W. POINT                        | 275 ( 8871)       | 74 ( 2387)       | 129 ( 4161)       | 32 ( 1032)     | 118 ( 38065)       |
| E. POINT                        | 272 ( 8774)       | 298 ( 9290)      | 476 ( 15355)      | 314 ( 10129)   | 507 ( 16354)       |
| TOTAL                           | 3466 ( 111406)    |                  |                   |                | 4544 ( 146580)     |
| <b>CHLORIDE</b>                 |                   |                  |                   |                |                    |
| LAKE HURON                      | 91035 ( 2936613)  | 26165 ( 844032)  | 100198 ( 3232194) | 7562 ( 243935) | 91035 ( 2936613)   |
| W. POINT                        | 18466 ( 595677)   | 5193 ( 167516)   | 10357 ( 334097)   | 2221 ( 71645)  | 152391 ( 4915838)  |
| E. POINT                        | 170654 ( 5511544) | 31358 ( 1011548) | 110555 ( 3566291) | 9783 ( 315580) | 108629 ( 6084806)  |
| TOTAL                           | 240359 ( 9044434) |                  |                   |                | 432055 ( 13937257) |
| <b>SILICA</b>                   |                   |                  |                   |                |                    |
| LAKE HURON                      | 15150 ( 488710)   | 6170 ( 199032)   | 3575 ( 115323)    | 1652 ( 53290)  | 15150 ( 488710)    |
| W. POINT                        | 1690 ( 50516)     | 162 ( 5226)      | 311 ( 10032)      | 69 ( 2226)     | 13087 ( 422161)    |
| E. POINT                        | 543 ( 16806)      | 6332 ( 204254)   | 3896 ( 125355)    | 1721 ( 55516)  | 1125 ( 36290)      |
| TOTAL                           | 17423 ( 562032)   |                  |                   |                | 29362 ( 947161)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JUNE, 1972  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 228 ( 7600)       |                 |                  |                | 228 ( 7600)        |
| POINTE                          | 44 ( 1467)        | 44 ( 1467)      | 212 ( 7067)      | 186 ( 6200)    | 486 ( 16201)       |
| POINT                           | 576 ( 19200)      | 129 ( 4300)     | 226 ( 7533)      | 35 ( 1167)     | 966 ( 32200)       |
| TOTAL                           | 848 ( 28267)      | 173 ( 5767)     | 438 ( 14600)     | 221 ( 7367)    | 1680 ( 56001)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURON                      | 98 ( 3267)        |                 |                  |                | 98 ( 3267)         |
| POINTE                          | 18 ( 607)         | 1 ( 33)         | 12 ( 400)        | 31 ( 1033)     | 58 ( 1933)         |
| POINT                           | 289 ( 9633)       | 52 ( 1733)      | 94 ( 3133)       | 18 ( 600)      | 453 ( 15099)       |
| TOTAL                           | 401 ( 13367)      | 53 ( 1766)      | 106 ( 3533)      | 49 ( 1633)     | 609 ( 20299)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURON                      | 3109 ( 103633)    |                 |                  |                | 3109 ( 103633)     |
| POINTE                          | 292 ( 9733)       | 1153 ( 38433)   | 990 ( 33000)     | 504 ( 16800)   | 2939 ( 97966)      |
| POINT                           | 700 ( 24000)      | 178 ( 5933)     | 320 ( 10667)     | 84 ( 2933)     | 1330 ( 44333)      |
| TOTAL                           | 4105 ( 138166)    | 1331 ( 44366)   | 1310 ( 43667)    | 592 ( 19733)   | 7378 ( 245932)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 206 ( 6867)       |                 |                  |                | 206 ( 6867)        |
| POINTE                          | 23 ( 767)         | 0 ( 0)          | 145 ( 4833)      | 57 ( 1900)     | 225 ( 7500)        |
| POINT                           | 844 ( 28133)      | 153 ( 5100)     | 332 ( 11067)     | 89 ( 2967)     | 1418 ( 47267)      |
| TOTAL                           | 1073 ( 35767)     | 153 ( 5100)     | 477 ( 15900)     | 146 ( 4867)    | 1849 ( 61634)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 2891 ( 96367)     |                 |                  |                | 2891 ( 96367)      |
| POINTE                          | 117 ( 3900)       | 89 ( 2967)      | 391 ( 13033)     | 594 ( 19800)   | 1191 ( 39700)      |
| POINT                           | 263 ( 8767)       | 67 ( 2233)      | 124 ( 4133)      | 30 ( 1000)     | 484 ( 16133)       |
| TOTAL                           | 3271 ( 109634)    | 156 ( 5200)     | 515 ( 17166)     | 624 ( 20800)   | 4566 ( 152200)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURON                      | 90147 ( 3004900)  |                 |                  |                | 90147 ( 3004900)   |
| POINTE                          | 4846 ( 160867)    | 11309 ( 376967) | 82781 ( 2759367) | 6979 ( 232633) | 106015 ( 3533838)  |
| POINT                           | 162434 ( 5428000) | 5025 ( 167500)  | 10023 ( 334100)  | 2150 ( 71667)  | 180032 ( 6001067)  |
| TOTAL                           | 257927 ( 8597567) | 16334 ( 544467) | 92804 ( 3093467) | 9129 ( 304300) | 376194 ( 12539801) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURON                      | 15003 ( 500100)   |                 |                  |                | 15003 ( 500100)    |
| POINTE                          | 693 ( 23100)      | 2725 ( 90633)   | 3270 ( 109000)   | 1825 ( 60833)  | 5513 ( 183766)     |
| POINT                           | 564 ( 18800)      | 157 ( 5233)     | 301 ( 10033)     | 67 ( 2233)     | 1089 ( 36299)      |
| TOTAL                           | 16260 ( 542000)   | 2882 ( 96066)   | 3571 ( 119033)   | 1892 ( 63066)  | 28605 ( 920165)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JULY, 1972  
(AVE DAILY LOADS IN KG/DAY)

|                                 | PET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 237 ( 7645)       | 122 ( 3935)     | 40 ( 1290)       | 35 ( 1129)     | 237 ( 7645)        |
| LAKE POWELL                     | 53 ( 1710)        | 136 ( 4387)     | 227 ( 7323)      | 37 ( 1194)     | 250 ( 8064)        |
| POINT                           | 597 ( 19254)      | 258 ( 8322)     | 267 ( 8613)      | 72 ( 2323)     | 997 ( 32162)       |
| TOTAL                           | 887 ( 28613)      |                 |                  |                | 1484 ( 47871)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 102 ( 3290)       | 8 ( 258)        | 7 ( 226)         | 8 ( 258)       | 102 ( 3290)        |
| LAKE POWELL                     | 15 ( 484)         | 66 ( 2124)      | 98 ( 3161)       | 18 ( 581)      | 38 ( 1226)         |
| POINT                           | 299 ( 9653)       | 74 ( 2387)      | 105 ( 3387)      | 26 ( 839)      | 481 ( 15516)       |
| TOTAL                           | 416 ( 13419)      |                 |                  |                | 621 ( 20032)       |
| <b>NITRATE-NITRATE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 3227 ( 104097)    | 2480 ( 80000)   | 788 ( 25419)     | 311 ( 10032)   | 3227 ( 104097)     |
| LAKE POWELL                     | 375 ( 12097)      | 185 ( 5968)     | 330 ( 10645)     | 92 ( 2964)     | 3954 ( 127548)     |
| POINT                           | 770 ( 24839)      | 2665 ( 85968)   | 1114 ( 36064)    | 403 ( 13000)   | 1377 ( 44420)      |
| TOTAL                           | 4372 ( 141033)    |                 |                  |                | 4558 ( 276065)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 214 ( 6903)       | 2 ( 65)         | 53 ( 1710)       | 10 ( 323)      | 214 ( 6903)        |
| LAKE POWELL                     | 24 ( 774)         | 167 ( 5387)     | 340 ( 10968)     | 86 ( 2774)     | 89 ( 2872)         |
| POINT                           | 873 ( 28161)      | 169 ( 5452)     | 393 ( 12678)     | 96 ( 3097)     | 1466 ( 47290)      |
| TOTAL                           | 1111 ( 35838)     |                 |                  |                | 1769 ( 57065)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 3001 ( 96806)     | 232 ( 7484)     | 202 ( 6516)      | 205 ( 6613)    | 3001 ( 96806)      |
| LAKE POWELL                     | 187 ( 4742)       | 70 ( 2258)      | 129 ( 4161)      | 32 ( 1032)     | 786 ( 25355)       |
| POINT                           | 272 ( 8774)       | 302 ( 9742)     | 331 ( 10677)     | 237 ( 7645)    | 503 ( 16225)       |
| TOTAL                           | 3420 ( 110322)    |                 |                  |                | 4290 ( 138366)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 93575 ( 3018548)  | 17737 ( 572161) | 76973 ( 2483000) | 4870 ( 157097) | 93575 ( 3018548)   |
| LAKE POWELL                     | 6974 ( 224968)    | 5193 ( 167516)  | 10357 ( 334097)  | 2221 ( 71645)  | 106554 ( 3437226)  |
| POINT                           | 169221 ( 5458742) | 22930 ( 739677) | 87330 ( 2817097) | 7091 ( 228742) | 186992 ( 6032000)  |
| TOTAL                           | 269770 ( 8702258) |                 |                  |                | 387121 ( 12487774) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 15573 ( 502355)   | 4914 ( 158516)  | 2107 ( 67968)    | 1059 ( 34161)  | 15573 ( 502355)    |
| LAKE POWELL                     | 861 ( 2774)       | 162 ( 5226)     | 311 ( 10032)     | 69 ( 2226)     | 1241 ( 39849)      |
| POINT                           | 543 ( 1806)       | 5076 ( 163742)  | 2418 ( 78000)    | 1128 ( 36347)  | 1125 ( 36290)      |
| TOTAL                           | 17017 ( 548935)   |                 |                  |                | 25639 ( 827064)    |

# BASEIN LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1972 (AVE DAILY LOADS IN KG/DAY)

|                                 | GET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 242 ( 7606)       | 1 ( 32)         | 18 ( 581)        | 22 ( 710)      | 242 ( 7606)        |
| PUN POINT                       | 50 ( 1613)        |                 | 197 ( 6355)      | 34 ( 1097)     | 91 ( 2936)         |
| PUN POINT                       | 599 ( 19323)      | 93 ( 3006)      | 215 ( 6936)      | 56 ( 1807)     | 923 ( 29775)       |
| TOTAL                           | 491 ( 24742)      | 94 ( 3032)      |                  |                | 1256 ( 40517)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 104 ( 3355)       | 2 ( 65)         | 6 ( 194)         | 5 ( 161)       | 104 ( 3355)        |
| PUN POINT                       | 14 ( 516)         |                 | 89 ( 2871)       | 17 ( 548)      | 29 ( 936)          |
| PUN POINT                       | 300 ( 9677)       | 42 ( 1355)      | 95 ( 3065)       | 22 ( 709)      | 448 ( 14511)       |
| TOTAL                           | 420 ( 13588)      | 44 ( 1426)      |                  |                | 581 ( 19742)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURON                      | 3300 ( 106452)    | 487 ( 15710)    | 395 ( 12742)     | 133 ( 4290)    | 3300 ( 106452)     |
| PUN POINT                       | 407 ( 13129)      | 184 ( 5935)     | 330 ( 10645)     | 92 ( 2964)     | 1422 ( 45871)      |
| PUN POINT                       | 749 ( 24806)      | 671 ( 21645)    | 725 ( 23587)     | 225 ( 7258)    | 1375 ( 44358)      |
| TOTAL                           | 4476 ( 145387)    |                 |                  |                | 6097 ( 196677)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 219 ( 7065)       | 1 ( 32)         | 13 ( 419)        | 2 ( 65)        | 219 ( 7065)        |
| PUN POINT                       | 26 ( 839)         |                 | 311 ( 10032)     | 78 ( 2516)     | 42 ( 1355)         |
| PUN POINT                       | 475 ( 22226)      | 143 ( 4613)     | 324 ( 10451)     | 80 ( 2581)     | 1407 ( 45387)      |
| TOTAL                           | 1120 ( 36130)     | 144 ( 4645)     |                  |                | 1668 ( 53807)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 3069 ( 99000)     | 35 ( 1120)      | 94 ( 3161)       | 143 ( 4613)    | 3069 ( 99000)      |
| PUN POINT                       | 145 ( 4677)       | 69 ( 2226)      | 117 ( 3774)      | 32 ( 1032)     | 421 ( 13500)       |
| PUN POINT                       | 272 ( 8774)       | 104 ( 3355)     | 215 ( 6935)      | 175 ( 5645)    | 490 ( 15806)       |
| TOTAL                           | 3486 ( 112451)    |                 |                  |                | 3980 ( 128386)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURON                      | 95693 ( 3086871)  | 7681 ( 247774)  | 46514 ( 1500452) | 3366 ( 108581) | 95693 ( 3086871)   |
| PUN POINT                       | 5496 ( 193419)    | 5193 ( 167516)  | 10357 ( 334097)  | 2221 ( 71645)  | 63557 ( 2050226)   |
| PUN POINT                       | 167937 ( 5417373) | 12874 ( 415290) | 56871 ( 1834549) | 5587 ( 180226) | 185708 ( 590581)   |
| TOTAL                           | 269626 ( 8697613) |                 |                  |                | 344958 ( 11127678) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURON                      | 15926 ( 513742)   | 1255 ( 40484)   | 1072 ( 34581)    | 607 ( 19581)   | 15926 ( 513742)    |
| PUN POINT                       | 493 ( 28806)      | 162 ( 5226)     | 311 ( 10032)     | 69 ( 2226)     | 3427 ( 123452)     |
| PUN POINT                       | 583 ( 18806)      | 1017 ( 45710)   | 1383 ( 44613)    | 676 ( 21807)   | 1125 ( 36290)      |
| TOTAL                           | 17402 ( 561354)   |                 |                  |                | 20878 ( 673488)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1972  
(AVERAGE DAILY LOADS IN KG/DAY)

|                                  | DET/ST. CLK. BASIN | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|----------------------------------|--------------------|------------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>          |                    |                  |                  |                |                    |
| LAKE MURPHY                      | 235 ( 7833)        | 654 ( 21800)     | 77 ( 2567)       | 17 ( 567)      | 235 ( 7833)        |
| MUN. POINT                       | 33 ( 1100)         | 134 ( 4467)      | 222 ( 7400)      | 35 ( 1167)     | 781 ( 26034)       |
| POLY. T                          | 577 ( 19233)       | 746 ( 25267)     | 299 ( 9967)      | 52 ( 1734)     | 968 ( 32267)       |
| TOTAL                            | 845 ( 28166)       |                  |                  |                | 1984 ( 66134)      |
| <b>ORTHOPHOSPHORUS</b>           |                    |                  |                  |                |                    |
| LAKE MURPHY                      | 102 ( 3400)        | 54 ( 1800)       | 14 ( 467)        | 3 ( 100)       | 102 ( 3400)        |
| MUN. POINT                       | 9 ( 300)           | 67 ( 2233)       | 96 ( 3200)       | 17 ( 567)      | 80 ( 2667)         |
| POLY. T                          | 290 ( 9667)        | 121 ( 4033)      | 110 ( 3667)      | 20 ( 667)      | 470 ( 15667)       |
| TOTAL                            | 401 ( 13367)       |                  |                  |                | 652 ( 21734)       |
| <b>NITRATE-NITRITIC NITROGEN</b> |                    |                  |                  |                |                    |
| LAKE MURPHY                      | 3208 ( 106933)     | 5305 ( 176833)   | 1340 ( 44667)    | 87 ( 2900)     | 3208 ( 106933)     |
| MUN. POINT                       | 131 ( 4367)        | 181 ( 6033)      | 320 ( 10667)     | 88 ( 2933)     | 683 ( 228767)      |
| POLY. T                          | 744 ( 24800)       | 5406 ( 182866)   | 1660 ( 55334)    | 175 ( 5833)    | 1333 ( 44033)      |
| TOTAL                            | 4083 ( 136100)     |                  |                  |                | 11404 ( 380133)    |
| <b>AMMONIA-NITROGEN</b>          |                    |                  |                  |                |                    |
| LAKE MURPHY                      | 213 ( 7100)        | 7 ( 233)         | 31 ( 1033)       | 2 ( 67)        | 213 ( 7100)        |
| MUN. POINT                       | 17 ( 567)          | 202 ( 6733)      | 341 ( 11367)     | 76 ( 2533)     | 57 ( 1900)         |
| POLY. T                          | 843 ( 28100)       | 209 ( 6966)      | 372 ( 12400)     | 78 ( 2600)     | 1462 ( 48733)      |
| TOTAL                            | 1073 ( 35767)      |                  |                  |                | 1732 ( 57733)      |
| <b>ORGANIC NITROGEN</b>          |                    |                  |                  |                |                    |
| LAKE MURPHY                      | 2983 ( 99433)      | 673 ( 22433)     | 316 ( 10533)     | 147 ( 4900)    | 2983 ( 99433)      |
| MUN. POINT                       | 94 ( 3267)         | 68 ( 2267)       | 124 ( 4133)      | 30 ( 1000)     | 1238 ( 41133)      |
| POLY. T                          | 263 ( 8767)        | 741 ( 24700)     | 444 ( 14666)     | 177 ( 5900)    | 485 ( 16167)       |
| TOTAL                            | 3340 ( 111467)     |                  |                  |                | 4702 ( 156733)     |
| <b>CHLORIDE</b>                  |                    |                  |                  |                |                    |
| LAKE MURPHY                      | 93016 ( 3109533)   | 31226 ( 1040867) | 74887 ( 2496233) | 3081 ( 102700) | 93016 ( 3109533)   |
| MUN. POINT                       | 5622 ( 187400)     | 5025 ( 167506)   | 10023 ( 334100)  | 2150 ( 71667)  | 114816 ( 3827200)  |
| POLY. T                          | 165347 ( 5511547)  | 36251 ( 1208367) | 84910 ( 2830333) | 5231 ( 174367) | 182545 ( 6084834)  |
| TOTAL                            | 263985 ( 8799500)  |                  |                  |                | 390377 ( 13012567) |
| <b>SILICA</b>                    |                    |                  |                  |                |                    |
| LAKE MURPHY                      | 15480 ( 516000)    | 10169 ( 338967)  | 2983 ( 99433)    | 664 ( 22133)   | 15480 ( 516000)    |
| MUN. POINT                       | 576 ( 19200)       | 157 ( 5233)      | 301 ( 10033)     | 67 ( 2233)     | 14392 ( 479733)    |
| POLY. T                          | 544 ( 18800)       | 10326 ( 344200)  | 3284 ( 109466)   | 731 ( 24366)   | 1089 ( 36299)      |
| TOTAL                            | 16620 ( 554000)    |                  |                  |                | 30961 ( 1032032)   |

# RASIN LOADINGS IN MEGRIC TONS PER MONTH FOR OCTOBER, 1972 (AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLIR      | NASIN | WESTERN         | NASIN | CENTRAL          | NASIN | EASTERN        | BASIN | TOTAL              |
|---------------------------------|-------------------|-------|-----------------|-------|------------------|-------|----------------|-------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |       |                 |       |                  |       |                |       |                    |
| LAKE MURUM                      | 246 ( 7935)       |       | 220 ( 7097)     |       | 67 ( 2161)       |       | 38 ( 1226)     |       | 246 ( 7935)        |
| NO. POINT                       | 58 ( 1871)        |       | 139 ( 4484)     |       | 221 ( 7129)      |       | 37 ( 1194)     |       | 383 ( 12355)       |
| POINT                           | 606 ( 19355)      |       | 359 ( 11581)    |       | 284 ( 9290)      |       | 75 ( 2420)     |       | 997 ( 32162)       |
| TOTAL                           | 908 ( 29141)      |       |                 |       |                  |       |                |       | 1626 ( 52452)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |       |                 |       |                  |       |                |       |                    |
| LAKE MURUM                      | 106 ( 3419)       |       | 22 ( 710)       |       | 10 ( 323)        |       | 8 ( 258)       |       | 106 ( 3419)        |
| NO. POINT                       | 16 ( 516)         |       | 69 ( 2226)      |       | 99 ( 3194)       |       | 18 ( 581)      |       | 56 ( 1807)         |
| POINT                           | 501 ( 9710)       |       | 91 ( 2936)      |       | 109 ( 3517)      |       | 26 ( 839)      |       | 447 ( 15711)       |
| TOTAL                           | 423 ( 13645)      |       |                 |       |                  |       |                |       | 649 ( 20937)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |       |                 |       |                  |       |                |       |                    |
| LAKE MURUM                      | 3359 ( 108355)    |       | 3344 ( 109161)  |       | 1300 ( 41935)    |       | 314 ( 10129)   |       | 3359 ( 108355)     |
| NO. POINT                       | 895 ( 15968)      |       | 187 ( 6032)     |       | 330 ( 10645)     |       | 92 ( 2968)     |       | 5093 ( 177193)     |
| POINT                           | 770 ( 24839)      |       | 3571 ( 115193)  |       | 1630 ( 52580)    |       | 406 ( 13097)   |       | 1379 ( 44844)      |
| TOTAL                           | 4624 ( 149162)    |       |                 |       |                  |       |                |       | 10231 ( 330032)    |
| <b>AMMONIA-NITROGEN</b>         |                   |       |                 |       |                  |       |                |       |                    |
| LAKE MURUM                      | 223 ( 7194)       |       | 4 ( 129)        |       | 56 ( 1806)       |       | 21 ( 677)      |       | 223 ( 7194)        |
| NO. POINT                       | 29 ( 935)         |       | 194 ( 6258)     |       | 348 ( 11226)     |       | 88 ( 2839)     |       | 110 ( 3547)        |
| POINT                           | 876 ( 28258)      |       | 198 ( 6387)     |       | 404 ( 13032)     |       | 109 ( 3516)    |       | 1506 ( 48581)      |
| TOTAL                           | 1128 ( 36387)     |       |                 |       |                  |       |                |       | 1839 ( 59322)      |
| <b>ORGANIC NITROGEN</b>         |                   |       |                 |       |                  |       |                |       |                    |
| LAKE MURUM                      | 3123 ( 100742)    |       | 326 ( 10516)    |       | 252 ( 8129)      |       | 253 ( 8161)    |       | 3123 ( 100742)     |
| NO. POINT                       | 191 ( 6161)       |       | 70 ( 2258)      |       | 129 ( 4161)      |       | 32 ( 1032)     |       | 1022 ( 32967)      |
| POINT                           | 272 ( 8774)       |       | 396 ( 12774)    |       | 381 ( 12290)     |       | 285 ( 9193)    |       | 503 ( 16225)       |
| TOTAL                           | 3586 ( 115677)    |       |                 |       |                  |       |                |       | 4644 ( 149934)     |
| <b>CHLORIDE</b>                 |                   |       |                 |       |                  |       |                |       |                    |
| LAKE MURUM                      | 97386 ( 3141484)  |       | 23789 ( 767387) |       | 70494 ( 2274000) |       | 5432 ( 175226) |       | 97386 ( 3141484)   |
| NO. POINT                       | 9164 ( 295613)    |       | 5193 ( 167516)  |       | 10357 ( 334097)  |       | 2221 ( 71645)  |       | 108879 ( 3512226)  |
| POINT                           | 170858 ( 5511548) |       | 28982 ( 934903) |       | 80851 ( 2608097) |       | 7653 ( 246871) |       | 188629 ( 6084806)  |
| TOTAL                           | 277408 ( 8948645) |       |                 |       |                  |       |                |       | 394894 ( 12738516) |
| <b>SILICA</b>                   |                   |       |                 |       |                  |       |                |       |                    |
| LAKE MURUM                      | 16207 ( 522806)   |       | 6753 ( 217834)  |       | 2815 ( 90806)    |       | 1164 ( 37548)  |       | 16207 ( 522806)    |
| NO. POINT                       | 1165 ( 37581)     |       | 162 ( 5226)     |       | 311 ( 10032)     |       | 69 ( 2226)     |       | 11897 ( 383774)    |
| POINT                           | 583 ( 18806)      |       | 6915 ( 223065)  |       | 3126 ( 100838)   |       | 1233 ( 39774)  |       | 1125 ( 36290)      |
| TOTAL                           | 17955 ( 570193)   |       |                 |       |                  |       |                |       | 29229 ( 942870)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1972  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLK. BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 235 ( 7833)        | 2063 ( 68767)    | 372 ( 12400)      | 77 ( 2567)      | 235 ( 7833)        |
| NO. POINT                       | 154 ( 5133)        | 136 ( 4533)      | 233 ( 7767)       | 35 ( 1167)      | 2666 ( 88667)      |
| POINT                           | 587 ( 19567)       | 2199 ( 73300)    | 605 ( 20167)      | 112 ( 3734)     | 991 ( 33034)       |
| TOTAL                           | 976 ( 32533)       |                  |                   |                 | 3892 ( 129734)     |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 102 ( 3400)        | 190 ( 6333)      | 68 ( 2267)        | 13 ( 433)       | 102 ( 3400)        |
| NO. POINT                       | 48 ( 1600)         | 69 ( 2300)       | 106 ( 3533)       | 18 ( 600)       | 319 ( 10633)       |
| POINT                           | 296 ( 9867)        | 259 ( 8633)      | 174 ( 5800)       | 31 ( 1033)      | 489 ( 16300)       |
| TOTAL                           | 446 ( 14867)       |                  |                   |                 | 910 ( 30333)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE HURON                      | 3208 ( 106933)     | 13031 ( 434367)  | 5923 ( 197433)    | 662 ( 22067)    | 3208 ( 106933)     |
| NO. POINT                       | 2016 ( 67200)      | 193 ( 6433)      | 320 ( 10667)      | 88 ( 2933)      | 21632 ( 721067)    |
| POINT                           | 745 ( 24833)       | 13224 ( 440800)  | 6245 ( 208100)    | 750 ( 25000)    | 1346 ( 44866)      |
| TOTAL                           | 5969 ( 198966)     |                  |                   |                 | 26186 ( 872866)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 213 ( 7100)        | 142 ( 4733)      | 253 ( 8433)       | 38 ( 1267)      | 213 ( 7100)        |
| NO. POINT                       | 98 ( 3267)         | 252 ( 8400)      | 378 ( 12600)      | 101 ( 3367)     | 531 ( 17700)       |
| POINT                           | 455 ( 28500)       | 394 ( 13133)     | 631 ( 21033)      | 139 ( 4634)     | 1546 ( 52867)      |
| TOTAL                           | 1166 ( 38867)      |                  |                   |                 | 2330 ( 77667)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 2983 ( 99433)      | 1480 ( 49333)    | 997 ( 33233)      | 364 ( 12133)    | 2983 ( 99433)      |
| NO. POINT                       | 500 ( 16667)       | 72 ( 2400)       | 124 ( 4133)       | 30 ( 1000)      | 3341 ( 111366)     |
| POINT                           | 263 ( 8767)        | 1552 ( 51733)    | 1121 ( 37366)     | 394 ( 13133)    | 489 ( 16300)       |
| TOTAL                           | 3746 ( 124867)     |                  |                   |                 | 6813 ( 227099)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE HURON                      | 93016 ( 3100533)   | 69657 ( 2321900) | 152728 ( 5090933) | 7993 ( 266433)  | 93016 ( 3100533)   |
| NO. POINT                       | 40914 ( 1363400)   | 5025 ( 167500)   | 10023 ( 334100)   | 2150 ( 71667)   | 271292 ( 9043066)  |
| POINT                           | 165307 ( 5511567)  | 74682 ( 2489400) | 162751 ( 5425033) | 10143 ( 338100) | 182545 ( 608834)   |
| TOTAL                           | 299277 ( 9975900)  |                  |                   |                 | 546853 ( 18228433) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE HURON                      | 15480 ( 516000)    | 25069 ( 835633)  | 9299 ( 309967)    | 1910 ( 63667)   | 15480 ( 516000)    |
| NO. POINT                       | 3151 ( 105033)     | 157 ( 5233)      | 301 ( 10033)      | 67 ( 2233)      | 39429 ( 1314300)   |
| POINT                           | 564 ( 18900)       | 25226 ( 840866)  | 9600 ( 320000)    | 1971 ( 65900)   | 1089 ( 36299)      |
| TOTAL                           | 19195 ( 639333)    |                  |                   |                 | 55998 ( 1866599)   |

# WASTW. LOADINGS IN METRIC TONS PER MONTH FOR DECEMBER 1972 (AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLY BASIN  | WESTLWN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 238 ( 7677)        |                  |                   |                 | 238 ( 7677)        |
| WGN POINT                       | 240 ( 7742)        | 967 ( 31194)     | 338 ( 10903)      | 121 ( 3903)     | 1466 ( 53742)      |
| POINT                           | 611 ( 19710)       | 141 ( 4548)      | 240 ( 7742)       | 37 ( 1194)      | 1029 ( 33194)      |
| TOTAL                           | 1049 ( 35129)      | 1108 ( 35742)    | 578 ( 18645)      | 158 ( 5097)     | 2933 ( 94613)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 103 ( 3323)        |                  |                   |                 | 103 ( 3323)        |
| WGN POINT                       | 67 ( 2161)         | 107 ( 3452)      | 64 ( 2065)        | 14 ( 452)       | 252 ( 8130)        |
| POINT                           | 305 ( 9839)        | 71 ( 2290)       | 113 ( 3645)       | 18 ( 581)       | 507 ( 16355)       |
| TOTAL                           | 475 ( 15323)       | 178 ( 5742)      | 177 ( 5710)       | 32 ( 1033)      | 862 ( 27808)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 3257 ( 105065)     |                  |                   |                 | 3257 ( 105065)     |
| WGN POINT                       | 3162 ( 102406)     | 8954 ( 28839)    | 4772 ( 15935)     | 856 ( 27613)    | 17744 ( 572387)    |
| POINT                           | 779 ( 24859)       | 201 ( 6484)      | 330 ( 10645)      | 92 ( 2968)      | 1393 ( 44936)      |
| TOTAL                           | 7199 ( 231964)     | 9155 ( 295323)   | 5102 ( 164580)    | 948 ( 30581)    | 22394 ( 722388)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 216 ( 6968)        |                  |                   |                 | 216 ( 6968)        |
| WGN POINT                       | 145 ( 4677)        | 42 ( 1355)       | 251 ( 8097)       | 52 ( 1677)      | 490 ( 15806)       |
| POINT                           | 887 ( 28613)       | 259 ( 8355)      | 394 ( 12710)      | 105 ( 3387)     | 1445 ( 53063)      |
| TOTAL                           | 1248 ( 40258)      | 301 ( 9710)      | 645 ( 20807)      | 157 ( 5064)     | 2351 ( 75639)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 3024 ( 97677)      |                  |                   |                 | 3024 ( 97677)      |
| WGN POINT                       | 769 ( 24406)       | 914 ( 29484)     | 973 ( 31387)      | 474 ( 15290)    | 3130 ( 100967)     |
| POINT                           | 272 ( 8774)        | 76 ( 2452)       | 129 ( 4161)       | 32 ( 1032)      | 509 ( 16419)       |
| TOTAL                           | 4069 ( 131257)     | 990 ( 31936)     | 1102 ( 35548)     | 506 ( 16322)    | 6667 ( 215063)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 94422 ( 3045871)   |                  |                   |                 | 94422 ( 3045871)   |
| WGN POINT                       | 52939 ( 1707710)   | 55954 ( 180968)  | 135708 ( 4377677) | 9558 ( 308323)  | 254159 ( 8198678)  |
| POINT                           | 170858 ( 5511548)  | 5193 ( 167516)   | 10357 ( 334097)   | 2221 ( 71645)   | 188629 ( 608806)   |
| TOTAL                           | 318219 ( 10265129) | 61147 ( 1972484) | 146065 ( 4711774) | 11779 ( 379968) | 537210 ( 17329355) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 15714 ( 506903)    |                  |                   |                 | 15714 ( 506903)    |
| WGN POINT                       | 4599 ( 148355)     | 16542 ( 533613)  | 8267 ( 266677)    | 2565 ( 82742)   | 31973 ( 1031367)   |
| POINT                           | 583 ( 18806)       | 162 ( 5226)      | 311 ( 10032)      | 69 ( 2226)      | 1125 ( 36290)      |
| TOTAL                           | 20896 ( 674064)    | 16704 ( 538839)  | 8578 ( 276709)    | 2634 ( 84968)   | 48412 ( 1574580)   |

PASTA LOADINGS IN METRIC TONS PER 100 MT FUM JANUARY, 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLK BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 211 ( 6806)        |                  |                   |                 | 211 ( 6806)        |
| ADP POINT                       | 417 ( 13452)       | 255 ( 8226)      | 112 ( 3613)       | 117 ( 3774)     | 901 ( 29065)       |
| POINT                           | 707 ( 22806)       | 112 ( 3613)      | 194 ( 6258)       | 38 ( 1226)      | 1051 ( 33903)      |
| TOTAL                           | 1335 ( 43064)      | 367 ( 11839)     | 306 ( 9471)       | 155 ( 5000)     | 2163 ( 69774)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 87 ( 2806)         |                  |                   |                 | 87 ( 2806)         |
| ADP POINT                       | 94 ( 3032)         | 67 ( 2161)       | 19 ( 613)         | 21 ( 677)       | 201 ( 6483)        |
| POINT                           | 353 ( 11387)       | 55 ( 1774)       | 82 ( 2645)        | 18 ( 581)       | 508 ( 16387)       |
| TOTAL                           | 534 ( 17225)       | 122 ( 3935)      | 101 ( 3258)       | 39 ( 1258)      | 796 ( 25676)       |
| <b>NITRATE-NITRICE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 3907 ( 126032)     |                  |                   |                 | 3907 ( 126032)     |
| ADP POINT                       | 4209 ( 135774)     | 4181 ( 134871)   | 1553 ( 50097)     | 940 ( 30323)    | 10883 ( 351065)    |
| POINT                           | 906 ( 29226)       | 204 ( 6581)      | 330 ( 10445)      | 93 ( 3000)      | 1333 ( 44452)      |
| TOTAL                           | 9022 ( 291032)     | 4385 ( 141452)   | 1883 ( 60742)     | 1033 ( 33323)   | 16323 ( 526549)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 259 ( 8355)        |                  |                   |                 | 259 ( 8355)        |
| ADP POINT                       | 247 ( 7964)        | 182 ( 5871)      | 107 ( 3452)       | 40 ( 1290)      | 576 ( 18581)       |
| POINT                           | 1051 ( 33903)      | 258 ( 8323)      | 361 ( 11645)      | 111 ( 3581)     | 1781 ( 57452)      |
| TOTAL                           | 1557 ( 50226)      | 440 ( 14194)     | 468 ( 15097)      | 151 ( 4871)     | 2616 ( 84188)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 3620 ( 123226)     |                  |                   |                 | 3620 ( 123226)     |
| ADP POINT                       | 1152 ( 37161)      | 640 ( 20645)     | 399 ( 12871)      | 398 ( 12839)    | 2589 ( 83516)      |
| POINT                           | 320 ( 10323)       | 75 ( 2419)       | 129 ( 4161)       | 32 ( 1032)      | 556 ( 17935)       |
| TOTAL                           | 5292 ( 170710)     | 715 ( 23064)     | 528 ( 17032)      | 430 ( 13871)    | 6965 ( 224677)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 118673 ( 3828161)  |                  |                   |                 | 118673 ( 3828161)  |
| ADP POINT                       | 57377 ( 1850871)   | 46139 ( 1484355) | 102899 ( 3319323) | 12053 ( 388806) | 218468 ( 7047355)  |
| POINT                           | 170564 ( 5631097)  | 5183 ( 167194)   | 10491 ( 338419)   | 2247 ( 72484)   | 192895 ( 6209194)  |
| TOTAL                           | 350614 ( 11131129) | 51322 ( 1655549) | 113390 ( 3657742) | 14300 ( 461290) | 529626 ( 17084710) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 15503 ( 500097)    |                  |                   |                 | 15503 ( 500097)    |
| ADP POINT                       | 6038 ( 194774)     | 8255 ( 266290)   | 3465 ( 111774)    | 2528 ( 81548)   | 20286 ( 654386)    |
| POINT                           | 684 ( 22129)       | 162 ( 5226)      | 311 ( 10032)      | 70 ( 2258)      | 1229 ( 39645)      |
| TOTAL                           | 22227 ( 717000)    | 8417 ( 271516)   | 3776 ( 121406)    | 2598 ( 83806)   | 37018 ( 1194128)   |

WAST... LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|------------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                  |                |                    |
| LAKE MURDOCK                    | 185 ( 6607)        | 107 ( 3821)      | 91 ( 3250)       | 73 ( 2607)     | 185 ( 6607)        |
| SOL. POINT                      | 117 ( 4174)        | 97 ( 3464)       | 177 ( 6321)      | 34 ( 1214)     | 388 ( 13657)       |
| POINT                           | 628 ( 22429)       | 204 ( 7285)      | 268 ( 9571)      | 107 ( 3821)    | 936 ( 33428)       |
| TOTAL                           | 930 ( 33215)       |                  |                  |                | 1509 ( 53892)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                  |                |                    |
| LAKE MURDOCK                    | 76 ( 2718)         | 31 ( 1107)       | 15 ( 536)        | 14 ( 500)      | 76 ( 2718)         |
| SOL. POINT                      | 31 ( 1107)         | 49 ( 1750)       | 79 ( 2821)       | 16 ( 571)      | 91 ( 3250)         |
| POINT                           | 315 ( 11250)       | 40 ( 2857)       | 94 ( 3357)       | 30 ( 1071)     | 459 ( 16392)       |
| TOTAL                           | 422 ( 15071)       |                  |                  |                | 626 ( 22356)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                    |                  |                  |                |                    |
| LAKE MURDOCK                    | 3417 ( 122036)     | 2418 ( 86357)    | 1124 ( 40143)    | 586 ( 20929)   | 3417 ( 122036)     |
| SOL. POINT                      | 1312 ( 46857)      | 178 ( 6357)      | 298 ( 10643)     | 84 ( 3000)     | 5440 ( 194286)     |
| POINT                           | 416 ( 29214)       | 2596 ( 92714)    | 1422 ( 50786)    | 670 ( 23929)   | 1378 ( 49214)      |
| TOTAL                           | 5547 ( 194107)     |                  |                  |                | 10235 ( 365536)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                  |                |                    |
| LAKE MURDOCK                    | 227 ( 8107)        | 53 ( 1893)       | 93 ( 3321)       | 23 ( 821)      | 227 ( 8107)        |
| SOL. POINT                      | 76 ( 2500)         | 230 ( 8214)      | 333 ( 11893)     | 95 ( 3393)     | 239 ( 8535)        |
| POINT                           | 941 ( 33607)       | 283 ( 10107)     | 426 ( 15214)     | 118 ( 4214)    | 1599 ( 57107)      |
| TOTAL                           | 1238 ( 44214)      |                  |                  |                | 2065 ( 73749)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                  |                |                    |
| LAKE MURDOCK                    | 3341 ( 119321)     | 306 ( 10929)     | 371 ( 13250)     | 269 ( 9607)    | 3341 ( 119321)     |
| SOL. POINT                      | 356 ( 12714)       | 67 ( 2393)       | 117 ( 4179)      | 28 ( 1000)     | 1302 ( 46500)      |
| POINT                           | 289 ( 10321)       | 373 ( 13322)     | 484 ( 17429)     | 297 ( 10607)   | 501 ( 17893)       |
| TOTAL                           | 3946 ( 142356)     |                  |                  |                | 5144 ( 183714)     |
| <b>CHLORIDE</b>                 |                    |                  |                  |                |                    |
| LAKE MURDOCK                    | 103778 ( 3706357)  | 28323 ( 1011536) | 83004 ( 2964429) | 7878 ( 281357) | 103778 ( 3706357)  |
| SOL. POINT                      | 18594 ( 664071)    | 4681 ( 167179)   | 9478 ( 338429)   | 2030 ( 72500)  | 137799 ( 4921393)  |
| POINT                           | 157671 ( 5631107)  | 33004 ( 1178715) | 92480 ( 3302858) | 9908 ( 353657) | 173858 ( 6209215)  |
| TOTAL                           | 280043 ( 10001535) |                  |                  |                | 415435 ( 14839465) |
| <b>SILICA</b>                   |                    |                  |                  |                |                    |
| LAKE MURDOCK                    | 13557 ( 484179)    | 4778 ( 170643)   | 2917 ( 104179)   | 1538 ( 54929)  | 13557 ( 484179)    |
| SOL. POINT                      | 2106 ( 75214)      | 146 ( 5214)      | 281 ( 10036)     | 63 ( 2250)     | 11339 ( 404965)    |
| POINT                           | 420 ( 22143)       | 4924 ( 175857)   | 3194 ( 114215)   | 1601 ( 57179)  | 1110 ( 39443)      |
| TOTAL                           | 16243 ( 581536)    |                  |                  |                | 26006 ( 928767)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH, 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                  | DET/ST. CLR BASIN  | WESTERN BASIN     | CENTRAL BASIN     | EASTERN BASIN    | TOTAL              |
|----------------------------------|--------------------|-------------------|-------------------|------------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>          |                    |                   |                   |                  |                    |
| LAKE MURDO                       | 211 ( 6806)        | 1317 ( 42884)     | 695 ( 22419)      | 556 ( 17935)     | 211 ( 6806)        |
| WON. POINT                       | 989 ( 31903)       | 114 ( 3677)       | 198 ( 6387)       | 38 ( 1226)       | 3557 ( 114741)     |
| POINT                            | 707 ( 22806)       | 114 ( 3677)       | 198 ( 6387)       | 38 ( 1226)       | 1057 ( 34096)      |
| TOTAL                            | 1907 ( 61515)      | 1431 ( 46161)     | 893 ( 28806)      | 594 ( 19161)     | 4825 ( 155643)     |
| <b>ORTHO PHOSPHORUS</b>          |                    |                   |                   |                  |                    |
| LAKE MURDO                       | 87 ( 2806)         | 234 ( 7508)       | 117 ( 3778)       | 61 ( 1968)       | 87 ( 2806)         |
| WON. POINT                       | 203 ( 6508)        | 55 ( 1774)        | 100 ( 3226)       | 19 ( 613)        | 615 ( 19838)       |
| POINT                            | 354 ( 11419)       | 289 ( 9322)       | 217 ( 7000)       | 80 ( 2581)       | 528 ( 17032)       |
| TOTAL                            | 644 ( 20733)       | 578 ( 18604)      | 434 ( 13998)      | 160 ( 5161)      | 1230 ( 39676)      |
| <b>NITRATE-NITRITIC NITROGEN</b> |                    |                   |                   |                  |                    |
| LAKE MURDO                       | 3907 ( 126032)     | 10301 ( 332290)   | 5314 ( 171548)    | 2390 ( 77097)    | 3907 ( 126032)     |
| WON. POINT                       | 8294 ( 267581)     | 204 ( 6581)       | 330 ( 10645)      | 93 ( 3000)       | 26304 ( 848516)    |
| POINT                            | 904 ( 29226)       | 10505 ( 338871)   | 5648 ( 182193)    | 2483 ( 80097)    | 1533 ( 49452)      |
| TOTAL                            | 13104 ( 422839)    | 10505 ( 338871)   | 5648 ( 182193)    | 2483 ( 80097)    | 31744 ( 1024000)   |
| <b>AMMONIA NITROGEN</b>          |                    |                   |                   |                  |                    |
| LAKE MURDO                       | 259 ( 8355)        | 507 ( 16355)      | 535 ( 17258)      | 160 ( 5161)      | 259 ( 8355)        |
| WON. POINT                       | 513 ( 17516)       | 260 ( 8387)       | 405 ( 13065)      | 111 ( 3581)      | 1745 ( 56290)      |
| POINT                            | 1062 ( 34258)      | 767 ( 24742)      | 940 ( 30323)      | 271 ( 8742)      | 1838 ( 59291)      |
| TOTAL                            | 1864 ( 60129)      | 1534 ( 49484)     | 1475 ( 47646)     | 542 ( 17484)     | 3842 ( 123936)     |
| <b>ORGANIC NITROGEN</b>          |                    |                   |                   |                  |                    |
| LAKE MURDO                       | 3820 ( 123226)     | 2271 ( 73258)     | 1617 ( 52161)     | 1058 ( 34129)    | 3820 ( 123226)     |
| WON. POINT                       | 2414 ( 77871)      | 75 ( 2419)        | 129 ( 4161)       | 32 ( 1032)       | 7360 ( 237419)     |
| POINT                            | 320 ( 10323)       | 2346 ( 75677)     | 1746 ( 56322)     | 1090 ( 35161)    | 556 ( 17935)       |
| TOTAL                            | 6554 ( 211420)     | 2652 ( 85790)     | 3592 ( 116144)    | 1280 ( 41482)    | 11736 ( 378580)    |
| <b>CHLORIDE</b>                  |                    |                   |                   |                  |                    |
| LAKE MURDO                       | 118673 ( 3826161)  | 88707 ( 2861516)  | 143692 ( 4635226) | 25677 ( 826290)  | 118673 ( 3826161)  |
| WON. POINT                       | 127952 ( 4127484)  | 5183 ( 167194)    | 10491 ( 338419)   | 2247 ( 72484)    | 386028 ( 12452516) |
| POINT                            | 174564 ( 5631097)  | 93894 ( 3028710)  | 154143 ( 4973645) | 27924 ( 900774)  | 192085 ( 6209194)  |
| TOTAL                            | 421189 ( 13586742) | 193984 ( 6172426) | 308228 ( 9713490) | 50648 ( 1631548) | 697186 ( 22489671) |
| <b>SILICA</b>                    |                    |                   |                   |                  |                    |
| LAKE MURDO                       | 15503 ( 500097)    | 17896 ( 577290)   | 12086 ( 389471)   | 6618 ( 213484)   | 15503 ( 500097)    |
| WON. POINT                       | 10404 ( 348516)    | 162 ( 5220)       | 311 ( 10032)      | 70 ( 2258)       | 47404 ( 1529161)   |
| POINT                            | 684 ( 22129)       | 18058 ( 582516)   | 12397 ( 399903)   | 6688 ( 215742)   | 1229 ( 39645)      |
| TOTAL                            | 26991 ( 870762)    | 19056 ( 6172426)  | 12427 ( 399903)   | 7356 ( 239084)   | 64136 ( 2068903)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1973  
(AVE. DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CL. BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 206 ( 6867)        | 237 ( 7900)      | 232 ( 7733)       | 165 ( 5500)     | 206 ( 6867)        |
| SON POINT                       | 184 ( 6267)        | 104 ( 3600)      | 192 ( 6400)       | 36 ( 1200)      | 822 ( 27800)       |
| PONT                            | 680 ( 22667)       | 345 ( 11500)     | 424 ( 14133)      | 201 ( 6700)     | 1016 ( 33867)      |
| TOTAL                           | 1070 ( 35401)      |                  |                   |                 | 2044 ( 68134)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 85 ( 2833)         | 70 ( 2333)       | 37 ( 1233)        | 24 ( 800)       | 85 ( 2833)         |
| SON POINT                       | 42 ( 1600)         | 53 ( 1767)       | 87 ( 2900)        | 18 ( 600)       | 179 ( 5966)        |
| PONT                            | 341 ( 11367)       | 123 ( 4100)      | 124 ( 4133)       | 42 ( 1400)      | 499 ( 16634)       |
| TOTAL                           | 474 ( 15600)       |                  |                   |                 | 763 ( 25433)       |
| <b>NITRATE-NITRICE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 3015 ( 127167)     | 5054 ( 168467)   | 2200 ( 73333)     | 1082 ( 36067)   | 3015 ( 127167)     |
| SON POINT                       | 2171 ( 72367)      | 198 ( 6600)      | 319 ( 10633)      | 89 ( 2967)      | 10507 ( 350234)    |
| PONT                            | 477 ( 29233)       | 5252 ( 175067)   | 2519 ( 83966)     | 1171 ( 39034)   | 1083 ( 49833)      |
| TOTAL                           | 6463 ( 228767)     |                  |                   |                 | 15805 ( 526834)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 253 ( 8433)        | 182 ( 6067)      | 215 ( 7167)       | 69 ( 2300)      | 253 ( 8433)        |
| SON POINT                       | 114 ( 3800)        | 256 ( 8333)      | 378 ( 12600)      | 108 ( 3600)     | 580 ( 19334)       |
| PONT                            | 1014 ( 33800)      | 432 ( 14400)     | 593 ( 19767)      | 177 ( 5900)     | 1750 ( 58333)      |
| TOTAL                           | 1381 ( 46033)      |                  |                   |                 | 2583 ( 86100)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 3731 ( 124367)     | 646 ( 21533)     | 698 ( 23267)      | 518 ( 17267)    | 3731 ( 124367)     |
| SON POINT                       | 598 ( 19933)       | 73 ( 2433)       | 125 ( 4167)       | 30 ( 1000)      | 2460 ( 82000)      |
| PONT                            | 310 ( 10333)       | 719 ( 23966)     | 823 ( 27434)      | 548 ( 18267)    | 538 ( 17933)       |
| TOTAL                           | 4639 ( 154633)     |                  |                   |                 | 6729 ( 224300)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 115888 ( 3862933)  | 50858 ( 1695267) | 103438 ( 3447933) | 12127 ( 404233) | 115888 ( 3862933)  |
| SON POINT                       | 3822 ( 1297000)    | 5016 ( 167200)   | 10152 ( 338400)   | 2175 ( 72500)   | 205345 ( 6848633)  |
| PONT                            | 168934 ( 5631133)  | 55874 ( 1862467) | 113590 ( 3786333) | 14302 ( 476733) | 186277 ( 6209233)  |
| TOTAL                           | 323744 ( 10791466) |                  |                   |                 | 507510 ( 16916999) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURPHY                     | 15139 ( 508633)    | 9382 ( 312733)   | 5477 ( 182567)    | 2923 ( 97433)   | 15139 ( 508633)    |
| SON POINT                       | 3532 ( 117733)     | 157 ( 5233)      | 301 ( 10033)      | 68 ( 2267)      | 21314 ( 710466)    |
| PONT                            | 648 ( 22133)       | 9539 ( 317966)   | 5778 ( 192600)    | 2991 ( 99700)   | 1190 ( 39666)      |
| TOTAL                           | 19335 ( 644499)    |                  |                   |                 | 37643 ( 1254765)   |

WASTE LOADINGS IN METRIC TONS PER MONTH FOR MAY, 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLER BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 216 ( 6968)        | 320 ( 10323)     | 105 ( 5968)       | 90 ( 2903)      | 216 ( 6968)        |
| NO. POINT                       | 121 ( 3903)        | 110 ( 3548)      | 197 ( 6355)       | 38 ( 1226)      | 716 ( 23097)       |
| PULL                            | 696 ( 22452)       | 430 ( 13871)     | 382 ( 12323)      | 128 ( 4129)     | 1041 ( 33581)      |
| TOTAL                           | 1033 ( 33323)      |                  |                   |                 | 1973 ( 63646)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 89 ( 2871)         | 33 ( 1065)       | 30 ( 968)         | 17 ( 548)       | 89 ( 2871)         |
| NO. POINT                       | 35 ( 1129)         | 55 ( 1774)       | 91 ( 2935)        | 18 ( 581)       | 115 ( 3710)        |
| PULL                            | 350 ( 11290)       | 86 ( 2839)       | 121 ( 3903)       | 35 ( 1129)      | 514 ( 16580)       |
| TOTAL                           | 474 ( 15290)       |                  |                   |                 | 718 ( 23161)       |
| <b>NITRATE-NITRICE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 3996 ( 128903)     | 3657 ( 117968)   | 2698 ( 87032)     | 785 ( 25323)    | 3996 ( 128903)     |
| NO. POINT                       | 1425 ( 45968)      | 204 ( 6581)      | 330 ( 10445)      | 93 ( 3000)      | 8565 ( 276291)     |
| PULL                            | 906 ( 29226)       | 3461 ( 124549)   | 3028 ( 97677)     | 878 ( 28323)    | 1533 ( 49452)      |
| TOTAL                           | 6327 ( 204097)     |                  |                   |                 | 14094 ( 454646)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 265 ( 8548)        | 46 ( 1484)       | 183 ( 5903)       | 29 ( 935)       | 265 ( 8548)        |
| NO. POINT                       | 75 ( 2419)         | 207 ( 6677)      | 365 ( 11774)      | 111 ( 3581)     | 333 ( 10741)       |
| PULL                            | 1042 ( 33613)      | 253 ( 8161)      | 508 ( 17677)      | 140 ( 4516)     | 1725 ( 55645)      |
| TOTAL                           | 1342 ( 44540)      |                  |                   |                 | 2323 ( 74934)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 3907 ( 126032)     | 401 ( 12935)     | 547 ( 17645)      | 307 ( 9903)     | 3907 ( 126032)     |
| NO. POINT                       | 400 ( 12903)       | 75 ( 2419)       | 129 ( 4161)       | 32 ( 1032)      | 1655 ( 53386)      |
| PULL                            | 329 ( 10323)       | 476 ( 15354)     | 676 ( 21806)      | 339 ( 10935)    | 556 ( 17935)       |
| TOTAL                           | 4627 ( 149250)     |                  |                   |                 | 6118 ( 197353)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 121370 ( 3915161)  | 52319 ( 1042548) | 119623 ( 3858806) | 9714 ( 313355)  | 121370 ( 3915161)  |
| NO. POINT                       | 34744 ( 1120774)   | 5183 ( 167194)   | 10491 ( 338019)   | 2247 ( 72444)   | 196480 ( 6335483)  |
| PULL                            | 174564 ( 5631097)  | 37502 ( 1209742) | 130114 ( 4197225) | 11961 ( 365839) | 192485 ( 6209194)  |
| TOTAL                           | 330678 ( 10667032) |                  |                   |                 | 510255 ( 16459838) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 15055 ( 511452)    | 7360 ( 237419)   | 5097 ( 164419)    | 2096 ( 67613)   | 15055 ( 511452)    |
| NO. POINT                       | 2457 ( 82084)      | 162 ( 5226)      | 311 ( 10032)      | 70 ( 2256)      | 17110 ( 551935)    |
| PULL                            | 686 ( 22129)       | 7522 ( 242645)   | 5408 ( 174451)    | 2166 ( 69871)   | 1229 ( 39645)      |
| TOTAL                           | 19094 ( 614065)    |                  |                   |                 | 34194 ( 1103032)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JUNE , 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                |                    |
| LAKE HURON                      | 216 ( 7200)        |                  |                   |                | 216 ( 7200)        |
| NO. POINT                       | 79 ( 2633)         |                  |                   |                | 1115 ( 37166)      |
| POINT                           | 640 ( 22667)       | 814 ( 27133)     | 182 ( 6067)       | 40 ( 1333)     | 1012 ( 33733)      |
| TOTAL                           | 975 ( 32500)       | 106 ( 3533)      | 190 ( 6333)       | 36 ( 1200)     | 2343 ( 78099)      |
|                                 |                    | 920 ( 30666)     | 372 ( 12400)      | 76 ( 2533)     |                    |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                   |                |                    |
| LAKE HURON                      | 89 ( 2967)         |                  |                   |                | 89 ( 2967)         |
| NO. POINT                       | 25 ( 833)          |                  |                   |                | 151 ( 5033)        |
| POINT                           | 340 ( 11333)       | 93 ( 3100)       | 27 ( 900)         | 6 ( 200)       | 495 ( 16500)       |
| TOTAL                           | 454 ( 15133)       | 53 ( 1767)       | 85 ( 2833)        | 17 ( 567)      | 735 ( 24500)       |
|                                 |                    | 106 ( 3533)      | 112 ( 3733)       | 23 ( 767)      |                    |
| <b>NITRATE-NITRATE NITROGEN</b> |                    |                  |                   |                |                    |
| LAKE HURON                      | 8004 ( 133467)     |                  |                   |                | 8004 ( 133467)     |
| NO. POINT                       | 946 ( 31533)       |                  |                   |                | 11389 ( 379633)    |
| POINT                           | 877 ( 29233)       | 7338 ( 244600)   | 2742 ( 92067)     | 343 ( 11433)   | 1483 ( 49433)      |
| TOTAL                           | 5627 ( 192733)     | 194 ( 6600)      | 319 ( 10633)      | 89 ( 2967)     | 16876 ( 562533)    |
|                                 |                    | 7536 ( 251200)   | 3081 ( 102700)    | 432 ( 14400)   |                    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                |                    |
| LAKE HURON                      | 266 ( 8867)        |                  |                   |                | 266 ( 8867)        |
| NO. POINT                       | 50 ( 1667)         |                  |                   |                | 248 ( 8267)        |
| POINT                           | 1013 ( 33767)      | 44 ( 1467)       | 144 ( 4800)       | 10 ( 333)      | 1694 ( 56467)      |
| TOTAL                           | 1329 ( 44301)      | 244 ( 8133)      | 350 ( 11667)      | 87 ( 2900)     | 2208 ( 73601)      |
|                                 |                    | 282 ( 9600)      | 494 ( 16467)      | 97 ( 3233)     |                    |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                |                    |
| LAKE HURON                      | 3916 ( 130533)     |                  |                   |                | 3916 ( 130533)     |
| NO. POINT                       | 357 ( 11900)       |                  |                   |                | 1923 ( 64100)      |
| POINT                           | 316 ( 10333)       | 808 ( 26933)     | 539 ( 17967)      | 219 ( 7300)    | 538 ( 17933)       |
| TOTAL                           | 4483 ( 152766)     | 73 ( 2433)       | 125 ( 4167)       | 30 ( 1000)     | 6377 ( 212566)     |
|                                 |                    | 883 ( 29366)     | 664 ( 22134)      | 249 ( 8300)    |                    |
| <b>CHLORIDE</b>                 |                    |                  |                   |                |                    |
| LAKE HURON                      | 121631 ( 4054367)  |                  |                   |                | 121631 ( 4054367)  |
| NO. POINT                       | 46899 ( 1563300)   |                  |                   |                | 203546 ( 678867)   |
| POINT                           | 16934 ( 5631133)   | 47915 ( 1597167) | 109195 ( 3639833) | 5537 ( 184567) | 186277 ( 6209233)  |
| TOTAL                           | 331064 ( 11048800) | 5016 ( 167200)   | 10152 ( 338400)   | 2175 ( 72500)  | 511454 ( 17088667) |
|                                 |                    | 52931 ( 1764367) | 119347 ( 3978233) | 7712 ( 257067) |                    |
| <b>SILICA</b>                   |                    |                  |                   |                |                    |
| LAKE HURON                      | 15889 ( 529633)    |                  |                   |                | 15889 ( 529633)    |
| NO. POINT                       | 2057 ( 68567)      |                  |                   |                | 21947 ( 731566)    |
| POINT                           | 664 ( 22133)       | 13804 ( 460133)  | 4963 ( 165433)    | 1123 ( 37433)  | 1190 ( 39666)      |
| TOTAL                           | 16610 ( 620333)    | 157 ( 5233)      | 301 ( 10033)      | 68 ( 2267)     | 39026 ( 1308865)   |
|                                 |                    | 13961 ( 465366)  | 5264 ( 175466)    | 1191 ( 39700)  |                    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JULY - 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DEL/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|------------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                  |                |                    |
| LAKE MURKIN                     | 225 ( 7258)        | 243 ( 7839)      | 38 ( 1226)       | 18 ( 581)      | 225 ( 7258)        |
| DOE POINT                       | 36 ( 1161)         | 109 ( 3516)      | 168 ( 5419)      | 36 ( 1161)     | 335 ( 10807)       |
| POTAT                           | 694 ( 22387)       | 352 ( 11355)     | 208 ( 6645)      | 54 ( 1742)     | 1007 ( 32483)      |
| TOTAL                           | 955 ( 30806)       |                  |                  |                | 1567 ( 50548)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                  |                |                    |
| LAKE MURKIN                     | 93 ( 3000)         | 29 ( 935)        | 7 ( 226)         | 3 ( 97)        | 93 ( 3000)         |
| DOE POINT                       | 13 ( 419)          | 54 ( 1742)       | 73 ( 2355)       | 18 ( 581)      | 52 ( 1677)         |
| POTAT                           | 348 ( 11226)       | 83 ( 2677)       | 80 ( 2581)       | 21 ( 678)      | 493 ( 15904)       |
| TOTAL                           | 454 ( 14645)       |                  |                  |                | 433 ( 14058)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                    |                  |                  |                |                    |
| LAKE MURKIN                     | 4174 ( 134645)     | 3365 ( 108548)   | 1047 ( 33774)    | 90 ( 2903)     | 4174 ( 134645)     |
| DOE POINT                       | 242 ( 7806)        | 197 ( 6355)      | 330 ( 10645)     | 93 ( 3000)     | 4744 ( 153031)     |
| POTAT                           | 916 ( 29226)       | 3562 ( 114903)   | 1377 ( 44419)    | 183 ( 5903)    | 1526 ( 49226)      |
| TOTAL                           | 5332 ( 171677)     |                  |                  |                | 10444 ( 336902)    |
| <b>AMMONIA-NITROGEN</b>         |                    |                  |                  |                |                    |
| LAKE MURKIN                     | 277 ( 8935)        | 14 ( 452)        | 6 ( 194)         | 1 ( 32)        | 277 ( 8935)        |
| DOE POINT                       | 21 ( 677)          | 211 ( 6806)      | 323 ( 10419)     | 78 ( 2516)     | 42 ( 1355)         |
| POTAT                           | 1039 ( 35160)      | 225 ( 7258)      | 329 ( 10613)     | 79 ( 2548)     | 1651 ( 53257)      |
| TOTAL                           | 1337 ( 43128)      |                  |                  |                | 1970 ( 63547)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                  |                |                    |
| LAKE MURKIN                     | 4081 ( 131645)     | 332 ( 10710)     | 134 ( 4323)      | 143 ( 4613)    | 4081 ( 131645)     |
| DOE POINT                       | 141 ( 4548)        | 73 ( 2355)       | 123 ( 3968)      | 32 ( 1032)     | 750 ( 24194)       |
| POTAT                           | 327 ( 10323)       | 405 ( 13065)     | 257 ( 8291)      | 175 ( 5645)    | 548 ( 17678)       |
| TOTAL                           | 4542 ( 146516)     |                  |                  |                | 5379 ( 175517)     |
| <b>CHLORIDE</b>                 |                    |                  |                  |                |                    |
| LAKE MURKIN                     | 126764 ( 4089161)  | 26919 ( 868355)  | 24477 ( 789581)  | 3133 ( 101065) | 126764 ( 4089161)  |
| DOE POINT                       | 14480 ( 467007)    | 5183 ( 167194)   | 10491 ( 338419)  | 2247 ( 72484)  | 69009 ( 2226098)   |
| POTAT                           | 174560 ( 5631097)  | 32102 ( 1035549) | 34968 ( 1124000) | 5380 ( 173549) | 192485 ( 6209194)  |
| TOTAL                           | 315804 ( 10187355) |                  |                  |                | 348258 ( 12524453) |
| <b>SILICA</b>                   |                    |                  |                  |                |                    |
| LAKE MURKIN                     | 16560 ( 534194)    | 6753 ( 217839)   | 1470 ( 60323)    | 592 ( 19097)   | 16560 ( 534194)    |
| DOE POINT                       | 822 ( 26516)       | 162 ( 5226)      | 311 ( 10032)     | 70 ( 2258)     | 10037 ( 323775)    |
| POTAT                           | 14088 ( 562434)    | 6015 ( 223065)   | 2181 ( 70355)    | 662 ( 21355)   | 1229 ( 39645)      |
| TOTAL                           |                    |                  |                  |                | 27826 ( 897614)    |

# BASELINE LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1973 (AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN      | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                |                    |
| LAKE MURRAY                     | 225 ( 7254)        |                  |                | 225 ( 7254)        |
| DOWN POINT                      | 34 ( 1256)         | 11 ( 355)        | 16 ( 561)      | 75 ( 2620)         |
| POINT                           | 693 ( 22355)       | 166 ( 5355)      | 35 ( 1129)     | 995 ( 32097)       |
| TOTAL                           | 952 ( 30871)       | 177 ( 5710)      | 53 ( 1710)     | 1295 ( 41775)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                |                    |
| LAKE MURRAY                     | 93 ( 3000)         |                  |                | 93 ( 3000)         |
| DOWN POINT                      | 13 ( 323)          | 3 ( 97)          | 4 ( 129)       | 20 ( 646)          |
| POINT                           | 347 ( 11190)       | 68 ( 2190)       | 18 ( 561)      | 474 ( 15202)       |
| TOTAL                           | 453 ( 14517)       | 71 ( 2291)       | 22 ( 710)      | 547 ( 16936)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                |                    |
| LAKE MURRAY                     | 4174 ( 134645)     |                  |                | 4174 ( 134645)     |
| DOWN POINT                      | 224 ( 7290)        | 403 ( 14290)     | 68 ( 2039)     | 1711 ( 55193)      |
| POINT                           | 905 ( 29226)       | 330 ( 10645)     | 93 ( 3000)     | 1519 ( 49000)      |
| TOTAL                           | 5304 ( 171161)     | 773 ( 24935)     | 161 ( 5039)    | 7404 ( 238836)     |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                |                    |
| LAKE MURRAY                     | 277 ( 8935)        |                  |                | 277 ( 8935)        |
| DOWN POINT                      | 21 ( 677)          | 12 ( 387)        | 1 ( 32)        | 36 ( 1161)         |
| POINT                           | 1037 ( 33452)      | 297 ( 9581)      | 79 ( 2548)     | 1590 ( 51291)      |
| TOTAL                           | 1335 ( 43064)      | 309 ( 9968)      | 80 ( 2580)     | 1903 ( 61307)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                |                    |
| LAKE MURRAY                     | 4081 ( 131645)     |                  |                | 4081 ( 131645)     |
| DOWN POINT                      | 149 ( 4806)        | 70 ( 2258)       | 122 ( 3935)    | 411 ( 13003)       |
| POINT                           | 320 ( 10323)       | 125 ( 4032)      | 32 ( 1032)     | 547 ( 17645)       |
| TOTAL                           | 4550 ( 146774)     | 195 ( 6290)      | 154 ( 4967)    | 5046 ( 162773)     |
| <b>CHLORIDE</b>                 |                    |                  |                |                    |
| LAKE MURRAY                     | 126764 ( 4089161)  |                  |                | 126764 ( 4089161)  |
| DOWN POINT                      | 12134 ( 391444)    | 29319 ( 945774)  | 2920 ( 94194)  | 57548 ( 1856307)   |
| POINT                           | 170564 ( 5431097)  | 10491 ( 338419)  | 2247 ( 72484)  | 192460 ( 6200387)  |
| TOTAL                           | 313464 ( 10111742) | 39810 ( 1284193) | 5167 ( 166678) | 376772 ( 12153935) |
| <b>SILICA</b>                   |                    |                  |                |                    |
| LAKE MURRAY                     | 16560 ( 534194)    |                  |                | 16560 ( 534194)    |
| DOWN POINT                      | 804 ( 25935)       | 945 ( 30484)     | 495 ( 15968)   | 4628 ( 149200)     |
| POINT                           | 686 ( 22129)       | 311 ( 10032)     | 70 ( 2258)     | 1229 ( 39405)      |
| TOTAL                           | 18050 ( 582258)    | 1256 ( 40516)    | 565 ( 18226)   | 22417 ( 723129)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DE/ST. CLW BASIN  | WESTERN BASIN  | CENTRAL BASIN   | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|----------------|-----------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                 |                |                    |
| LAKE HURON                      | 223 ( 7433)       |                |                 |                | 223 ( 7433)        |
| AG. POINT                       | 29 ( 967)         | 0 ( 0)         | 2 ( 67)         | 12 ( 400)      | 43 ( 1436)         |
| POINT                           | 665 ( 22167)      | 50 ( 1667)     | 146 ( 4867)     | 34 ( 1133)     | 895 ( 29834)       |
| TOTAL                           | 917 ( 30567)      | 50 ( 1667)     | 148 ( 4934)     | 46 ( 1533)     | 1161 ( 38701)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                |                 |                |                    |
| LAKE HURON                      | 92 ( 3067)        |                |                 |                | 92 ( 3067)         |
| AG. POINT                       | 7 ( 233)          | 2 ( 67)        | 2 ( 67)         | 3 ( 100)       | 14 ( 467)          |
| POINT                           | 334 ( 11133)      | 25 ( 833)      | 62 ( 2067)      | 17 ( 567)      | 438 ( 14600)       |
| TOTAL                           | 433 ( 14433)      | 27 ( 900)      | 64 ( 2134)      | 20 ( 667)      | 544 ( 18134)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                |                 |                |                    |
| LAKE HURON                      | 4125 ( 137500)    |                |                 |                | 4125 ( 137500)     |
| AG. POINT                       | 73 ( 2433)        | 8 ( 267)       | 67 ( 2233)      | 30 ( 1000)     | 178 ( 5933)        |
| POINT                           | 804 ( 26933)      | 139 ( 4633)    | 313 ( 10433)    | 89 ( 2967)     | 1409 ( 46966)      |
| TOTAL                           | 5066 ( 168866)    | 147 ( 4900)    | 380 ( 12666)    | 119 ( 3967)    | 5712 ( 190399)     |
| <b>AMMONIA NITROGEN</b>         |                   |                |                 |                |                    |
| LAKE HURON                      | 274 ( 9133)       |                |                 |                | 274 ( 9133)        |
| AG. POINT                       | 15 ( 500)         | 0 ( 0)         | 1 ( 33)         | 1 ( 33)        | 17 ( 566)          |
| POINT                           | 997 ( 33233)      | 131 ( 4367)    | 275 ( 9167)     | 74 ( 2467)     | 1477 ( 49234)      |
| TOTAL                           | 1286 ( 42866)     | 131 ( 4367)    | 276 ( 9200)     | 75 ( 2500)     | 1768 ( 58933)      |
| <b>ORGANIC NITROGEN</b>         |                   |                |                 |                |                    |
| LAKE HURON                      | 4033 ( 134433)    |                |                 |                | 4033 ( 134433)     |
| AG. POINT                       | 73 ( 2433)        | 11 ( 367)      | 18 ( 600)       | 109 ( 3633)    | 211 ( 7033)        |
| POINT                           | 307 ( 10233)      | 51 ( 1700)     | 114 ( 3800)     | 30 ( 1000)     | 502 ( 16733)       |
| TOTAL                           | 4413 ( 147099)    | 62 ( 2067)     | 132 ( 4400)     | 139 ( 4633)    | 4746 ( 158199)     |
| <b>CHLORIDE</b>                 |                   |                |                 |                |                    |
| LAKE HURON                      | 125285 ( 4176167) |                |                 |                | 125285 ( 4176167)  |
| AG. POINT                       | 1728 ( 57600)     | 4886 ( 149533) | 8022 ( 267400)  | 2266 ( 75533)  | 16502 ( 550066)    |
| POINT                           | 167118 ( 5570600) | 4304 ( 143467) | 10146 ( 338200) | 2175 ( 72500)  | 183743 ( 6124767)  |
| TOTAL                           | 294131 ( 984367)  | 8790 ( 293000) | 18168 ( 605600) | 4441 ( 148033) | 325530 ( 10851000) |
| <b>SILICA</b>                   |                   |                |                 |                |                    |
| LAKE HURON                      | 16360 ( 545533)   |                |                 |                | 16360 ( 545533)    |
| AG. POINT                       | 417 ( 13900)      | 292 ( 9733)    | 286 ( 9533)     | 412 ( 13733)   | 1407 ( 46899)      |
| POINT                           | 668 ( 22133)      | 152 ( 5067)    | 301 ( 10033)    | 68 ( 2267)     | 1185 ( 39500)      |
| TOTAL                           | 17407 ( 581566)   | 444 ( 14800)   | 587 ( 19566)    | 480 ( 16000)   | 18958 ( 631932)    |

**BASIN LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1973**  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DE/ST CLR BASIN   | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 214 ( 6903)       | 1 ( 32)         | 7 ( 226)         | 14 ( 452)      | 214 ( 6903)        |
| MUN. POINT                      | 34 ( 1097)        | 56 ( 1806)      | 164 ( 5290)      | 36 ( 1161)     | 56 ( 1807)         |
| POINT                           | 699 ( 22226)      | 57 ( 1836)      | 171 ( 5516)      | 50 ( 1613)     | 945 ( 30483)       |
| TOTAL                           | 937 ( 30226)      |                 |                  |                | 1215 ( 39193)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURON                      | 89 ( 2871)        | 3 ( 97)         | 3 ( 97)          | 3 ( 97)        | 89 ( 2871)         |
| MUN. POINT                      | 8 ( 258)          | 27 ( 871)       | 67 ( 2161)       | 18 ( 581)      | 17 ( 549)          |
| POINT                           | 345 ( 11129)      | 30 ( 968)       | 70 ( 2258)       | 21 ( 678)      | 457 ( 14742)       |
| TOTAL                           | 402 ( 14258)      |                 |                  |                | 563 ( 18162)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURON                      | 3960 ( 127742)    | 20 ( 645)       | 184 ( 5935)      | 68 ( 2198)     | 3960 ( 127742)     |
| MUN. POINT                      | 113 ( 3645)       | 181 ( 5839)     | 330 ( 10645)     | 93 ( 300)      | 385 ( 12419)       |
| POINT                           | 904 ( 29161)      | 201 ( 6484)     | 514 ( 16580)     | 161 ( 5194)    | 1508 ( 48645)      |
| TOTAL                           | 4977 ( 160548)    |                 |                  |                | 5853 ( 188806)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 263 ( 8484)       | 1 ( 32)         | 20 ( 645)        | 1 ( 32)        | 263 ( 8484)        |
| MUN. POINT                      | 16 ( 516)         | 145 ( 4677)     | 301 ( 9710)      | 77 ( 2484)     | 38 ( 1225)         |
| POINT                           | 1033 ( 3323)      | 146 ( 4709)     | 321 ( 10355)     | 78 ( 2516)     | 1556 ( 50194)      |
| TOTAL                           | 1312 ( 42323)     |                 |                  |                | 1857 ( 59903)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 3873 ( 124935)    | 16 ( 516)       | 52 ( 1677)       | 123 ( 3968)    | 3873 ( 124935)     |
| MUN. POINT                      | 88 ( 2839)        | 57 ( 1839)      | 129 ( 4161)      | 32 ( 1032)     | 279 ( 9000)        |
| POINT                           | 320 ( 10323)      | 73 ( 2355)      | 181 ( 5838)      | 155 ( 5000)    | 538 ( 17355)       |
| TOTAL                           | 4281 ( 138097)    |                 |                  |                | 4690 ( 151290)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURON                      | 120291 ( 3880355) | 6727 ( 217000)  | 43944 ( 1417548) | 2714 ( 87548)  | 120291 ( 3880355)  |
| MUN. POINT                      | 3572 ( 115226)    | 4845 ( 156290)  | 10491 ( 338419)  | 2247 ( 72484)  | 56957 ( 1837322)   |
| POINT                           | 17126 ( 5524774)  | 11572 ( 373290) | 54435 ( 1755967) | 4961 ( 160032) | 186651 ( 6091967)  |
| TOTAL                           | 295131 ( 9520355) |                 |                  |                | 366099 ( 11809644) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURON                      | 15714 ( 506903)   | 443 ( 14290)    | 707 ( 22806)     | 518 ( 16710)   | 15714 ( 506903)    |
| MUN. POINT                      | 514 ( 16541)      | 162 ( 5226)     | 311 ( 10032)     | 70 ( 2258)     | 2182 ( 70387)      |
| POINT                           | 686 ( 22129)      | 605 ( 19516)    | 1018 ( 32838)    | 588 ( 18968)   | 1229 ( 39645)      |
| TOTAL                           | 16914 ( 545613)   |                 |                  |                | 19125 ( 616935)    |

BASIN LOADINGS IN METRIC TONS PER A.D.M. FOR NOVEMBER, 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|-----------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                 |                   |                |                    |
| LAKE MURDO<br>CON. POINT        | 215 ( 7167)        | 2 ( 67)         | 77 ( 2567)        | 71 ( 2367)     | 215 ( 7167)        |
| POINT                           | 120 ( 4000)        | 91 ( 3033)      | 143 ( 6100)       | 36 ( 1200)     | 270 ( 9001)        |
| TOTAL                           | 674 ( 22467)       | 93 ( 3100)      | 260 ( 8667)       | 107 ( 3567)    | 984 ( 32800)       |
|                                 | 1009 ( 33634)      |                 |                   |                | 1469 ( 48968)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                 |                   |                |                    |
| LAKE MURDO                      | 89 ( 2967)         | 5 ( 167)        | 14 ( 467)         | 12 ( 400)      | 89 ( 2967)         |
| CON. POINT                      | 33 ( 1100)         | 35 ( 1167)      | 79 ( 2633)        | 18 ( 600)      | 64 ( 2134)         |
| POINT                           | 338 ( 11267)       | 40 ( 1334)      | 93 ( 3100)        | 30 ( 1000)     | 470 ( 15667)       |
| TOTAL                           | 460 ( 15334)       |                 |                   |                | 623 ( 20768)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                 |                   |                |                    |
| LAKE MURDO                      | 3987 ( 132900)     | 628 ( 20933)    | 941 ( 31367)      | 575 ( 19167)   | 3987 ( 132900)     |
| CON. POINT                      | 1196 ( 39933)      | 193 ( 6433)     | 319 ( 10633)      | 89 ( 2967)     | 3342 ( 111400)     |
| POINT                           | 877 ( 29233)       | 821 ( 27366)    | 1260 ( 42000)     | 664 ( 22134)   | 1478 ( 49266)      |
| TOTAL                           | 6062 ( 202166)     |                 |                   |                | 8907 ( 293566)     |
| <b>AMMONIA NITROGEN</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 265 ( 8833)        | 13 ( 433)       | 124 ( 4133)       | 32 ( 1067)     | 265 ( 8833)        |
| CON. POINT                      | 70 ( 2333)         | 159 ( 5300)     | 322 ( 10733)      | 95 ( 3167)     | 239 ( 7966)        |
| POINT                           | 1008 ( 33600)      | 172 ( 5733)     | 446 ( 14866)      | 127 ( 4234)    | 1584 ( 52800)      |
| TOTAL                           | 1343 ( 44766)      |                 |                   |                | 2088 ( 69599)      |
| <b>ORGANIC NITROGEN</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 3899 ( 129967)     | 29 ( 967)       | 304 ( 10133)      | 284 ( 9467)    | 3899 ( 129967)     |
| CON. POINT                      | 374 ( 12467)       | 71 ( 2367)      | 125 ( 4167)       | 30 ( 1000)     | 991 ( 33034)       |
| POINT                           | 310 ( 10333)       | 100 ( 3334)     | 429 ( 14300)      | 314 ( 10467)   | 536 ( 17867)       |
| TOTAL                           | 4543 ( 152767)     |                 |                   |                | 5426 ( 180868)     |
| <b>CHLORIDE</b>                 |                    |                 |                   |                |                    |
| LAKE MURDO                      | 121109 ( 4036967)  | 13563 ( 452100) | 106480 ( 3549333) | 7269 ( 242300) | 121109 ( 4036967)  |
| CON. POINT                      | 25013 ( 83367)     | 5016 ( 167200)  | 10152 ( 338400)   | 2175 ( 72500)  | 152325 ( 5077500)  |
| POINT                           | 168934 ( 5631133)  | 18579 ( 619300) | 116632 ( 3887733) | 9448 ( 314800) | 186277 ( 6209233)  |
| TOTAL                           | 315056 ( 10501867) |                 |                   |                | 459711 ( 15323700) |
| <b>SILICA</b>                   |                    |                 |                   |                |                    |
| LAKE MURDO                      | 15821 ( 527367)    | 1690 ( 56333)   | 2519 ( 83967)     | 1715 ( 57167)  | 15821 ( 527367)    |
| CON. POINT                      | 2224 ( 74200)      | 157 ( 5233)     | 301 ( 10033)      | 68 ( 2267)     | 8150 ( 271667)     |
| POINT                           | 663 ( 22133)       | 1847 ( 61566)   | 2620 ( 90000)     | 1743 ( 59434)  | 1190 ( 39666)      |
| TOTAL                           | 18711 ( 623700)    |                 |                   |                | 25161 ( 838700)    |

DAILY LOADINGS IN METRIC TONS PER MONTH FOR DECEMBER, 1973  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN     | CENTRAL BASIN   | EASTERN BASIN | TOTAL              |
|---------------------------------|--------------------|-------------------|-----------------|---------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                   |                 |               |                    |
| LAKE MURON                      | 219 ( 7032)        | 791 ( 25516)      | 184 ( 5935)     | 88 ( 2839)    | 216 ( 7032)        |
| NO. POINT                       | 221 ( 7129)        | 170 ( 5408)       | 198 ( 6387)     | 38 ( 1226)    | 1284 ( 41419)      |
| POINT                           | 701 ( 22613)       | 901 ( 29064)      | 342 ( 12322)    | 126 ( 4065)   | 1087 ( 33774)      |
| TOTAL                           | 1140 ( 36770)      |                   |                 |               | 2549 ( 82225)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                   |                 |               |                    |
| LAKE MURON                      | 96 ( 2903)         | 56 ( 1806)        | 30 ( 968)       | 13 ( 419)     | 90 ( 2903)         |
| NO. POINT                       | 59 ( 1903)         | 55 ( 1774)        | 87 ( 2806)      | 18 ( 581)     | 158 ( 5096)        |
| POINT                           | 350 ( 11290)       | 111 ( 3580)       | 117 ( 3774)     | 31 ( 1000)    | 510 ( 16451)       |
| TOTAL                           | 499 ( 16096)       |                   |                 |               | 758 ( 24450)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                   |                 |               |                    |
| LAKE MURON                      | 4031 ( 130032)     | 4472 ( 144258)    | 2443 ( 78806)   | 657 ( 21194)  | 4031 ( 130032)     |
| NO. POINT                       | 2434 ( 78605)      | 204 ( 6581)       | 330 ( 10645)    | 93 ( 3000)    | 10010 ( 322903)    |
| POINT                           | 906 ( 29226)       | 4676 ( 150839)    | 2773 ( 89451)   | 750 ( 24194)  | 1533 ( 49452)      |
| TOTAL                           | 7375 ( 237903)     |                   |                 |               | 15574 ( 502387)    |
| <b>AMMONIA NITROGEN</b>         |                    |                   |                 |               |                    |
| LAKE MURON                      | 268 ( 8485)        | 42 ( 1355)        | 189 ( 6097)     | 42 ( 1355)    | 260 ( 8485)        |
| NO. POINT                       | 139 ( 4484)        | 229 ( 7387)       | 364 ( 11742)    | 100 ( 3226)   | 412 ( 13291)       |
| POINT                           | 1045 ( 33710)      | 271 ( 8742)       | 553 ( 17839)    | 142 ( 4581)   | 1738 ( 56065)      |
| TOTAL                           | 1452 ( 46839)      |                   |                 |               | 2418 ( 78001)      |
| <b>ORGANIC NITROGEN</b>         |                    |                   |                 |               |                    |
| LAKE MURON                      | 3942 ( 127161)     | 550 ( 17742)      | 578 ( 18645)    | 360 ( 11613)  | 3942 ( 127161)     |
| NO. POINT                       | 676 ( 21613)       | 75 ( 2419)        | 129 ( 4161)     | 32 ( 1032)    | 2158 ( 69613)      |
| POINT                           | 320 ( 10323)       | 625 ( 20161)      | 707 ( 22806)    | 392 ( 12645)  | 556 ( 17935)       |
| TOTAL                           | 4932 ( 159097)     |                   |                 |               | 6656 ( 214709)     |
| <b>CHLORIDE</b>                 |                    |                   |                 |               |                    |
| LAKE MURON                      | 122448 ( 3949935)  | 136074 ( 4389484) | 7882 ( 250258)  |               | 122448 ( 3949935)  |
| NO. POINT                       | 44849 ( 122226)    | 10491 ( 334419)   | 2247 ( 72486)   |               | 221878 ( 7157355)  |
| POINT                           | 174564 ( 5631097)  | 146565 ( 4727903) | 10129 ( 326742) |               | 192485 ( 6209194)  |
| TOTAL                           | 341101 ( 11003258) |                   |                 |               | 536811 ( 17316484) |
| <b>SILICA</b>                   |                    |                   |                 |               |                    |
| LAKE MURON                      | 15996 ( 516000)    | 9511 ( 306806)    | 4934 ( 159161)  | 1989 ( 64161) | 15996 ( 516000)    |
| NO. POINT                       | 3528 ( 113406)     | 162 ( 5226)       | 311 ( 10032)    | 70 ( 2258)    | 19962 ( 643934)    |
| POINT                           | 646 ( 22129)       | 9673 ( 312032)    | 5245 ( 169193)  | 2059 ( 66419) | 1229 ( 39645)      |
| TOTAL                           | 20210 ( 651935)    |                   |                 |               | 37187 ( 1199579)   |

WASTEWATER LOADINGS IN METRIC TONS PER MONTH FOR JANUARY, 1974  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 251 ( 8097)        | 1440 ( 46452)    | 545 ( 17581)      | 142 ( 4581)     | 251 ( 8097)        |
| AG. POINT                       | 535 ( 17258)       | 89 ( 2871)       | 179 ( 5774)       | 36 ( 1161)      | 2662 ( 85872)      |
| POINT                           | 511 ( 16464)       | 1529 ( 49323)    | 724 ( 23355)      | 178 ( 5742)     | 815 ( 26290)       |
| TOTAL                           | 1297 ( 41859)      |                  |                   |                 | 3728 ( 120259)     |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                   |                 |                    |
| LAKE HURON                      | 59 ( 1903)         | 193 ( 6226)      | 93 ( 3000)        | 22 ( 710)       | 59 ( 1903)         |
| AG. POINT                       | 112 ( 3613)        | 44 ( 1419)       | 81 ( 2613)        | 17 ( 548)       | 420 ( 13549)       |
| POINT                           | 255 ( 8226)        | 237 ( 7645)      | 174 ( 5613)       | 39 ( 1258)      | 397 ( 12806)       |
| TOTAL                           | 426 ( 13742)       |                  |                   |                 | 876 ( 28258)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE HURON                      | 4246 ( 136968)     | 9059 ( 292226)   | 3686 ( 118903)    | 975 ( 31452)    | 4246 ( 136968)     |
| AG. POINT                       | 4900 ( 160000)     | 207 ( 6677)      | 323 ( 10419)      | 90 ( 2903)      | 18680 ( 602581)    |
| POINT                           | 609 ( 20332)       | 9266 ( 298903)   | 4009 ( 129322)    | 1065 ( 34355)   | 1489 ( 48031)      |
| TOTAL                           | 10075 ( 325000)    |                  |                   |                 | 24415 ( 787580)    |
| <b>AMMONIA-NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 280 ( 9032)        | 486 ( 15677)     | 387 ( 12484)      | 40 ( 1290)      | 280 ( 9032)        |
| AG. POINT                       | 296 ( 9548)        | 263 ( 8484)      | 362 ( 11677)      | 107 ( 3452)     | 1209 ( 38999)      |
| POINT                           | 1008 ( 32516)      | 749 ( 24161)     | 749 ( 24161)      | 147 ( 4742)     | 1740 ( 56129)      |
| TOTAL                           | 1584 ( 51096)      |                  |                   |                 | 3229 ( 104160)     |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE HURON                      | 3643 ( 118806)     | 2015 ( 65000)    | 1106 ( 35677)     | 464 ( 15129)    | 3683 ( 118806)     |
| AG. POINT                       | 1416 ( 45742)      | 77 ( 2484)       | 129 ( 4161)       | 31 ( 1000)      | 5008 ( 161548)     |
| POINT                           | 307 ( 9903)        | 2092 ( 67484)    | 1235 ( 39838)     | 500 ( 16129)    | 544 ( 17548)       |
| TOTAL                           | 5466 ( 174451)     |                  |                   |                 | 9235 ( 297902)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE HURON                      | 101648 ( 3278968)  | 75184 ( 2425290) | 110161 ( 3553581) | 10666 ( 344065) | 101648 ( 3278968)  |
| AG. POINT                       | 86427 ( 2787968)   | 5265 ( 169839)   | 10466 ( 337613)   | 2170 ( 70000)   | 282438 ( 9110904)  |
| POINT                           | 173678 ( 5602516)  | 60444 ( 2595124) | 120627 ( 3891194) | 12836 ( 414065) | 191579 ( 6179968)  |
| TOTAL                           | 361753 ( 11469452) |                  |                   |                 | 575665 ( 18569640) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE HURON                      | 15010 ( 484194)    | 14977 ( 483129)  | 8913 ( 287516)    | 2541 ( 81968)   | 15010 ( 484194)    |
| AG. POINT                       | 6687 ( 215710)     | 165 ( 5323)      | 309 ( 9984)       | 68 ( 2144)      | 33118 ( 106823)    |
| POINT                           | 658 ( 21226)       | 15142 ( 484452)  | 9222 ( 294884)    | 2609 ( 84162)   | 1200 ( 38711)      |
| TOTAL                           | 22355 ( 721130)    |                  |                   |                 | 49329 ( 1591228)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1974  
(AVE DAILY LOADS IN KG/DAY)

|                                | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|--------------------------------|--------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>        |                    |                  |                  |                 |                    |
| LAKE MURON                     | 228 ( 8143)        | 514 ( 18429)     | 144 ( 5286)      | 92 ( 3286)      | 228 ( 8143)        |
| NO. POINT                      | 252 ( 9060)        | 81 ( 2893)       | 157 ( 5607)      | 32 ( 1143)      | 1008 ( 36001)      |
| POINT                          | 456 ( 16357)       |                  |                  |                 | 728 ( 26000)       |
| TOTAL                          | 936 ( 33500)       | 597 ( 21322)     | 305 ( 10893)     | 124 ( 4429)     | 1964 ( 70148)      |
| <b>ORTHO PHOSPHORUS</b>        |                    |                  |                  |                 |                    |
| LAKE MURON                     | 54 ( 1929)         |                  |                  |                 | 54 ( 1929)         |
| NO. POINT                      | 24 ( 226)          | 97 ( 3464)       | 28 ( 1000)       | 16 ( 571)       | 205 ( 7321)        |
| POINT                          | 228 ( 8143)        | 39 ( 1393)       | 65 ( 2321)       | 15 ( 536)       | 347 ( 12393)       |
| TOTAL                          | 346 ( 12358)       | 136 ( 4857)      | 93 ( 3321)       | 31 ( 1107)      | 606 ( 21643)       |
| <b>NITRATE-NITRIF NITROGEN</b> |                    |                  |                  |                 |                    |
| LAKE MURON                     | 3854 ( 137643)     |                  |                  |                 | 3854 ( 137643)     |
| NO. POINT                      | 2786 ( 99500)      | 5087 ( 181679)   | 1696 ( 60571)    | 744 ( 26571)    | 10313 ( 368321)    |
| POINT                          | 765 ( 2836)        | 167 ( 6679)      | 292 ( 10429)     | 81 ( 2893)      | 1345 ( 48037)      |
| TOTAL                          | 7425 ( 265179)     | 5274 ( 188358)   | 1988 ( 71000)    | 825 ( 29464)    | 15512 ( 554001)    |
| <b>AMMONIA NITROGEN</b>        |                    |                  |                  |                 |                    |
| LAKE MURON                     | 254 ( 9071)        |                  |                  |                 | 254 ( 9071)        |
| NO. POINT                      | 157 ( 5607)        | 236 ( 8429)      | 141 ( 5036)      | 25 ( 893)       | 559 ( 19465)       |
| POINT                          | 907 ( 32393)       | 237 ( 8464)      | 300 ( 10714)     | 97 ( 3464)      | 1541 ( 55035)      |
| TOTAL                          | 1318 ( 47071)      | 473 ( 16893)     | 441 ( 15750)     | 122 ( 4357)     | 2354 ( 84071)      |
| <b>ORGANIC NITROGEN</b>        |                    |                  |                  |                 |                    |
| LAKE MURON                     | 3342 ( 119357)     |                  |                  |                 | 3342 ( 119357)     |
| NO. POINT                      | 770 ( 27500)       | 937 ( 33464)     | 431 ( 15393)     | 251 ( 8964)     | 2389 ( 85321)      |
| POINT                          | 277 ( 9893)        | 69 ( 2464)       | 116 ( 4143)      | 27 ( 964)       | 489 ( 17464)       |
| TOTAL                          | 4389 ( 156750)     | 1006 ( 35928)    | 547 ( 19536)     | 278 ( 9928)     | 6220 ( 222142)     |
| <b>CHLORIDE</b>                |                    |                  |                  |                 |                    |
| LAKE MURON                     | 92242 ( 3294357)   |                  |                  |                 | 92242 ( 3294357)   |
| NO. POINT                      | 57441 ( 2051464)   | 49718 ( 1775643) | 82136 ( 2933429) | 8501 ( 303607)  | 197796 ( 7064143)  |
| POINT                          | 156871 ( 5602536)  | 4755 ( 169821)   | 9453 ( 337607)   | 1961 ( 70036)   | 173040 ( 6180000)  |
| TOTAL                          | 306554 ( 10946357) | 54073 ( 1905464) | 91589 ( 3271036) | 10462 ( 373643) | 463078 ( 16538500) |
| <b>SILICA</b>                  |                    |                  |                  |                 |                    |
| LAKE MURON                     | 13621 ( 486464)    |                  |                  |                 | 13621 ( 486464)    |
| NO. POINT                      | 4214 ( 150500)     | 9102 ( 325071)   | 3716 ( 132714)   | 1817 ( 64893)   | 18869 ( 673178)    |
| POINT                          | 595 ( 21256)       | 149 ( 5321)      | 279 ( 9964)      | 61 ( 2174)      | 1084 ( 38714)      |
| TOTAL                          | 18430 ( 658214)    | 9251 ( 330392)   | 3995 ( 142678)   | 1878 ( 67072)   | 33554 ( 1198356)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH, 1974  
(AVE DAILY LOADS IN KG/DAY)

|                                 | NET/ST. CLR BASIN  | WESTERN BASIN     | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|-------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                   |                   |                 |                    |
| LAKE MURON                      | 253 ( 8161)        | 910 ( 29355)      | 511 ( 16484)      | 407 ( 13129)    | 253 ( 8161)        |
| PO. POINT                       | 620 ( 20000)       | 93 ( 3000)        | 179 ( 5774)       | 36 ( 1161)      | 2448 ( 78968)      |
| PO. POINT                       | 511 ( 16484)       | 93 ( 3000)        | 179 ( 5774)       | 36 ( 1161)      | 819 ( 26419)       |
| TOTAL                           | 1384 ( 44655)      | 1003 ( 32355)     | 690 ( 22256)      | 443 ( 14290)    | 3520 ( 113548)     |
| <b>ORTHO PHOSPHORUS</b>         |                    |                   |                   |                 |                    |
| LAKE MURON                      | 60 ( 1935)         | 166 ( 5355)       | 77 ( 2484)        | 43 ( 1387)      | 60 ( 1935)         |
| PO. POINT                       | 130 ( 4194)        | 44 ( 1419)        | 88 ( 2839)        | 18 ( 581)       | 416 ( 13420)       |
| PO. POINT                       | 256 ( 8258)        | 44 ( 1419)        | 88 ( 2839)        | 18 ( 581)       | 406 ( 13097)       |
| TOTAL                           | 446 ( 14387)       | 210 ( 6774)       | 165 ( 5323)       | 61 ( 1968)      | 882 ( 28452)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                   |                   |                 |                    |
| LAKE MURON                      | 4286 ( 138258)     | 8559 ( 276097)    | 3486 ( 125355)    | 1726 ( 55677)   | 4286 ( 138258)     |
| PO. POINT                       | 5515 ( 177403)     | 207 ( 6777)       | 523 ( 16419)      | 90 ( 2903)      | 19686 ( 635032)    |
| PO. POINT                       | 609 ( 20322)       | 8766 ( 282774)    | 4209 ( 135774)    | 1816 ( 58580)   | 1489 ( 48031)      |
| TOTAL                           | 10670 ( 344193)    | 8766 ( 282774)    | 4209 ( 135774)    | 1816 ( 58580)   | 25461 ( 821321)    |
| <b>AMMONIA NITROGEN</b>         |                    |                   |                   |                 |                    |
| LAKE MURON                      | 282 ( 9097)        | 377 ( 12161)      | 421 ( 13581)      | 114 ( 3677)     | 282 ( 9097)        |
| PO. POINT                       | 328 ( 10581)       | 263 ( 8484)       | 376 ( 12129)      | 107 ( 3452)     | 1240 ( 40000)      |
| PO. POINT                       | 1016 ( 32774)      | 640 ( 20645)      | 797 ( 25710)      | 221 ( 7129)     | 1762 ( 56839)      |
| TOTAL                           | 1626 ( 52452)      | 640 ( 20645)      | 797 ( 25710)      | 221 ( 7129)     | 3284 ( 105936)     |
| <b>ORGANIC NITROGEN</b>         |                    |                   |                   |                 |                    |
| LAKE MURON                      | 3718 ( 119935)     | 1530 ( 49355)     | 1189 ( 38355)     | 758 ( 24452)    | 3718 ( 119935)     |
| PO. POINT                       | 1644 ( 53032)      | 77 ( 2484)        | 129 ( 4161)       | 31 ( 1000)      | 5121 ( 165194)     |
| PO. POINT                       | 307 ( 9903)        | 1607 ( 51839)     | 1318 ( 42516)     | 789 ( 25452)    | 584 ( 17588)       |
| TOTAL                           | 5669 ( 182870)     | 1607 ( 51839)     | 1318 ( 42516)     | 789 ( 25452)    | 9363 ( 302677)     |
| <b>CHLORIDE</b>                 |                    |                   |                   |                 |                    |
| LAKE MURON                      | 102603 ( 3309774)  | 101363 ( 3269774) | 112708 ( 3635742) | 17390 ( 560968) | 102603 ( 3309774)  |
| PO. POINT                       | 110154 ( 3553355)  | 5265 ( 169839)    | 10466 ( 337613)   | 2170 ( 70000)   | 341615 ( 11019839) |
| PO. POINT                       | 173676 ( 5602510)  | 106628 ( 3439613) | 123174 ( 3973355) | 19560 ( 630968) | 191579 ( 6179968)  |
| TOTAL                           | 386435 ( 12465645) | 106628 ( 3439613) | 123174 ( 3973355) | 19560 ( 630968) | 635797 ( 20509581) |
| <b>SILICA</b>                   |                    |                   |                   |                 |                    |
| LAKE MURON                      | 15151 ( 488742)    | 14482 ( 467161)   | 9176 ( 296000)    | 4676 ( 150839)  | 15151 ( 488742)    |
| PO. POINT                       | 8041 ( 259387)     | 165 ( 5323)       | 309 ( 9968)       | 68 ( 2194)      | 36375 ( 1173387)   |
| PO. POINT                       | 654 ( 21226)       | 165 ( 5323)       | 309 ( 9968)       | 68 ( 2194)      | 1200 ( 38711)      |
| TOTAL                           | 23650 ( 769355)    | 14647 ( 472484)   | 9485 ( 305968)    | 4744 ( 153033)  | 52726 ( 1700840)   |

# BASIN LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1970 (AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLM BASIN  | EASTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURDO                      | 248 ( 8267)        |                  |                   |                 | 248 ( 8267)        |
| ADJ. POINT                      | 519 ( 16633)       | 474 ( 15933)     | 321 ( 10700)      | 341 ( 11367)    | 1459 ( 48333)      |
| POINT                           | 494 ( 16467)       | 89 ( 2967)       | 175 ( 5767)       | 34 ( 1133)      | 790 ( 26334)       |
| TOTAL                           | 1061 ( 35367)      | 567 ( 18900)     | 494 ( 16467)      | 375 ( 12500)    | 2497 ( 82334)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                   |                 |                    |
| LAKE MURDO                      | 59 ( 1967)         |                  |                   |                 | 59 ( 1967)         |
| ADJ. POINT                      | 79 ( 2633)         | 91 ( 3033)       | 44 ( 1467)        | 36 ( 1200)      | 250 ( 8333)        |
| POINT                           | 247 ( 8233)        | 42 ( 1400)       | 77 ( 2567)        | 17 ( 567)       | 383 ( 12767)       |
| TOTAL                           | 385 ( 12833)       | 133 ( 4433)      | 121 ( 4034)       | 53 ( 1767)      | 692 ( 23067)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURDO                      | 4187 ( 139567)     |                  |                   |                 | 4187 ( 139567)     |
| ADJ. POINT                      | 3331 ( 111033)     | 5232 ( 174400)   | 2279 ( 75967)     | 1567 ( 52233)   | 12409 ( 413633)    |
| POINT                           | 841 ( 28033)       | 200 ( 6667)      | 313 ( 10433)      | 86 ( 2867)      | 1440 ( 48000)      |
| TOTAL                           | 8359 ( 278633)     | 5432 ( 181067)   | 2592 ( 86400)     | 1653 ( 55100)   | 18036 ( 601200)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDO                      | 276 ( 9200)        |                  |                   |                 | 276 ( 9200)        |
| ADJ. POINT                      | 205 ( 6833)        | 229 ( 7633)      | 271 ( 9033)       | 117 ( 3900)     | 822 ( 27399)       |
| POINT                           | 977 ( 32567)       | 253 ( 8433)      | 358 ( 11933)      | 104 ( 3467)     | 1692 ( 56400)      |
| TOTAL                           | 1458 ( 48600)      | 482 ( 16066)     | 629 ( 20966)      | 221 ( 7367)     | 2790 ( 92999)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDO                      | 3631 ( 121033)     |                  |                   |                 | 3631 ( 121033)     |
| ADJ. POINT                      | 1034 ( 34467)      | 879 ( 29300)     | 754 ( 25133)      | 774 ( 25800)    | 3481 ( 114700)     |
| POINT                           | 297 ( 9900)        | 74 ( 2467)       | 125 ( 4167)       | 29 ( 967)       | 525 ( 17501)       |
| TOTAL                           | 4962 ( 165400)     | 953 ( 31767)     | 879 ( 29300)      | 803 ( 26767)    | 7597 ( 253234)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURDO                      | 100217 ( 3340567)  |                  |                   |                 | 100217 ( 3340567)  |
| ADJ. POINT                      | 69051 ( 2301700)   | 66915 ( 2230500) | 113362 ( 3778733) | 18516 ( 617200) | 267644 ( 8928133)  |
| POINT                           | 168076 ( 5602533)  | 5095 ( 169833)   | 10128 ( 337600)   | 2101 ( 70033)   | 185400 ( 6179999)  |
| TOTAL                           | 337344 ( 11244800) | 72010 ( 2400333) | 123490 ( 4116333) | 20617 ( 687233) | 553461 ( 18448699) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURDO                      | 14798 ( 493267)    |                  |                   |                 | 14798 ( 493267)    |
| ADJ. POINT                      | 5416 ( 180533)     | 9305 ( 310167)   | 5968 ( 198800)    | 4516 ( 150533)  | 25201 ( 840033)    |
| POINT                           | 637 ( 21233)       | 159 ( 5300)      | 299 ( 9967)       | 65 ( 2167)      | 1160 ( 38667)      |
| TOTAL                           | 20451 ( 695033)    | 9464 ( 315467)   | 6263 ( 208767)    | 4581 ( 152700)  | 41159 ( 1371967)   |

WASTEWATER LOADINGS IN METRIC TONS PER MONTH FOR MAY, 1974  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN      | CENTRAL BASIN | EASTERN BASIN | TOTAL              |
|---------------------------------|--------------------|---------------|---------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |               |               |                    |
| LAKE MURUM                      | 264 ( 8516)        |               |               | 264 ( 8516)        |
| W. POINT                        | 373 ( 12032)       |               |               | 373 ( 12032)       |
| E. POINT                        | 511 ( 16444)       |               |               | 511 ( 16444)       |
| TOTAL                           | 1148 ( 37032)      |               |               | 1148 ( 37032)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |               |               |                    |
| LAKE MURUM                      | 62 ( 2000)         |               |               | 62 ( 2000)         |
| W. POINT                        | 45 ( 2742)         |               |               | 45 ( 2742)         |
| E. POINT                        | 256 ( 8256)        |               |               | 256 ( 8256)        |
| TOTAL                           | 403 ( 13000)       |               |               | 403 ( 13000)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |               |               |                    |
| LAKE MURUM                      | 4466 ( 144065)     |               |               | 4466 ( 144065)     |
| W. POINT                        | 3790 ( 122254)     |               |               | 3790 ( 122254)     |
| E. POINT                        | 869 ( 28032)       |               |               | 869 ( 28032)       |
| TOTAL                           | 9125 ( 294351)     |               |               | 9125 ( 294351)     |
| <b>AMMONIA NITROGEN</b>         |                    |               |               |                    |
| LAKE MURUM                      | 295 ( 9516)        |               |               | 295 ( 9516)        |
| W. POINT                        | 215 ( 6935)        |               |               | 215 ( 6935)        |
| E. POINT                        | 1011 ( 32615)      |               |               | 1011 ( 32615)      |
| TOTAL                           | 1521 ( 49066)      |               |               | 1521 ( 49066)      |
| <b>ORGANIC NITROGEN</b>         |                    |               |               |                    |
| LAKE MURUM                      | 3873 ( 124935)     |               |               | 3873 ( 124935)     |
| W. POINT                        | 1072 ( 34581)      |               |               | 1072 ( 34581)      |
| E. POINT                        | 307 ( 9903)        |               |               | 307 ( 9903)        |
| TOTAL                           | 5252 ( 169419)     |               |               | 5252 ( 169419)     |
| <b>CHLORIDE</b>                 |                    |               |               |                    |
| LAKE MURUM                      | 106098 ( 3448323)  |               |               | 106098 ( 3448323)  |
| W. POINT                        | 64446 ( 2078903)   |               |               | 64446 ( 2078903)   |
| E. POINT                        | 173678 ( 562516)   |               |               | 173678 ( 562516)   |
| TOTAL                           | 345022 ( 11129742) |               |               | 345022 ( 11129742) |
| <b>SILICA</b>                   |                    |               |               |                    |
| LAKE MURUM                      | 15785 ( 509194)    |               |               | 15785 ( 509194)    |
| W. POINT                        | 5409 ( 170484)     |               |               | 5409 ( 170484)     |
| E. POINT                        | 658 ( 21226)       |               |               | 658 ( 21226)       |
| TOTAL                           | 21852 ( 700904)    |               |               | 21852 ( 700904)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR  
(AVE DAILY LOADS IN KG/DAY)

JUNE , 1974

|                                 | DET/ST, CLP HASL  | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 266 ( 8867)       | 34 ( 1133)      | 14 ( 533)        | 37 ( 1233)     | 266 ( 8867)        |
| NO. POINT                       | 51 ( 1900)        | 43 ( 2767)      | 158 ( 5267)      | 32 ( 1067)     | 144 ( 4799)        |
| POINT                           | 477 ( 15900)      | 43 ( 2767)      | 174 ( 5800)      | 69 ( 2300)     | 750 ( 25001)       |
| TOTAL                           | 800 ( 26667)      | 117 ( 3900)     | 174 ( 5800)      | 69 ( 2300)     | 1160 ( 38667)      |
| <b>URTHO PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 63 ( 2100)        | 9 ( 300)        | 6 ( 200)         | 8 ( 267)       | 63 ( 2100)         |
| NO. POINT                       | 16 ( 533)         | 34 ( 1300)      | 65 ( 2167)       | 16 ( 533)      | 39 ( 1300)         |
| POINT                           | 240 ( 8000)       | 48 ( 1600)      | 71 ( 2367)       | 24 ( 800)      | 360 ( 12000)       |
| TOTAL                           | 319 ( 10633)      | 48 ( 1600)      | 71 ( 2367)       | 24 ( 800)      | 462 ( 15400)       |
| <b>NITRATE-NITRATE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 4496 ( 149867)    | 1107 ( 36900)   | 492 ( 16400)     | 328 ( 10933)   | 4496 ( 149867)     |
| NO. POINT                       | 513 ( 17100)      | 193 ( 6433)     | 313 ( 10333)     | 86 ( 2867)     | 2440 ( 81333)      |
| POINT                           | 840 ( 28000)      | 1300 ( 43333)   | 805 ( 26633)     | 414 ( 13800)   | 1432 ( 47733)      |
| TOTAL                           | 5849 ( 194967)    | 1300 ( 43333)   | 805 ( 26633)     | 414 ( 13800)   | 8368 ( 278933)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 296 ( 9867)       | 17 ( 567)       | 13 ( 433)        | 3 ( 100)       | 296 ( 9867)        |
| NO. POINT                       | 29 ( 967)         | 182 ( 6067)     | 293 ( 9767)      | 84 ( 2800)     | 62 ( 2067)         |
| POINT                           | 942 ( 32007)      | 194 ( 6634)     | 306 ( 10200)     | 87 ( 2900)     | 1521 ( 50701)      |
| TOTAL                           | 1287 ( 42901)     | 194 ( 6634)     | 306 ( 10200)     | 87 ( 2900)     | 1879 ( 62635)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 3899 ( 129967)    | 99 ( 3300)      | 127 ( 4233)      | 175 ( 5833)    | 3899 ( 129967)     |
| NO. POINT                       | 171 ( 5700)       | 73 ( 2433)      | 125 ( 4167)      | 29 ( 967)      | 572 ( 19066)       |
| POINT                           | 297 ( 9900)       | 172 ( 5733)     | 252 ( 8400)      | 204 ( 6800)    | 524 ( 17467)       |
| TOTAL                           | 4367 ( 145567)    | 172 ( 5733)     | 252 ( 8400)      | 204 ( 6800)    | 4995 ( 166500)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 107606 ( 3586867) | 18017 ( 600567) | 45985 ( 1532833) | 5062 ( 168733) | 107606 ( 3586867)  |
| NO. POINT                       | 11763 ( 392100)   | 5095 ( 169833)  | 10128 ( 337600)  | 2101 ( 70033)  | 80427 ( 2698233)   |
| POINT                           | 165532 ( 5517133) | 23112 ( 770400) | 56113 ( 1870433) | 7163 ( 238766) | 182856 ( 6095199)  |
| TOTAL                           | 284901 ( 9406700) | 23112 ( 770400) | 56113 ( 1870433) | 7163 ( 238766) | 371289 ( 12376299) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 15890 ( 529667)   | 2660 ( 88933)   | 1399 ( 46633)    | 886 ( 29533)   | 15890 ( 529667)    |
| NO. POINT                       | 1045 ( 34833)     | 159 ( 5300)     | 299 ( 9967)      | 65 ( 2167)     | 5998 ( 199932)     |
| POINT                           | 637 ( 21233)      | 2827 ( 94233)   | 1698 ( 56600)    | 951 ( 31700)   | 1160 ( 38667)      |
| TOTAL                           | 17572 ( 585733)   | 2827 ( 94233)   | 1698 ( 56600)    | 951 ( 31700)   | 23048 ( 768266)    |

WASIN. LOADINGS IN METRIC TONS PER MONTH FOR JULY, 1974  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLM       | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURRAY                     | 223 ( 9129)       | 0 ( 0)          | 34 ( 1097)       | 30 ( 968)      | 203 ( 9129)        |
| NOX POINT                       | 46 ( 1484)        |                 | 150 ( 4839)      | 33 ( 1065)     | 110 ( 3549)        |
| POINT                           | 490 ( 15806)      | 55 ( 1774)      | 104 ( 5936)      | 63 ( 2033)     | 728 ( 23484)       |
| TOTAL                           | 819 ( 26419)      | 55 ( 1774)      | 104 ( 5936)      | 63 ( 2033)     | 1121 ( 36162)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURRAY                     | 67 ( 2161)        | 1 ( 32)         | 3 ( 97)          | 4 ( 129)       | 67 ( 2161)         |
| NOX POINT                       | 13 ( 419)         |                 | 62 ( 2000)       | 17 ( 548)      | 21 ( 677)          |
| POINT                           | 246 ( 7935)       | 26 ( 839)       | 65 ( 2097)       | 21 ( 677)      | 351 ( 11322)       |
| TOTAL                           | 326 ( 10515)      | 27 ( 871)       | 65 ( 2097)       | 21 ( 677)      | 439 ( 14160)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURRAY                     | 4785 ( 154355)    | 84 ( 2710)      | 254 ( 8194)      | 99 ( 3194)     | 4785 ( 154355)     |
| NOX POINT                       | 274 ( 8968)       | 180 ( 5806)     | 321 ( 10355)     | 90 ( 2903)     | 715 ( 23066)       |
| POINT                           | 664 ( 28000)      | 264 ( 8516)     | 575 ( 18549)     | 189 ( 6097)    | 1459 ( 47064)      |
| TOTAL                           | 5931 ( 191323)    | 264 ( 8516)     | 575 ( 18549)     | 189 ( 6097)    | 6959 ( 22445)      |
| <b>AMMONIA-NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURRAY                     | 315 ( 10161)      | 0 ( 0)          | 40 ( 1290)       | 4 ( 129)       | 315 ( 10161)       |
| NOX POINT                       | 21 ( 677)         |                 | 280 ( 9032)      | 75 ( 2419)     | 65 ( 2096)         |
| POINT                           | 991 ( 31968)      | 145 ( 4677)     | 320 ( 10322)     | 79 ( 2548)     | 1491 ( 48046)      |
| TOTAL                           | 1327 ( 42806)     | 145 ( 4677)     | 320 ( 10322)     | 79 ( 2548)     | 1871 ( 60353)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURRAY                     | 4150 ( 133871)    | 16 ( 516)       | 99 ( 3194)       | 164 ( 5290)    | 4150 ( 133871)     |
| NOX POINT                       | 113 ( 3645)       |                 | 129 ( 4161)      | 31 ( 1000)     | 392 ( 12645)       |
| POINT                           | 307 ( 9903)       | 61 ( 1968)      | 228 ( 7355)      | 195 ( 6290)    | 528 ( 17032)       |
| TOTAL                           | 4570 ( 147419)    | 77 ( 2484)      | 228 ( 7355)      | 195 ( 6290)    | 5070 ( 163546)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURRAY                     | 114533 ( 3694613) | 5357 ( 172806)  | 43231 ( 1394548) | 3369 ( 108677) | 114533 ( 3694613)  |
| NOX POINT                       | 4491 ( 144871)    | 5143 ( 165403)  | 10466 ( 337613)  | 2170 ( 70000)  | 5648 ( 1820902)    |
| POINT                           | 168992 ( 515155)  | 10500 ( 338709) | 53697 ( 1732161) | 5539 ( 178677) | 186771 ( 6024871)  |
| TOTAL                           | 280016 ( 9240839) | 10500 ( 338709) | 53697 ( 1732161) | 5539 ( 178677) | 357752 ( 11540386) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURRAY                     | 16912 ( 545548)   | 526 ( 16968)    | 957 ( 30871)     | 591 ( 19065)   | 16912 ( 545548)    |
| NOX POINT                       | 697 ( 22484)      | 160 ( 5161)     | 304 ( 9960)      | 64 ( 2194)     | 2771 ( 89388)      |
| POINT                           | 658 ( 21226)      | 686 ( 22129)    | 1266 ( 40839)    | 659 ( 21259)   | 1195 ( 38549)      |
| TOTAL                           | 14267 ( 589258)   | 686 ( 22129)    | 1266 ( 40839)    | 659 ( 21259)   | 20878 ( 673485)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1974  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 281 ( 9065)       |                 |                  |                | 281 ( 9065)        |
| PO. POINT                       | 34 ( 1097)        | 0 ( 0)          | 5 ( 161)         | 13 ( 419)      | 52 ( 1677)         |
| TOTAL                           | 491 ( 15834)      | 51 ( 1645)      | 158 ( 5097)      | 32 ( 1032)     | 732 ( 23613)       |
|                                 | 806 ( 26001)      | 51 ( 1645)      | 163 ( 5258)      | 45 ( 1451)     | 1065 ( 34355)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURON                      | 67 ( 2161)        |                 |                  |                | 67 ( 2161)         |
| PO. POINT                       | 9 ( 290)          | 2 ( 65)         |                  | 3 ( 97)        | 16 ( 517)          |
| TOTAL                           | 246 ( 7935)       | 25 ( 806)       | 62 ( 2000)       | 17 ( 548)      | 350 ( 11289)       |
|                                 | 322 ( 10386)      | 27 ( 871)       | 64 ( 2065)       | 20 ( 645)      | 433 ( 13967)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURON                      | 4765 ( 153713)    |                 |                  |                | 4765 ( 153713)     |
| PO. POINT                       | 128 ( 4129)       | 24 ( 774)       | 208 ( 6710)      | 23 ( 742)      | 383 ( 12355)       |
| TOTAL                           | 468 ( 28000)      | 184 ( 5935)     | 323 ( 10419)     | 88 ( 2839)     | 1463 ( 47193)      |
|                                 | 5761 ( 185639)    | 208 ( 6709)     | 531 ( 17129)     | 111 ( 3581)    | 6611 ( 213258)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 314 ( 10129)      |                 |                  |                | 314 ( 10129)       |
| PO. POINT                       | 16 ( 516)         | 0 ( 0)          | 6 ( 194)         | 1 ( 32)        | 23 ( 742)          |
| TOTAL                           | 990 ( 31935)      | 143 ( 4613)     | 286 ( 9290)      | 71 ( 2290)     | 1492 ( 48128)      |
|                                 | 1320 ( 42580)     | 143 ( 4613)     | 294 ( 9484)      | 72 ( 2322)     | 1829 ( 58999)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 4133 ( 133323)    |                 |                  |                | 4133 ( 133323)     |
| PO. POINT                       | 93 ( 3000)        | 9 ( 290)        | 55 ( 1774)       | 124 ( 4000)    | 281 ( 9064)        |
| TOTAL                           | 307 ( 9903)       | 59 ( 1903)      | 124 ( 4161)      | 31 ( 1000)     | 526 ( 16967)       |
|                                 | 4533 ( 146226)    | 68 ( 2193)      | 184 ( 5935)      | 155 ( 5000)    | 4940 ( 159354)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURON                      | 114056 ( 3679226) |                 |                  |                | 114056 ( 3679226)  |
| PO. POINT                       | 3221 ( 103903)    | 5045 ( 162742)  | 29444 ( 962710)  | 2499 ( 80613)  | 40609 ( 1309968)   |
| TOTAL                           | 169959 ( 5482548) | 5075 ( 163710)  | 10465 ( 337581)  | 2170 ( 70000)  | 187669 ( 6038839)  |
|                                 | 287236 ( 9265677) | 10120 ( 326452) | 40309 ( 1300291) | 4669 ( 150613) | 342334 ( 11043033) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURON                      | 16842 ( 543290)   |                 |                  |                | 16842 ( 543290)    |
| PO. POINT                       | 545 ( 17581)      | 388 ( 12516)    | 677 ( 21839)     | 401 ( 12935)   | 2011 ( 64371)      |
| TOTAL                           | 658 ( 21226)      | 165 ( 5323)     | 309 ( 9968)      | 68 ( 2194)     | 1200 ( 38711)      |
|                                 | 18045 ( 582097)   | 553 ( 17839)    | 986 ( 31607)     | 469 ( 15129)   | 20053 ( 646872)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1974  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DE/ST. CLW BASIN  | WESTERN BASIN  | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                  |                |                    |
| LAKE MURUM                      | 267 ( 8900)       | 0 ( 0)         | 3 ( 100)         | 13 ( 433)      | 267 ( 8900)        |
| MUR. POINT                      | 31 ( 1033)        | 48 ( 1600)     | 145 ( 4833)      | 32 ( 1067)     | 47 ( 1566)         |
| POINT                           | 472 ( 15733)      | 48 ( 1600)     | 148 ( 4933)      | 45 ( 1500)     | 697 ( 23233)       |
| TOTAL                           | 770 ( 25666)      |                |                  |                | 1011 ( 33699)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                |                  |                |                    |
| LAKE MURUM                      | 63 ( 2100)        | 1 ( 33)        | 2 ( 67)          | 2 ( 67)        | 63 ( 2100)         |
| MUR. POINT                      | 8 ( 267)          | 24 ( 800)      | 58 ( 1933)       | 16 ( 533)      | 13 ( 434)          |
| POINT                           | 237 ( 7900)       | 25 ( 833)      | 60 ( 2000)       | 18 ( 600)      | 335 ( 11166)       |
| TOTAL                           | 308 ( 10267)      |                |                  |                | 411 ( 13700)       |
| <b>NITRATE-NITRATE NITROGEN</b> |                   |                |                  |                |                    |
| LAKE MURUM                      | 4515 ( 150500)    | 5 ( 167)       | 195 ( 6500)      | 38 ( 1267)     | 4515 ( 150500)     |
| MUR. POINT                      | 92 ( 3067)        | 169 ( 5633)    | 312 ( 10400)     | 86 ( 2867)     | 330 ( 11001)       |
| POINT                           | 834 ( 27800)      | 174 ( 5800)    | 507 ( 16900)     | 124 ( 4134)    | 1401 ( 46700)      |
| TOTAL                           | 5441 ( 181367)    |                |                  |                | 6246 ( 208201)     |
| <b>AMMONIA NITROGEN</b>         |                   |                |                  |                |                    |
| LAKE MURUM                      | 298 ( 9933)       | 0 ( 0)         | 10 ( 333)        | 1 ( 33)        | 298 ( 9933)        |
| MUR. POINT                      | 14 ( 467)         | 133 ( 4433)    | 274 ( 9133)      | 70 ( 2333)     | 25 ( 833)          |
| POINT                           | 955 ( 31633)      | 133 ( 4433)    | 284 ( 9466)      | 71 ( 2366)     | 1432 ( 47732)      |
| TOTAL                           | 1267 ( 42233)     |                |                  |                | 1755 ( 58498)      |
| <b>ORGANIC NITROGEN</b>         |                   |                |                  |                |                    |
| LAKE MURUM                      | 3916 ( 130533)    | 4 ( 133)       | 38 ( 1267)       | 123 ( 4100)    | 3916 ( 130533)     |
| MUR. POINT                      | 77 ( 2567)        | 56 ( 1867)     | 121 ( 4033)      | 24 ( 967)      | 242 ( 8067)        |
| POINT                           | 295 ( 9833)       | 60 ( 2000)     | 159 ( 5300)      | 152 ( 5067)    | 501 ( 16700)       |
| TOTAL                           | 4288 ( 142933)    |                |                  |                | 4659 ( 155300)     |
| <b>CHLORINE</b>                 |                   |                |                  |                |                    |
| LAKE MURUM                      | 108068 ( 3602267) | 3034 ( 101133) | 36111 ( 1203700) | 2511 ( 83700)  | 108068 ( 3602267)  |
| MUR. POINT                      | 1937 ( 64567)     | 4896 ( 163200) | 10126 ( 337533)  | 2101 ( 70033)  | 43593 ( 1453100)   |
| POINT                           | 164157 ( 5471900) | 7930 ( 264333) | 46237 ( 1541233) | 4612 ( 153733) | 161260 ( 6042666)  |
| TOTAL                           | 274162 ( 9158734) |                |                  |                | 332941 ( 11098033) |
| <b>SILICA</b>                   |                   |                |                  |                |                    |
| LAKE MURUM                      | 15958 ( 531933)   | 321 ( 10700)   | 659 ( 21967)     | 452 ( 15067)   | 15958 ( 531933)    |
| MUR. POINT                      | 434 ( 14467)      | 157 ( 5233)    | 299 ( 9967)      | 65 ( 2167)     | 1666 ( 62201)      |
| POINT                           | 637 ( 21233)      | 478 ( 15933)   | 958 ( 31934)     | 517 ( 17234)   | 1158 ( 38600)      |
| TOTAL                           | 17029 ( 567633)   |                |                  |                | 14982 ( 632734)    |

# WASIS LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1974 (AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN | CENTRAL BASIN | EASTERN BASIN | TOTAL              |
|---------------------------------|---------------|---------------|---------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |               |               |               |                    |
| LAKE MURDOCK                    | 268 ( 8645)   |               |               | 268 ( 8645)        |
| CO. POINT                       | 57 ( 1838)    |               |               | 57 ( 1838)         |
| P. POINT                        | 709 ( 22871)  | 16 ( 516)     |               | 709 ( 22871)       |
| TOTAL                           | 1034 ( 33354) | 33 ( 1065)    |               | 1034 ( 33354)      |
| <b>ORTHU PHOSPHORUS</b>         |               |               |               |                    |
| LAKE MURDOCK                    |               |               |               | 64 ( 2065)         |
| CO. POINT                       |               |               |               | 20 ( 645)          |
| P. POINT                        |               |               |               | 348 ( 11096)       |
| TOTAL                           |               |               |               | 426 ( 13806)       |
| <b>NITRATE-NITRITE NITROGEN</b> |               |               |               |                    |
| LAKE MURDOCK                    |               |               |               | 4546 ( 146645)     |
| CO. POINT                       |               |               |               | 327 ( 10548)       |
| P. POINT                        |               |               |               | 1411 ( 45516)      |
| TOTAL                           |               |               |               | 6284 ( 202709)     |
| <b>AMMONIA NITROGEN</b>         |               |               |               |                    |
| LAKE MURDOCK                    |               |               |               | 300 ( 9677)        |
| CO. POINT                       |               |               |               | 35 ( 1128)         |
| P. POINT                        |               |               |               | 1473 ( 47516)      |
| TOTAL                           |               |               |               | 1808 ( 58321)      |
| <b>ORGANIC NITROGEN</b>         |               |               |               |                    |
| LAKE MURDOCK                    |               |               |               | 3942 ( 127161)     |
| CO. POINT                       |               |               |               | 276 ( 8903)        |
| P. POINT                        |               |               |               | 504 ( 16258)       |
| TOTAL                           |               |               |               | 4722 ( 152322)     |
| <b>CHLORIDE</b>                 |               |               |               |                    |
| LAKE MURDOCK                    |               |               |               | 108807 ( 3509903)  |
| CO. POINT                       |               |               |               | 54798 ( 1767617)   |
| P. POINT                        |               |               |               | 185435 ( 5981775)  |
| TOTAL                           |               |               |               | 349040 ( 11259355) |
| <b>SILICA</b>                   |               |               |               |                    |
| LAKE MURDOCK                    |               |               |               | 16067 ( 518290)    |
| CO. POINT                       |               |               |               | 1632 ( 59098)      |
| P. POINT                        |               |               |               | 1196 ( 38582)      |
| TOTAL                           |               |               |               | 19095 ( 615970)    |

BASED LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1974  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLM BASIN | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                   |                |                    |
| LAKE MURDO                      | 255 ( 8500)       |                 |                   |                | 255 ( 8500)        |
| NO. POINT                       | 56 ( 1867)        | 1 ( 33)         | 175 ( 5767)       | 53 ( 1767)     | 283 ( 9434)        |
| POLIT                           | 475 ( 15833)      | 60 ( 2000)      | 169 ( 5633)       | 34 ( 1133)     | 738 ( 24599)       |
| TOTAL                           | 786 ( 26200)      | 61 ( 2033)      | 342 ( 11400)      | 87 ( 2900)     | 1276 ( 42533)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                   |                |                    |
| LAKE MURDO                      | 60 ( 2000)        |                 |                   |                | 60 ( 2000)         |
| NO. POINT                       | 19 ( 633)         | 4 ( 133)        | 18 ( 600)         | 6 ( 200)       | 47 ( 1566)         |
| POLIT                           | 259 ( 7967)       | 26 ( 867)       | 77 ( 2567)        | 17 ( 567)      | 359 ( 11960)       |
| TOTAL                           | 318 ( 10600)      | 30 ( 1000)      | 95 ( 3167)        | 23 ( 767)      | 466 ( 15534)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                   |                |                    |
| LAKE MURDO                      | 4322 ( 144067)    |                 |                   |                | 4322 ( 144067)     |
| NO. POINT                       | 458 ( 15267)      | 206 ( 6867)     | 1056 ( 35200)     | 315 ( 10500)   | 2035 ( 67834)      |
| POLIT                           | 840 ( 28000)      | 101 ( 6033)     | 313 ( 10433)      | 86 ( 2867)     | 1420 ( 47333)      |
| TOTAL                           | 5620 ( 187334)    | 307 ( 12900)    | 1369 ( 45633)     | 401 ( 13367)   | 7777 ( 259234)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                   |                |                    |
| LAKE MURDO                      | 285 ( 9500)       |                 |                   |                | 285 ( 9500)        |
| NO. POINT                       | 52 ( 1067)        | 2 ( 67)         | 267 ( 8900)       | 39 ( 1300)     | 340 ( 11334)       |
| POLIT                           | 900 ( 32000)      | 150 ( 5000)     | 323 ( 10767)      | 76 ( 2600)     | 1511 ( 50367)      |
| TOTAL                           | 1277 ( 42567)     | 152 ( 5067)     | 590 ( 19667)      | 117 ( 3900)    | 2136 ( 71201)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                   |                |                    |
| LAKE MURDO                      | 5744 ( 120933)    |                 |                   |                | 5744 ( 120933)     |
| NO. POINT                       | 145 ( 4833)       | 20 ( 667)       | 495 ( 16500)      | 336 ( 11267)   | 996 ( 33267)       |
| POLIT                           | 247 ( 9900)       | 64 ( 2267)      | 125 ( 4167)       | 29 ( 967)      | 519 ( 17301)       |
| TOTAL                           | 4190 ( 139666)    | 84 ( 2934)      | 620 ( 20667)      | 367 ( 12234)   | 5265 ( 175501)     |
| <b>CHLORIDE</b>                 |                   |                 |                   |                |                    |
| LAKE MURDO                      | 103449 ( 3448300) |                 |                   |                | 103449 ( 3448300)  |
| NO. POINT                       | 6543 ( 211333)    | 4222 ( 274067)  | 10030 ( 3364333)  | 5336 ( 177867) | 120628 ( 4027600)  |
| POLIT                           | 166721 ( 557367)  | 5095 ( 169633)  | 10128 ( 337600)   | 2101 ( 70033)  | 184045 ( 6134833)  |
| TOTAL                           | 276510 ( 9217000) | 13317 ( 443900) | 111558 ( 3701933) | 7437 ( 247900) | 406322 ( 13610733) |
| <b>SILICA</b>                   |                   |                 |                   |                |                    |
| LAKE MURDO                      | 15276 ( 509200)   |                 |                   |                | 15276 ( 509200)    |
| NO. POINT                       | 950 ( 31667)      | 705 ( 23500)    | 5576 ( 119200)    | 1359 ( 45300)  | 6590 ( 219667)     |
| POLIT                           | 637 ( 21233)      | 159 ( 5300)     | 299 ( 9967)       | 65 ( 2167)     | 1160 ( 38667)      |
| TOTAL                           | 16464 ( 562100)   | 864 ( 28800)    | 5875 ( 129167)    | 1424 ( 47467)  | 23026 ( 767534)    |

# BASIN LOADINGS IN METRIC TONS PER MONTH FOR DECEMBER, 1974 (AVE DAILY LOADS IN KG/DAY)

|                                 | 12/1/ST. CLM BASIN | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|-----------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 258 ( 8323)        | 248 ( 7935)     | 305 ( 9439)       | 35 ( 1129)     | 258 ( 8323)        |
| POW. POINT                      | 68 ( 2194)         | 85 ( 2742)      | 179 ( 5774)       | 36 ( 1161)     | 654 ( 21097)       |
| TOTAL                           | 404 ( 15935)       | 331 ( 10677)    | 484 ( 15613)      | 71 ( 2290)     | 794 ( 25612)       |
|                                 | 420 ( 26052)       |                 |                   |                | 1704 ( 55032)      |
| <b>ORTHOPHOSPHORUS</b>          |                    |                 |                   |                |                    |
| LAKE MURDO                      | 61 ( 1968)         | 31 ( 1000)      | 50 ( 1613)        | 4 ( 129)       | 61 ( 1968)         |
| POW. POINT                      | 18 ( 581)          | 43 ( 1387)      | 87 ( 2806)        | 17 ( 548)      | 103 ( 3323)        |
| TOTAL                           | 249 ( 8000)        | 74 ( 2387)      | 137 ( 4419)       | 21 ( 677)      | 395 ( 12741)       |
|                                 | 327 ( 10509)       |                 |                   |                | 559 ( 18032)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                    |                 |                   |                |                    |
| LAKE MURDO                      | 4366 ( 140839)     | 3028 ( 97677)   | 3771 ( 121645)    | 202 ( 6516)    | 4366 ( 140839)     |
| POW. POINT                      | 750 ( 24323)       | 195 ( 6226)     | 323 ( 10419)      | 90 ( 2903)     | 7755 ( 250161)     |
| TOTAL                           | 5988 ( 28000)      | 3221 ( 103903)  | 4094 ( 132064)    | 292 ( 9419)    | 1474 ( 47548)      |
|                                 | 5988 ( 193162)     |                 |                   |                | 13595 ( 436548)    |
| <b>AMMONIA-NITROGEN</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 244 ( 9240)        | 6 ( 194)        | 278 ( 8968)       | 23 ( 742)      | 248 ( 9290)        |
| POW. POINT                      | 32 ( 1032)         | 191 ( 6161)     | 368 ( 11871)      | 75 ( 2419)     | 339 ( 10936)       |
| TOTAL                           | 995 ( 32097)       | 197 ( 6355)     | 646 ( 20839)      | 98 ( 3161)     | 1629 ( 52548)      |
|                                 | 1315 ( 42019)      |                 |                   |                | 2256 ( 72774)      |
| <b>ORGANIC-NITROGEN</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 3787 ( 122161)     | 230 ( 7419)     | 868 ( 28000)      | 297 ( 9581)    | 3787 ( 122161)     |
| POW. POINT                      | 199 ( 6419)        | 73 ( 2355)      | 129 ( 4161)       | 31 ( 1000)     | 1594 ( 51419)      |
| TOTAL                           | 307 ( 9903)        | 303 ( 9774)     | 997 ( 32161)      | 328 ( 10581)   | 540 ( 17419)       |
|                                 | 4293 ( 138483)     |                 |                   |                | 5921 ( 190999)     |
| <b>CHLORIDE</b>                 |                    |                 |                   |                |                    |
| LAKE MURDO                      | 104512 ( 3371355)  | 23591 ( 761000) | 165084 ( 5325290) | 4733 ( 152677) | 104512 ( 3371355)  |
| POW. POINT                      | 6981 ( 229716)     | 5265 ( 169839)  | 10466 ( 337613)   | 2170 ( 70000)  | 202389 ( 6524677)  |
| TOTAL                           | 173678 ( 5602516)  | 28856 ( 930839) | 175550 ( 5662903) | 6903 ( 222677) | 191579 ( 6179468)  |
|                                 | 287171 ( 9263581)  |                 |                   |                | 494480 ( 16080000) |
| <b>SILICA</b>                   |                    |                 |                   |                |                    |
| LAKE MURDO                      | 15432 ( 497806)    | 5915 ( 190806)  | 7390 ( 238387)    | 1305 ( 42097)  | 15432 ( 497806)    |
| POW. POINT                      | 1300 ( 41935)      | 165 ( 5323)     | 309 ( 9968)       | 68 ( 2194)     | 15910 ( 513225)    |
| TOTAL                           | 658 ( 21226)       | 6080 ( 196129)  | 7699 ( 248355)    | 1373 ( 44291)  | 1200 ( 38711)      |
|                                 | 17390 ( 560967)    |                 |                   |                | 32542 ( 1049742)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JANUARY, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLK. BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 167 ( 5387)        | 476 ( 15355)     | 404 ( 13032)      | 99 ( 3194)     | 167 ( 5387)        |
| NO. POINT                       | 287 ( 9258)        | 76 ( 2452)       | 170 ( 5484)       | 32 ( 1032)     | 1266 ( 40839)      |
| POINT                           | 525 ( 16935)       | 76 ( 2452)       | 574 ( 18516)      | 131 ( 4226)    | 803 ( 25903)       |
| TOTAL                           | 979 ( 31580)       | 552 ( 17807)     |                   |                | 2236 ( 72129)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 94 ( 1419)         | 104 ( 3355)      | 65 ( 2097)        | 8 ( 258)       | 44 ( 1419)         |
| NO. POINT                       | 69 ( 2226)         | 38 ( 1226)       | 79 ( 2508)        | 16 ( 516)      | 246 ( 7936)        |
| POINT                           | 261 ( 8419)        | 142 ( 4581)      | 144 ( 4645)       | 24 ( 774)      | 394 ( 12709)       |
| TOTAL                           | 374 ( 12064)       |                  |                   |                | 684 ( 22064)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 3928 ( 126710)     | 5103 ( 164613)   | 3083 ( 99452)     | 546 ( 17613)   | 3928 ( 126710)     |
| NO. POINT                       | 3199 ( 103190)     | 205 ( 6613)      | 295 ( 9516)       | 90 ( 2903)     | 11931 ( 384872)    |
| POINT                           | 439 ( 30290)       | 5308 ( 171226)   | 3378 ( 108968)    | 636 ( 20516)   | 1529 ( 49322)      |
| TOTAL                           | 8066 ( 260194)     |                  |                   |                | 17368 ( 560904)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 175 ( 5645)        | 183 ( 5903)      | 351 ( 11323)      | 37 ( 1194)     | 175 ( 5645)        |
| NO. POINT                       | 165 ( 5323)        | 258 ( 8323)      | 401 ( 12935)      | 87 ( 2806)     | 736 ( 23743)       |
| POINT                           | 1028 ( 35097)      | 441 ( 14226)     | 752 ( 24258)      | 124 ( 4000)    | 1834 ( 59161)      |
| TOTAL                           | 1428 ( 46665)      |                  |                   |                | 2745 ( 88549)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 2742 ( 88452)      | 759 ( 24484)     | 962 ( 31032)      | 362 ( 11677)   | 2742 ( 88452)      |
| NO. POINT                       | 456 ( 27613)       | 77 ( 2484)       | 127 ( 4097)       | 31 ( 1000)     | 2939 ( 94806)      |
| POINT                           | 331 ( 10677)       | 836 ( 26968)     | 1684 ( 55129)     | 393 ( 12677)   | 566 ( 16258)       |
| TOTAL                           | 3929 ( 126742)     |                  |                   |                | 624 ( 201516)      |
| <b>CHLORIDE</b>                 |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 49659 ( 2842226)   | 47954 ( 1546903) | 119345 ( 3849839) | 7515 ( 242419) | 89659 ( 2892226)   |
| NO. POINT                       | 46138 ( 1483523)   | 5274 ( 170124)   | 10354 ( 33000)    | 2170 ( 70000)  | 220952 ( 7127484)  |
| POINT                           | 175364 ( 5655903)  | 53228 ( 1717032) | 124699 ( 4183839) | 9685 ( 312419) | 193162 ( 6231032)  |
| TOTAL                           | 311161 ( 10037452) |                  |                   |                | 503773 ( 16250742) |
| <b>SILICA</b>                   |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 16940 ( 547742)    | 8834 ( 284968)   | 7660 ( 247097)    | 2087 ( 67323)  | 16940 ( 547742)    |
| NO. POINT                       | 4272 ( 137806)     | 165 ( 5323)      | 305 ( 9639)       | 68 ( 2194)     | 22653 ( 737194)    |
| POINT                           | 711 ( 22935)       | 8949 ( 290291)   | 7465 ( 250936)    | 2155 ( 69517)  | 1249 ( 40291)      |
| TOTAL                           | 21963 ( 708483)    |                  |                   |                | 41082 ( 1325227)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                | DET/ST. CLR BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL             |
|--------------------------------|-------------------|------------------|-------------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                  |                   |                 |                   |
| LAKE MURPHY                    | 148 ( 5286)       | 736 ( 26286)     | 548 ( 19571)      | 129 ( 4607)     | 148 ( 5286)       |
| POINTE POINT                   | 312 ( 11143)      | 69 ( 2464)       | 153 ( 5464)       | 28 ( 1000)      | 1725 ( 61607)     |
| TOTAL                          | 460 ( 16229)      | 805 ( 28750)     | 701 ( 25035)      | 157 ( 5607)     | 724 ( 25857)      |
| <b>UNITED PHOSPHORUS</b>       |                   |                  |                   |                 |                   |
| LAKE MURPHY                    | 39 ( 1393)        | 172 ( 6143)      | 74 ( 2643)        | 11 ( 393)       | 39 ( 1393)        |
| POINTE POINT                   | 65 ( 2321)        | 34 ( 1214)       | 71 ( 2536)        | 14 ( 500)       | 322 ( 11500)      |
| TOTAL                          | 235 ( 8493)       | 206 ( 7357)      | 145 ( 5179)       | 25 ( 893)       | 350 ( 12643)      |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                  |                   |                 |                   |
| LAKE MURPHY                    | 3482 ( 124357)    | 4922 ( 175786)   | 3181 ( 113607)    | 639 ( 22821)    | 3482 ( 124357)    |
| POINTE POINT                   | 2405 ( 103750)    | 185 ( 6607)      | 266 ( 9500)       | 81 ( 2893)      | 11647 ( 415964)   |
| TOTAL                          | 5887 ( 228107)    | 5007 ( 182393)   | 3447 ( 123107)    | 720 ( 25714)    | 1380 ( 49286)     |
| <b>AMMONIA NITROGEN</b>        |                   |                  |                   |                 |                   |
| LAKE MURPHY                    | 155 ( 5536)       | 224 ( 8179)      | 433 ( 15464)      | 48 ( 1714)      | 155 ( 5536)       |
| POINTE POINT                   | 169 ( 6036)       | 233 ( 8321)      | 364 ( 13000)      | 82 ( 2929)      | 879 ( 31393)      |
| TOTAL                          | 324 ( 11572)      | 457 ( 16500)     | 797 ( 28464)      | 130 ( 4643)     | 1660 ( 59286)     |
| <b>ORGANIC NITROGEN</b>        |                   |                  |                   |                 |                   |
| LAKE MURPHY                    | 2430 ( 86786)     | 1213 ( 43321)    | 1083 ( 38679)     | 433 ( 15464)    | 2430 ( 86786)     |
| POINTE POINT                   | 818 ( 29214)      | 69 ( 2464)       | 115 ( 4107)       | 27 ( 964)       | 3547 ( 126678)    |
| TOTAL                          | 3248 ( 115900)    | 1282 ( 45785)    | 1198 ( 42786)     | 460 ( 16428)    | 510 ( 18214)      |
| <b>CHLORIDE</b>                |                   |                  |                   |                 |                   |
| LAKE MURPHY                    | 79469 ( 2838179)  | 55137 ( 1969179) | 111667 ( 3988107) | 8664 ( 309424)  | 79469 ( 2838179)  |
| POINTE POINT                   | 48061 ( 1716864)  | 4763 ( 170107)   | 9352 ( 334000)    | 1961 ( 70036)   | 223529 ( 7983179) |
| TOTAL                          | 127530 ( 4555043) | 59800 ( 2139286) | 121019 ( 4322107) | 10625 ( 379465) | 174470 ( 6231072) |
| <b>SILICA</b>                  |                   |                  |                   |                 |                   |
| LAKE MURPHY                    | 15050 ( 537500)   | 10230 ( 365357)  | 8354 ( 298357)    | 2309 ( 82464)   | 15050 ( 537500)   |
| POINTE POINT                   | 3998 ( 142786)    | 149 ( 5321)      | 275 ( 9821)       | 61 ( 2179)      | 24891 ( 888964)   |
| TOTAL                          | 19048 ( 703286)   | 10379 ( 370678)  | 8629 ( 306178)    | 2370 ( 84643)   | 1128 ( 40285)     |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DEI/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURKIN                     | 164 ( 5290)        |                  |                   |                 | 164 ( 5290)        |
| RUN POINT                       | 507 ( 16355)       | 247 ( 7668)      | 355 ( 11452)      | 251 ( 8097)     | 1360 ( 43872)      |
| POINT                           | 529 ( 17065)       | 77 ( 2484)       | 170 ( 5484)       | 32 ( 1032)      | 800 ( 26065)       |
| TOTAL                           | 1200 ( 38710)      | 324 ( 10452)     | 525 ( 16936)      | 283 ( 9129)     | 2332 ( 75227)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURKIN                     | 44 ( 1419)         |                  |                   |                 | 44 ( 1419)         |
| RUN POINT                       | 110 ( 3548)        | 80 ( 2581)       | 65 ( 2097)        | 33 ( 1065)      | 288 ( 9291)        |
| POINT                           | 203 ( 6484)        | 38 ( 1226)       | 83 ( 2677)        | 16 ( 516)       | 400 ( 12903)       |
| TOTAL                           | 417 ( 13451)       | 118 ( 3807)      | 148 ( 4774)       | 49 ( 1581)      | 732 ( 23613)       |
| <b>NITRATE-NITRILE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURKIN                     | 3873 ( 124935)     |                  |                   |                 | 3873 ( 124935)     |
| RUN POINT                       | 4908 ( 158323)     | 4642 ( 149742)   | 3042 ( 96129)     | 1461 ( 47129)   | 14053 ( 453323)    |
| POINT                           | 939 ( 30290)       | 205 ( 6613)      | 205 ( 9516)       | 90 ( 2903)      | 1529 ( 49322)      |
| TOTAL                           | 9720 ( 313548)     | 4847 ( 156355)   | 3337 ( 107645)    | 1551 ( 50032)   | 19455 ( 627580)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURKIN                     | 173 ( 5581)        |                  |                   |                 | 173 ( 5581)        |
| RUN POINT                       | 284 ( 9161)        | 163 ( 5258)      | 358 ( 11548)      | 81 ( 2613)      | 886 ( 28580)       |
| POINT                           | 1091 ( 35194)      | 253 ( 8161)      | 416 ( 13419)      | 107 ( 3452)     | 1867 ( 60226)      |
| TOTAL                           | 1548 ( 49936)      | 416 ( 13419)     | 774 ( 24967)      | 188 ( 6065)     | 2926 ( 94387)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURKIN                     | 2703 ( 87194)      |                  |                   |                 | 2703 ( 87194)      |
| RUN POINT                       | 1307 ( 42161)      | 556 ( 17935)     | 1015 ( 32742)     | 555 ( 17903)    | 3433 ( 110741)     |
| POINT                           | 331 ( 10677)       | 77 ( 2484)       | 127 ( 4097)       | 31 ( 1000)      | 566 ( 18258)       |
| TOTAL                           | 4341 ( 140032)     | 633 ( 20419)     | 1142 ( 36839)     | 586 ( 18903)    | 6702 ( 216193)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURKIN                     | 88403 ( 2851710)   |                  |                   |                 | 88403 ( 2851710)   |
| RUN POINT                       | 54173 ( 1747516)   | 47836 ( 1543097) | 130415 ( 4206935) | 16942 ( 546516) | 249366 ( 8044068)  |
| POINT                           | 175364 ( 5656903)  | 5274 ( 170124)   | 10354 ( 334000)   | 2170 ( 70000)   | 193162 ( 6231032)  |
| TOTAL                           | 317940 ( 10256124) | 53110 ( 1713226) | 140769 ( 4540935) | 19112 ( 616516) | 530931 ( 17126806) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURKIN                     | 16742 ( 540045)    |                  |                   |                 | 16742 ( 540045)    |
| RUN POINT                       | 6312 ( 203613)     | 8525 ( 275000)   | 7762 ( 250387)    | 4051 ( 130677)  | 26650 ( 859677)    |
| POINT                           | 711 ( 22935)       | 165 ( 5323)      | 305 ( 9839)       | 68 ( 2194)      | 1249 ( 40291)      |
| TOTAL                           | 23765 ( 766613)    | 8690 ( 280323)   | 8067 ( 260226)    | 4119 ( 132871)  | 44641 ( 1440033)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DE/ST. CLM BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN    | TOTAL              |
|---------------------------------|-------------------|------------------|-------------------|------------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                   |                  |                    |
| LAKE MURDOCK                    | 163 ( 5433)       | 180 ( 6000)      | 49 ( 1633)        | 421 ( 14033)     | 163 ( 5433)        |
| DOWN POINT                      | 469 ( 15633)      | 76 ( 2533)       | 155 ( 5167)       | 30 ( 1000)       | 1119 ( 37299)      |
| POINT                           | 511 ( 17033)      | 256 ( 8533)      | 204 ( 6800)       | 451 ( 15033)     | 1772 ( 57733)      |
| TOTAL                           | 1103 ( 34099)     | 512 ( 17067)     | 408 ( 13467)      | 902 ( 29866)     | 2054 ( 68465)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                  |                   |                  |                    |
| LAKE MURDOCK                    | 44 ( 1467)        | 60 ( 2000)       | 14 ( 467)         | 45 ( 1500)       | 44 ( 1467)         |
| DOWN POINT                      | 104 ( 3467)       | 37 ( 1233)       | 61 ( 2033)        | 15 ( 500)        | 223 ( 7434)        |
| POINT                           | 256 ( 8533)       | 97 ( 3233)       | 75 ( 2500)        | 60 ( 2000)       | 369 ( 12299)       |
| TOTAL                           | 404 ( 13467)      | 194 ( 6467)      | 150 ( 5000)       | 120 ( 4000)      | 636 ( 21200)       |
| <b>NITRATE-NITRILE NITROGEN</b> |                   |                  |                   |                  |                    |
| LAKE MURDOCK                    | 3855 ( 128500)    | 7498 ( 116600)   | 780 ( 26000)      | 1674 ( 55800)    | 3855 ( 128500)     |
| DOWN POINT                      | 4868 ( 162267)    | 198 ( 6600)      | 285 ( 9500)       | 86 ( 2867)       | 10820 ( 360667)    |
| POINT                           | 903 ( 30267)      | 3696 ( 123200)   | 1065 ( 35500)     | 1760 ( 58667)    | 1477 ( 49234)      |
| TOTAL                           | 9631 ( 321034)    | 11862 ( 395800)  | 3690 ( 122500)    | 2520 ( 83334)    | 16152 ( 538601)    |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                   |                  |                    |
| LAKE MURDOCK                    | 172 ( 5733)       | 128 ( 4267)      | 70 ( 2333)        | 102 ( 3400)      | 172 ( 5733)        |
| DOWN POINT                      | 246 ( 8167)       | 242 ( 8067)      | 322 ( 10733)      | 104 ( 3467)      | 586 ( 19533)       |
| POINT                           | 1062 ( 35400)     | 370 ( 12334)     | 392 ( 13066)      | 206 ( 6867)      | 1730 ( 57667)      |
| TOTAL                           | 1520 ( 50666)     | 740 ( 24667)     | 764 ( 25733)      | 412 ( 13734)     | 2488 ( 82933)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                   |                  |                    |
| LAKE MURDOCK                    | 2690 ( 89667)     | 463 ( 15433)     | 243 ( 8100)       | 653 ( 21767)     | 2690 ( 89667)      |
| DOWN POINT                      | 1339 ( 44633)     | 74 ( 2467)       | 123 ( 4100)       | 29 ( 967)        | 2698 ( 89933)      |
| POINT                           | 321 ( 10700)      | 537 ( 17900)     | 366 ( 12200)      | 682 ( 22734)     | 547 ( 18234)       |
| TOTAL                           | 4350 ( 145000)    | 1074 ( 35797)    | 732 ( 24400)      | 1364 ( 45467)    | 5935 ( 197834)     |
| <b>CHLORIDE</b>                 |                   |                  |                   |                  |                    |
| LAKE MURDOCK                    | 8784 ( 2932800)   | 41934 ( 1397900) | 89871 ( 2995700)  | 20207 ( 673567)  | 8784 ( 2932800)    |
| DOWN POINT                      | 7065 ( 2355500)   | 5104 ( 170133)   | 10019 ( 333967)   | 2101 ( 70033)    | 22267 ( 7422567)   |
| POINT                           | 16970 ( 5656933)  | 47036 ( 1567933) | 99890 ( 3329667)  | 22308 ( 743600)  | 186932 ( 6231066)  |
| TOTAL                           | 32835 ( 10945233) | 93074 ( 3096133) | 200960 ( 6665267) | 44516 ( 1487533) | 497593 ( 16586433) |
| <b>SILICA</b>                   |                   |                  |                   |                  |                    |
| LAKE MURDOCK                    | 16662 ( 555400)   | 6875 ( 229167)   | 1972 ( 65733)     | 4426 ( 147533)   | 16662 ( 555400)    |
| DOWN POINT                      | 7137 ( 237900)    | 154 ( 5100)      | 295 ( 9833)       | 65 ( 2167)       | 20410 ( 680333)    |
| POINT                           | 688 ( 22933)      | 7034 ( 234467)   | 2267 ( 75566)     | 4491 ( 149700)   | 1207 ( 40233)      |
| TOTAL                           | 24487 ( 816233)   | 8563 ( 285733)   | 2564 ( 85133)     | 4942 ( 165400)   | 38279 ( 1275966)   |

WATER LOADINGS IN METRIC TONS PER MONTH FOR MAY, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|------------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                   |                |                    |
| LAKE MURUM                      | 176 ( 5677)       | 397 ( 12806)     | 65 ( 2097)        | 49 ( 1581)     | 176 ( 5677)        |
| AD. POINT                       | 68 ( 2194)        | 75 ( 2419)       | 170 ( 5484)       | 32 ( 1032)     | 579 ( 18678)       |
| POINT                           | 515 ( 16613)      | 472 ( 15225)     | 235 ( 7581)       | 81 ( 2613)     | 792 ( 25548)       |
| TOTAL                           | 759 ( 24484)      |                  |                   |                | 1547 ( 49903)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                  |                   |                |                    |
| LAKE MURUM                      | 47 ( 1516)        | 68 ( 2194)       | 17 ( 548)         | 10 ( 323)      | 47 ( 1516)         |
| AD. POINT                       | 21 ( 677)         | 38 ( 1226)       | 69 ( 2226)        | 15 ( 484)      | 116 ( 3742)        |
| POINT                           | 259 ( 8355)       | 106 ( 3420)      | 86 ( 2774)        | 25 ( 807)      | 381 ( 12291)       |
| TOTAL                           | 327 ( 10548)      |                  |                   |                | 544 ( 17549)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                  |                   |                |                    |
| LAKE MURUM                      | 4149 ( 133839)    | 4792 ( 154581)   | 994 ( 32065)      | 484 ( 14323)   | 4149 ( 133839)     |
| AD. POINT                       | 817 ( 26355)      | 201 ( 6484)      | 295 ( 9516)       | 90 ( 2903)     | 7047 ( 227324)     |
| POINT                           | 939 ( 30290)      | 4993 ( 161065)   | 1289 ( 41581)     | 534 ( 17226)   | 1525 ( 49193)      |
| TOTAL                           | 5905 ( 190444)    |                  |                   |                | 12721 ( 410356)    |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                   |                |                    |
| LAKE MURUM                      | 185 ( 5968)       | 24 ( 774)        | 38 ( 1226)        | 26 ( 834)      | 185 ( 5968)        |
| AD. POINT                       | 36 ( 1161)        | 219 ( 7065)      | 349 ( 11258)      | 91 ( 2935)     | 124 ( 4000)        |
| POINT                           | 1082 ( 34903)     | 243 ( 7839)      | 387 ( 12484)      | 117 ( 3774)    | 1741 ( 56161)      |
| TOTAL                           | 1353 ( 42932)     |                  |                   |                | 2050 ( 66129)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                   |                |                    |
| LAKE MURUM                      | 2495 ( 93387)     | 386 ( 12452)     | 258 ( 8323)       | 272 ( 8774)    | 2495 ( 93387)      |
| AD. POINT                       | 260 ( 8387)       | 76 ( 2452)       | 127 ( 4097)       | 31 ( 1000)     | 1176 ( 37936)      |
| POINT                           | 3486 ( 112451)    | 462 ( 14904)     | 395 ( 12420)      | 303 ( 9774)    | 565 ( 18226)       |
| TOTAL                           |                   |                  |                   |                | 4636 ( 149549)     |
| <b>CHLORIDE</b>                 |                   |                  |                   |                |                    |
| LAKE MURUM                      | 94687 ( 3054419)  | 35078 ( 1131546) | 11272 ( 3637806)  | 6294 ( 203194) | 94687 ( 3054419)   |
| AD. POINT                       | 22264 ( 718194)   | 5274 ( 170129)   | 10354 ( 334000)   | 2170 ( 70000)  | 176413 ( 5690742)  |
| POINT                           | 175364 ( 5656903) | 40352 ( 1301677) | 125126 ( 3971606) | 8469 ( 273194) | 193162 ( 6231032)  |
| TOTAL                           | 292315 ( 9429516) |                  |                   |                | 464262 ( 14976193) |
| <b>SILICA</b>                   |                   |                  |                   |                |                    |
| LAKE MURUM                      | 17932 ( 578452)   | 9349 ( 301581)   | 2491 ( 86806)     | 1329 ( 42871)  | 17932 ( 578452)    |
| AD. POINT                       | 1632 ( 52645)     | 165 ( 5323)      | 305 ( 9839)       | 68 ( 2194)     | 15001 ( 483903)    |
| POINT                           | 711 ( 22935)      | 9514 ( 306904)   | 2946 ( 96645)     | 1397 ( 45065)  | 1249 ( 40291)      |
| TOTAL                           | 20275 ( 651032)   |                  |                   |                | 34182 ( 1102646)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JUNE, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     |                  |  | CENTRAL BASIN     |  |  | EASTERN BASIN  |  |  | TOTAL              |
|---------------------------------|-------------------|------------------|--|-------------------|--|--|----------------|--|--|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |  |                   |  |  |                |  |  |                    |
| LAKE MURUM                      | 172 ( 5733)       |                  |  |                   |  |  |                |  |  | 172 ( 5733)        |
| POW. POINT                      | 79 ( 2635)        |                  |  |                   |  |  |                |  |  | 79 ( 2635)         |
| POINT                           | 500 ( 16667)      | 374 ( 12467)     |  | 119 ( 3967)       |  |  | 83 ( 2767)     |  |  | 655 ( 21834)       |
| TOTAL                           | 751 ( 25045)      | 72 ( 2400)       |  | 162 ( 5400)       |  |  | 30 ( 1000)     |  |  | 764 ( 25467)       |
|                                 |                   | 446 ( 14867)     |  | 281 ( 9367)       |  |  | 113 ( 3767)    |  |  | 1591 ( 53034)      |
| <b>ORGANIC PHOSPHORUS</b>       |                   |                  |  |                   |  |  |                |  |  |                    |
| LAKE MURUM                      | 46 ( 1533)        |                  |  |                   |  |  |                |  |  | 46 ( 1533)         |
| POW. POINT                      | 21 ( 706)         |                  |  |                   |  |  |                |  |  | 21 ( 706)          |
| POINT                           | 251 ( 8367)       | 62 ( 2067)       |  | 15 ( 500)         |  |  | 7 ( 233)       |  |  | 105 ( 3500)        |
| TOTAL                           | 318 ( 10600)      | 36 ( 1200)       |  | 73 ( 2433)        |  |  | 15 ( 500)      |  |  | 375 ( 12500)       |
|                                 |                   | 44 ( 1486)       |  | 88 ( 2933)        |  |  | 22 ( 733)      |  |  | 526 ( 17533)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                  |  |                   |  |  |                |  |  |                    |
| LAKE MURUM                      | 4050 ( 135000)    |                  |  |                   |  |  |                |  |  | 4050 ( 135000)     |
| POW. POINT                      | 955 ( 31833)      |                  |  |                   |  |  |                |  |  | 955 ( 31833)       |
| POINT                           | 906 ( 30267)      | 4399 ( 146633)   |  | 1016 ( 33867)     |  |  | 443 ( 14767)   |  |  | 6813 ( 227100)     |
| TOTAL                           | 5013 ( 167100)    | 185 ( 6167)      |  | 285 ( 9500)       |  |  | 86 ( 2867)     |  |  | 1464 ( 48801)      |
|                                 |                   | 4584 ( 152800)   |  | 1301 ( 43367)     |  |  | 529 ( 17634)   |  |  | 12327 ( 410901)    |
| <b>AMMONIA NITROGEN</b>         |                   |                  |  |                   |  |  |                |  |  |                    |
| LAKE MURUM                      | 181 ( 6033)       |                  |  |                   |  |  |                |  |  | 181 ( 6033)        |
| POW. POINT                      | 42 ( 1406)        |                  |  |                   |  |  |                |  |  | 42 ( 1406)         |
| POINT                           | 1649 ( 54967)     | 8 ( 267)         |  | 146 ( 4867)       |  |  | 35 ( 1167)     |  |  | 231 ( 7701)        |
| TOTAL                           | 1272 ( 42400)     | 216 ( 7200)      |  | 347 ( 11567)      |  |  | 80 ( 2667)     |  |  | 1692 ( 56401)      |
|                                 |                   | 224 ( 7467)      |  | 493 ( 16434)      |  |  | 115 ( 3834)    |  |  | 2104 ( 70135)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |  |                   |  |  |                |  |  |                    |
| LAKE MURUM                      | 2827 ( 94233)     |                  |  |                   |  |  |                |  |  | 2827 ( 94233)      |
| POW. POINT                      | 291 ( 9700)       |                  |  |                   |  |  |                |  |  | 291 ( 9700)        |
| POINT                           | 321 ( 10700)      | 347 ( 11567)     |  | 123 ( 4100)       |  |  | 29 ( 967)      |  |  | 544 ( 18134)       |
| TOTAL                           | 3439 ( 114633)    | 71 ( 2367)       |  | 503 ( 16767)      |  |  | 341 ( 11367)   |  |  | 4701 ( 156701)     |
| <b>CHLORIDE</b>                 |                   |                  |  |                   |  |  |                |  |  |                    |
| LAKE MURUM                      | 92444 ( 3081467)  |                  |  |                   |  |  |                |  |  | 92444 ( 3081467)   |
| POW. POINT                      | 18756 ( 625200)   |                  |  |                   |  |  |                |  |  | 18756 ( 625200)    |
| POINT                           | 169708 ( 5656933) | 29626 ( 987533)  |  | 103713 ( 3457100) |  |  | 6682 ( 222733) |  |  | 158777 ( 5292566)  |
| TOTAL                           | 280908 ( 9365600) | 5104 ( 170133)   |  | 10019 ( 333967)   |  |  | 2101 ( 70033)  |  |  | 166932 ( 6231066)  |
|                                 |                   | 34730 ( 1157666) |  | 113732 ( 3791067) |  |  | 8783 ( 292766) |  |  | 438153 ( 14605099) |
| <b>SILICA</b>                   |                   |                  |  |                   |  |  |                |  |  |                    |
| LAKE MURUM                      | 17507 ( 583567)   |                  |  |                   |  |  |                |  |  | 17507 ( 583567)    |
| POW. POINT                      | 1735 ( 57833)     |                  |  |                   |  |  |                |  |  | 1735 ( 57833)      |
| POINT                           | 648 ( 22433)      | 4662 ( 288733)   |  | 3078 ( 102600)    |  |  | 1876 ( 62533)  |  |  | 15351 ( 511699)    |
| TOTAL                           | 19930 ( 664333)   | 159 ( 5300)      |  | 295 ( 9833)       |  |  | 65 ( 2167)     |  |  | 1207 ( 40233)      |
|                                 |                   | 4821 ( 294033)   |  | 3373 ( 112433)    |  |  | 1941 ( 64700)  |  |  | 34065 ( 1135499)   |

BASIN LOADINGS IN MEIMIC TONS PER MONTH FOR JULY, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 181 ( 5839)       | 115 ( 3710)     | 5 ( 161)         | 14 ( 452)      | 181 ( 5839)        |
| NO. POINT                       | 39 ( 1258)        | 71 ( 2240)      | 134 ( 4123)      | 29 ( 935)      | 173 ( 5581)        |
| POINT                           | 508 ( 16387)      | 186 ( 6000)     | 139 ( 4484)      | 43 ( 1387)     | 742 ( 23935)       |
| TOTAL                           | 728 ( 23484)      |                 |                  |                | 1096 ( 35355)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE HURON                      | 48 ( 1548)        | 6 ( 194)        | 2 ( 65)          | 3 ( 97)        | 48 ( 1548)         |
| NO. POINT                       | 11 ( 355)         | 36 ( 1161)      | 55 ( 1774)       | 15 ( 484)      | 22 ( 711)          |
| POINT                           | 255 ( 8226)       | 42 ( 1355)      | 57 ( 1839)       | 18 ( 581)      | 361 ( 11645)       |
| TOTAL                           | 314 ( 10129)      |                 |                  |                | 431 ( 13908)       |
| <b>NITRATE-NITRICE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE HURON                      | 4259 ( 137387)    | 934 ( 30129)    | 137 ( 4419)      | 65 ( 2097)     | 4259 ( 137387)     |
| NO. POINT                       | 200 ( 6452)       | 184 ( 5935)     | 295 ( 9516)      | 90 ( 2903)     | 1336 ( 43097)      |
| POINT                           | 937 ( 30226)      | 1118 ( 36064)   | 432 ( 13935)     | 155 ( 5000)    | 1506 ( 48580)      |
| TOTAL                           | 5396 ( 174065)    |                 |                  |                | 7101 ( 229064)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 190 ( 6129)       | 0 ( 0)          | 9 ( 290)         | 1 ( 32)        | 190 ( 6129)        |
| NO. POINT                       | 19 ( 613)         | 166 ( 5355)     | 291 ( 9387)      | 75 ( 2419)     | 29 ( 935)          |
| POINT                           | 1075 ( 34677)     | 166 ( 5355)     | 300 ( 9677)      | 76 ( 2451)     | 1607 ( 51838)      |
| TOTAL                           | 1284 ( 41419)     |                 |                  |                | 1826 ( 58902)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 2972 ( 95871)     | 71 ( 2290)      | 37 ( 1194)       | 124 ( 4000)    | 2972 ( 95871)      |
| NO. POINT                       | 107 ( 3452)       | 70 ( 2254)      | 118 ( 3806)      | 31 ( 1000)     | 339 ( 10936)       |
| POINT                           | 331 ( 10677)      | 181 ( 4548)     | 155 ( 5000)      | 155 ( 5000)    | 550 ( 17741)       |
| TOTAL                           | 3410 ( 110008)    |                 |                  |                | 3861 ( 124548)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE HURON                      | 97201 ( 3135516)  | 10711 ( 345516) | 34069 ( 1099000) | 2771 ( 89387)  | 97201 ( 3135516)   |
| NO. POINT                       | 4249 ( 137065)    | 5274 ( 170124)  | 10354 ( 334000)  | 2170 ( 70000)  | 51800 ( 1670968)   |
| POINT                           | 171376 ( 5528323) | 15985 ( 515645) | 44423 ( 1433000) | 4441 ( 159387) | 189176 ( 6102452)  |
| TOTAL                           | 272826 ( 8800904) |                 |                  |                | 338177 ( 10908936) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE HURON                      | 18408 ( 593806)   | 2252 ( 72645)   | 520 ( 16774)     | 529 ( 17065)   | 18408 ( 593806)    |
| NO. POINT                       | 601 ( 19387)      | 165 ( 5323)     | 305 ( 9839)      | 88 ( 2194)     | 3902 ( 125871)     |
| POINT                           | 711 ( 22935)      | 2417 ( 77968)   | 625 ( 26613)     | 597 ( 19259)   | 1249 ( 40291)      |
| TOTAL                           | 19720 ( 636126)   |                 |                  |                | 23559 ( 759868)    |

WATER LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                |                    |
| LAKE MURPHY                     | 179 ( 5774)       |                  |                | 179 ( 5774)        |
| DOWN POINT                      | 61 ( 1964)        | 44 ( 1419)       | 46 ( 1484)     | 240 ( 7742)        |
| POINT                           | 518 ( 16710)      | 148 ( 4774)      | 29 ( 935)      | 767 ( 24742)       |
| TOTAL                           | 758 ( 24052)      | 192 ( 6193)      | 75 ( 2419)     | 1186 ( 38258)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                  |                |                    |
| LAKE MURPHY                     | 47 ( 1516)        |                  |                | 47 ( 1516)         |
| DOWN POINT                      | 17 ( 544)         | 11 ( 355)        | 9 ( 290)       | 47 ( 1516)         |
| POINT                           | 257 ( 8200)       | 60 ( 1935)       | 15 ( 484)      | 369 ( 11903)       |
| TOTAL                           | 321 ( 10350)      | 71 ( 2290)       | 24 ( 774)      | 463 ( 14935)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                  |                |                    |
| LAKE MURPHY                     | 4222 ( 136194)    |                  |                | 4222 ( 136194)     |
| DOWN POINT                      | 563 ( 18161)      | 618 ( 19335)     | 286 ( 9226)    | 2852 ( 91999)      |
| POINT                           | 937 ( 30226)      | 295 ( 9516)      | 90 ( 2903)     | 1512 ( 48774)      |
| TOTAL                           | 5722 ( 184581)    | 913 ( 29451)     | 376 ( 12129)   | 6586 ( 276967)     |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                |                    |
| LAKE MURPHY                     | 184 ( 6065)       |                  |                | 184 ( 6065)        |
| DOWN POINT                      | 33 ( 1065)        | 59 ( 1903)       | 2 ( 65)        | 98 ( 3162)         |
| POINT                           | 1081 ( 34871)     | 301 ( 9710)      | 87 ( 2806)     | 1637 ( 52806)      |
| TOTAL                           | 1302 ( 42011)     | 360 ( 11613)     | 89 ( 2871)     | 1923 ( 62033)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                |                    |
| LAKE MURPHY                     | 2947 ( 95065)     |                  |                | 2947 ( 95065)      |
| DOWN POINT                      | 234 ( 7548)       | 164 ( 5290)      | 181 ( 5834)    | 683 ( 22032)       |
| POINT                           | 331 ( 10677)      | 127 ( 4097)      | 31 ( 1000)     | 565 ( 18226)       |
| TOTAL                           | 3512 ( 113290)    | 291 ( 9387)      | 212 ( 6839)    | 4195 ( 135323)     |
| <b>CHLORIDE</b>                 |                   |                  |                |                    |
| LAKE MURPHY                     | 96363 ( 3108484)  |                  |                | 96363 ( 3108484)   |
| DOWN POINT                      | 14417 ( 465065)   | 44647 ( 1440226) | 5493 ( 177194) | 78929 ( 2546098)   |
| POINT                           | 175364 ( 5656903) | 10354 ( 334000)  | 2170 ( 70000)  | 193162 ( 6231032)  |
| TOTAL                           | 286144 ( 9230452) | 55001 ( 1774226) | 7663 ( 247194) | 368454 ( 11885614) |
| <b>SILICA</b>                   |                   |                  |                |                    |
| LAKE MURPHY                     | 18249 ( 58677)    |                  |                | 18249 ( 58677)     |
| DOWN POINT                      | 1357 ( 43774)     | 1423 ( 45903)    | 923 ( 29774)   | 6547 ( 211193)     |
| POINT                           | 711 ( 22435)      | 305 ( 9839)      | 68 ( 2194)     | 1249 ( 40291)      |
| TOTAL                           | 20317 ( 655386)   | 1728 ( 55742)    | 991 ( 31468)   | 26045 ( 840161)    |

BASIN LOADINGS IN METRIC TONS PER A-DAY FOR SEPTEMBER, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 171 ( 5700)        | 138 ( 4600)      | 132 ( 4400)       | 33 ( 1100)     | 171 ( 5700)        |
| MO. POINT                       | 133 ( 4433)        | 75 ( 2500)       | 162 ( 5400)       | 28 ( 933)      | 436 ( 14533)       |
| POINT                           | 506 ( 16867)       | 213 ( 7100)      | 294 ( 9800)       | 61 ( 2033)     | 771 ( 25700)       |
| TOTAL                           | 810 ( 27060)       |                  |                   |                | 1378 ( 45933)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 45 ( 1500)         | 28 ( 933)        | 25 ( 833)         | 7 ( 233)       | 45 ( 1500)         |
| MO. POINT                       | 55 ( 1167)         | 37 ( 1233)       | 72 ( 2400)        | 14 ( 467)      | 95 ( 3166)         |
| POINT                           | 253 ( 8433)        | 65 ( 2166)       | 97 ( 3233)        | 21 ( 700)      | 376 ( 12533)       |
| TOTAL                           | 353 ( 11100)       |                  |                   |                | 516 ( 17199)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 4033 ( 134433)     | 2035 ( 67833)    | 1399 ( 46633)     | 263 ( 8767)    | 4033 ( 134433)     |
| MO. POINT                       | 1673 ( 55767)      | 198 ( 6600)      | 285 ( 9500)       | 86 ( 2867)     | 5370 ( 179000)     |
| POINT                           | 907 ( 30233)       | 2233 ( 74433)    | 1684 ( 56133)     | 349 ( 11634)   | 1476 ( 49200)      |
| TOTAL                           | 6613 ( 220433)     |                  |                   |                | 10879 ( 362633)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 180 ( 6000)        | 41 ( 1367)       | 154 ( 5133)       | 5 ( 167)       | 180 ( 6000)        |
| MO. POINT                       | 79 ( 2633)         | 191 ( 6367)      | 345 ( 11500)      | 76 ( 2600)     | 279 ( 9300)        |
| POINT                           | 1052 ( 35067)      | 232 ( 7734)      | 499 ( 16633)      | 83 ( 2767)     | 1666 ( 55534)      |
| TOTAL                           | 1311 ( 43700)      |                  |                   |                | 2125 ( 70634)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 2814 ( 93800)      | 195 ( 6500)      | 420 ( 14000)      | 177 ( 5900)    | 2814 ( 93800)      |
| MO. POINT                       | 481 ( 16033)       | 74 ( 2467)       | 123 ( 4100)       | 29 ( 967)      | 1273 ( 42433)      |
| POINT                           | 321 ( 10700)       | 269 ( 8967)      | 543 ( 18100)      | 206 ( 6867)    | 547 ( 18234)       |
| TOTAL                           | 3616 ( 120533)     |                  |                   |                | 4634 ( 154467)     |
| <b>CHLORIDE</b>                 |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 92038 ( 3067933)   | 28419 ( 947300)  | 99397 ( 3313233)  | 4466 ( 148867) | 92038 ( 3067933)   |
| MO. POINT                       | 39258 ( 1309433)   | 5104 ( 170133)   | 10019 ( 333967)   | 210 ( 70033)   | 171580 ( 5719333)  |
| POINT                           | 189708 ( 5656933)  | 33523 ( 1117433) | 109416 ( 3647200) | 6567 ( 218900) | 186932 ( 6231066)  |
| TOTAL                           | 511044 ( 16034799) |                  |                   |                | 450550 ( 15018332) |
| <b>SILICA</b>                   |                    |                  |                   |                |                    |
| LAKE MURDOCK                    | 17430 ( 581000)    | 4552 ( 151733)   | 3382 ( 112733)    | 809 ( 26967)   | 17430 ( 581000)    |
| MO. POINT                       | 2729 ( 90967)      | 159 ( 5300)      | 295 ( 9833)       | 65 ( 2167)     | 11472 ( 382400)    |
| POINT                           | 668 ( 22933)       | 4711 ( 157033)   | 3677 ( 122566)    | 874 ( 29134)   | 1207 ( 40233)      |
| TOTAL                           | 20687 ( 694900)    |                  |                   |                | 30109 ( 1003633)   |

BASIN LOADINGS IN METRIC TONS A MONTH FOR OCTOBER, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | NEPT/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|-----------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 171 ( 5516)        | 100 ( 3226)     | 22 ( 710)         | 23 ( 742)      | 171 ( 5516)        |
| SEA POINT                       | 52 ( 1677)         | 74 ( 2347)      | 149 ( 4806)       | 30 ( 968)      | 197 ( 6355)        |
| POINT                           | 509 ( 16419)       | 174 ( 5613)     | 171 ( 5516)       | 53 ( 1710)     | 762 ( 24540)       |
| TOTAL                           | 732 ( 23612)       |                 |                   |                | 1130 ( 36451)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 40 ( 1484)         | 6 ( 194)        | 7 ( 226)          | 4 ( 129)       | 46 ( 1884)         |
| SEA POINT                       | 17 ( 588)          | 34 ( 1097)      | 61 ( 1968)        | 15 ( 484)      | 34 ( 1097)         |
| POINT                           | 256 ( 8258)        | 41 ( 1291)      | 68 ( 2194)        | 19 ( 613)      | 366 ( 11807)       |
| TOTAL                           | 319 ( 10291)       |                 |                   |                | 446 ( 14388)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                 |                   |                |                    |
| LAKE MURDO                      | 4038 ( 130258)     | 690 ( 22258)    | 488 ( 15742)      | 125 ( 4032)    | 4038 ( 130258)     |
| SEA POINT                       | 343 ( 12677)       | 192 ( 6194)     | 295 ( 9516)       | 90 ( 2903)     | 1696 ( 54709)      |
| POINT                           | 937 ( 30226)       | 882 ( 28452)    | 783 ( 25258)      | 215 ( 6935)    | 1514 ( 48839)      |
| TOTAL                           | 5308 ( 173161)     |                 |                   |                | 7248 ( 233806)     |
| <b>AMMONIA NITROGEN</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 180 ( 5806)        | 1 ( 32)         | 42 ( 1355)        | 3 ( 97)        | 180 ( 5806)        |
| SEA POINT                       | 29 ( 935)          | 167 ( 5387)     | 314 ( 10129)      | 75 ( 2419)     | 75 ( 2419)         |
| POINT                           | 1076 ( 34711)      | 168 ( 5419)     | 356 ( 11484)      | 78 ( 2516)     | 1632 ( 52645)      |
| TOTAL                           | 1285 ( 41451)      |                 |                   |                | 1887 ( 60870)      |
| <b>ORGANIC NITROGEN</b>         |                    |                 |                   |                |                    |
| LAKE MURDO                      | 2819 ( 90935)      | 64 ( 2085)      | 120 ( 3871)       | 213 ( 6871)    | 2819 ( 90935)      |
| SEA POINT                       | 136 ( 4457)        | 73 ( 2355)      | 127 ( 4097)       | 31 ( 1000)     | 535 ( 17259)       |
| POINT                           | 331 ( 10677)       | 137 ( 4420)     | 247 ( 7968)       | 244 ( 7871)    | 562 ( 18129)       |
| TOTAL                           | 3288 ( 106644)     |                 |                   |                | 3916 ( 126323)     |
| <b>CHLORIDE</b>                 |                    |                 |                   |                |                    |
| LAKE MURDO                      | 92174 ( 2973355)   | 12024 ( 398000) | 91334 ( 2946258)  | 3800 ( 122581) | 92174 ( 2973355)   |
| SEA POINT                       | 6421 ( 207124)     | 5274 ( 170129)  | 10354 ( 334000)   | 2170 ( 70000)  | 113583 ( 3683468)  |
| POINT                           | 171229 ( 5523510)  | 17302 ( 558129) | 101688 ( 3280258) | 5970 ( 192581) | 189627 ( 607645)   |
| TOTAL                           | 269824 ( 8704000)  |                 |                   |                | 394784 ( 12734968) |
| <b>SILICA</b>                   |                    |                 |                   |                |                    |
| LAKE MURDO                      | 17456 ( 563097)    | 1823 ( 58806)   | 1374 ( 44323)     | 706 ( 22774)   | 17456 ( 563097)    |
| SEA POINT                       | 840 ( 27697)       | 165 ( 5323)     | 305 ( 9839)       | 68 ( 2194)     | 10743 ( 353000)    |
| POINT                           | 711 ( 22935)       | 1988 ( 64124)   | 1679 ( 54162)     | 774 ( 24966)   | 1249 ( 40291)      |
| TOTAL                           | 19007 ( 613129)    |                 |                   |                | 23448 ( 756388)    |

BASED LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 163 ( 5433)       |                 |                  |                | 163 ( 5433)        |
| LAKE MICHIGAN                   | 57 ( 1900)        | 18 ( 600)       | 21 ( 700)        | 36 ( 1200)     | 132 ( 4400)        |
| LAKE ERIE                       | 496 ( 16533)      | 71 ( 2367)      | 139 ( 4633)      | 29 ( 967)      | 735 ( 24500)       |
| TOTAL                           | 716 ( 23866)      | 89 ( 2967)      | 160 ( 5333)      | 65 ( 2167)     | 1030 ( 34333)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE HURON                      | 44 ( 1467)        |                 |                  |                | 44 ( 1467)         |
| LAKE MICHIGAN                   | 17 ( 567)         | 5 ( 167)        | 9 ( 300)         | 7 ( 233)       | 38 ( 1267)         |
| LAKE ERIE                       | 250 ( 8333)       | 34 ( 1133)      | 56 ( 1867)       | 14 ( 467)      | 354 ( 11800)       |
| TOTAL                           | 311 ( 10367)      | 39 ( 1300)      | 65 ( 2167)       | 21 ( 700)      | 436 ( 14534)       |
| <b>NITRATE-NITRILE NITRANGE</b> |                   |                 |                  |                |                    |
| LAKE HURON                      | 3455 ( 128500)    |                 |                  |                | 3455 ( 128500)     |
| LAKE MICHIGAN                   | 564 ( 18400)      | 651 ( 21700)    | 360 ( 12000)     | 327 ( 10900)   | 1902 ( 63400)      |
| LAKE ERIE                       | 907 ( 30233)      | 190 ( 6333)     | 285 ( 9500)      | 86 ( 2867)     | 1468 ( 48933)      |
| TOTAL                           | 5326 ( 177533)    | 841 ( 28033)    | 645 ( 21500)     | 413 ( 13767)   | 7225 ( 240833)     |
| <b>AMMONIA NITRATES</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 172 ( 5733)       |                 |                  |                | 172 ( 5733)        |
| LAKE MICHIGAN                   | 29 ( 967)         | 4 ( 133)        | 44 ( 1467)       | 4 ( 133)       | 81 ( 2700)         |
| LAKE ERIE                       | 1044 ( 34400)     | 168 ( 5600)     | 297 ( 9900)      | 84 ( 2800)     | 1593 ( 53100)      |
| TOTAL                           | 1245 ( 41500)     | 172 ( 5733)     | 341 ( 11367)     | 88 ( 2933)     | 1846 ( 61533)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE HURON                      | 2690 ( 89667)     |                 |                  |                | 2690 ( 89667)      |
| LAKE MICHIGAN                   | 184 ( 6300)       | 56 ( 1867)      | 112 ( 3733)      | 182 ( 6067)    | 539 ( 17967)       |
| LAKE ERIE                       | 321 ( 10700)      | 72 ( 2400)      | 118 ( 3933)      | 29 ( 967)      | 540 ( 18000)       |
| TOTAL                           | 3200 ( 106667)    | 128 ( 4267)     | 230 ( 7666)      | 211 ( 7034)    | 3769 ( 125634)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE HURON                      | 87904 ( 2932800)  |                 |                  |                | 87904 ( 2932800)   |
| LAKE MICHIGAN                   | 11301 ( 376700)   | 13713 ( 457100) | 8684 ( 2882800)  | 5112 ( 170400) | 116610 ( 3887000)  |
| LAKE ERIE                       | 169708 ( 5654433) | 5104 ( 170133)  | 10014 ( 333967)  | 2101 ( 70033)  | 186932 ( 6231066)  |
| TOTAL                           | 268913 ( 8966433) | 18817 ( 627233) | 96503 ( 3216767) | 7213 ( 240433) | 391526 ( 13050866) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE HURON                      | 16662 ( 555400)   |                 |                  |                | 16662 ( 555400)    |
| LAKE MICHIGAN                   | 1166 ( 38033)     | 1694 ( 56467)   | 1125 ( 37500)    | 913 ( 30433)   | 4900 ( 163333)     |
| LAKE ERIE                       | 688 ( 22933)      | 159 ( 5300)     | 295 ( 9833)      | 65 ( 2167)     | 1207 ( 40233)      |
| TOTAL                           | 18514 ( 617266)   | 1853 ( 61767)   | 1420 ( 47333)    | 976 ( 32600)   | 22769 ( 758966)    |

WAST. LOADINGS IN METRIC TONS PER MONTH FOR DECEMBER, 1975  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLER BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL             |
|---------------------------------|--------------------|------------------|-------------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                   |
| LAKE MURDO                      | 167 ( 5387)        | 651 ( 21000)     | 192 ( 6194)       | 113 ( 3645)     | 167 ( 5387)       |
| PO. POINT                       | 165 ( 5323)        | 77 ( 2484)       | 170 ( 5484)       | 32 ( 1032)      | 1121 ( 36162)     |
| TOTAL                           | 524 ( 16033)       | 728 ( 23484)     | 362 ( 11678)      | 145 ( 4677)     | 803 ( 25903)      |
| <b>UNITED PHOSPHORUS</b>        |                    |                  |                   |                 |                   |
| LAKE MURDO                      | 44 ( 1419)         | 47 ( 2606)       | 32 ( 1032)        | 20 ( 645)       | 44 ( 1419)        |
| PO. POINT                       | 261 ( 8419)        | 38 ( 1226)       | 72 ( 2323)        | 15 ( 484)       | 186 ( 5999)       |
| TOTAL                           | 352 ( 11354)       | 125 ( 4032)      | 104 ( 3355)       | 35 ( 1124)      | 386 ( 12452)      |
| <b>NITRATE-NITRILE NITROGEN</b> |                    |                  |                   |                 |                   |
| LAKE MURDO                      | 3928 ( 126710)     | 5432 ( 175226)   | 1824 ( 58439)     | 928 ( 29335)    | 3928 ( 126710)    |
| PO. POINT                       | 2061 ( 66484)      | 205 ( 6613)      | 295 ( 9516)       | 90 ( 2903)      | 10245 ( 330884)   |
| TOTAL                           | 6928 ( 223484)     | 5637 ( 181839)   | 2119 ( 68355)     | 1018 ( 32838)   | 1529 ( 49422)     |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                   |
| LAKE MURDO                      | 175 ( 5645)        | 61 ( 1968)       | 238 ( 7677)       | 43 ( 1387)      | 175 ( 5645)       |
| PO. POINT                       | 108 ( 3484)        | 232 ( 7484)      | 360 ( 11613)      | 107 ( 3452)     | 450 ( 14516)      |
| TOTAL                           | 1372 ( 40258)      | 293 ( 9452)      | 598 ( 19290)      | 150 ( 4839)     | 1786 ( 57678)     |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                   |
| LAKE MURDO                      | 2742 ( 88452)      | 453 ( 14613)     | 577 ( 18613)      | 442 ( 14258)    | 2742 ( 88452)     |
| PO. POINT                       | 600 ( 19355)       | 77 ( 2484)       | 127 ( 4097)       | 31 ( 1000)      | 2072 ( 66839)     |
| TOTAL                           | 3342 ( 107807)     | 530 ( 17097)     | 704 ( 22710)      | 473 ( 15258)    | 566 ( 18258)      |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                   |
| LAKE MURDO                      | 89659 ( 2892226)   | 42645 ( 1375645) | 155734 ( 5023677) | 10498 ( 338645) | 89659 ( 2892226)  |
| PO. POINT                       | 49234 ( 1588194)   | 5274 ( 170129)   | 10354 ( 334000)   | 2170 ( 70000)   | 258111 ( 8326161) |
| TOTAL                           | 138893 ( 4480420)  | 47919 ( 1545774) | 166088 ( 5357677) | 12668 ( 408645) | 193162 ( 6231032) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                   |
| LAKE MURDO                      | 16980 ( 547742)    | 11215 ( 361774)  | 4560 ( 147097)    | 2464 ( 79484)   | 16980 ( 547742)   |
| PO. POINT                       | 3615 ( 116613)     | 165 ( 5323)      | 305 ( 9839)       | 68 ( 2194)      | 21854 ( 704968)   |
| TOTAL                           | 21304 ( 667290)    | 11380 ( 367097)  | 4865 ( 156936)    | 2532 ( 81678)   | 1249 ( 40291)     |
|                                 |                    |                  |                   |                 | 40083 ( 1293001)  |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JANUARY, 1976  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|------------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                   |                |                    |
| LAKE MURON                      | 114 ( 3677)       | 153 ( 4935)      | 456 ( 14710)      | 106 ( 3419)    | 114 ( 3677)        |
| MUN. POINT                      | 78 ( 2516)        | 62 ( 2000)       | 132 ( 4258)       | 32 ( 1032)     | 793 ( 25580)       |
| POINT                           | 492 ( 15871)      | 215 ( 6955)      | 588 ( 18968)      | 138 ( 4451)    | 718 ( 23161)       |
| TOTAL                           | 684 ( 22064)      |                  |                   |                | 1625 ( 52418)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                  |                   |                |                    |
| LAKE MURON                      | 54 ( 1742)        | 55 ( 1774)       | 136 ( 4387)       | 9 ( 290)       | 54 ( 1742)         |
| MUN. POINT                      | 21 ( 677)         | 32 ( 1032)       | 65 ( 2097)        | 16 ( 516)      | 221 ( 7128)        |
| POINT                           | 187 ( 6032)       | 87 ( 2806)       | 201 ( 6484)       | 25 ( 806)      | 300 ( 9677)        |
| TOTAL                           | 262 ( 8451)       |                  |                   |                | 575 ( 18547)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                  |                   |                |                    |
| LAKE MURON                      | 3569 ( 115129)    | 2594 ( 83677)    | 2893 ( 93323)     | 498 ( 16065)   | 3569 ( 115129)     |
| MUN. POINT                      | 1088 ( 35097)     | 191 ( 6161)      | 242 ( 7806)       | 120 ( 3871)    | 7073 ( 228162)     |
| POINT                           | 228 ( 7355)       | 2785 ( 89838)    | 3135 ( 101129)    | 618 ( 19936)   | 781 ( 25193)       |
| TOTAL                           | 4885 ( 157581)    |                  |                   |                | 11423 ( 368484)    |
| <b>AMMONIA-NITROGEN</b>         |                   |                  |                   |                |                    |
| LAKE MURON                      | 152 ( 4903)       | 59 ( 1903)       | 563 ( 18161)      | 41 ( 1323)     | 152 ( 4903)        |
| MUN. POINT                      | 51 ( 1645)        | 265 ( 8548)      | 501 ( 16161)      | 102 ( 3290)    | 714 ( 23032)       |
| POINT                           | 1417 ( 45710)     | 324 ( 10451)     | 1064 ( 34322)     | 143 ( 4613)    | 2285 ( 73709)      |
| TOTAL                           | 1620 ( 52258)     |                  |                   |                | 3151 ( 101644)     |
| <b>ORGANIC-NITROGEN</b>         |                   |                  |                   |                |                    |
| LAKE MURON                      | 3568 ( 115097)    | 400 ( 12905)     | 1140 ( 36774)     | 333 ( 10742)   | 3568 ( 115097)     |
| MUN. POINT                      | 284 ( 9323)       | 77 ( 2464)       | 140 ( 4516)       | 42 ( 1355)     | 2162 ( 69742)      |
| POINT                           | 516 ( 16645)      | 477 ( 15387)     | 1280 ( 41290)     | 375 ( 12097)   | 775 ( 25000)       |
| TOTAL                           | 4373 ( 141065)    |                  |                   |                | 6505 ( 209839)     |
| <b>CHLORIDE</b>                 |                   |                  |                   |                |                    |
| LAKE MURON                      | 95356 ( 3076000)  | 29143 ( 940697)  | 113040 ( 3646452) | 6476 ( 208903) | 95356 ( 3076000)   |
| MUN. POINT                      | 17943 ( 580097)   | 5328 ( 171871)   | 9613 ( 31097)     | 2908 ( 93806)  | 16642 ( 5375549)   |
| POINT                           | 170130 ( 5444065) | 34471 ( 1111968) | 122653 ( 3956549) | 9384 ( 302709) | 187979 ( 6063839)  |
| TOTAL                           | 283469 ( 914102)  |                  |                   |                | 449977 ( 14515388) |
| <b>SILICA</b>                   |                   |                  |                   |                |                    |
| LAKE MURON                      | 8650 ( 279032)    | 5220 ( 168387)   | 7655 ( 246935)    | 1956 ( 63097)  | 8650 ( 279032)     |
| MUN. POINT                      | 1940 ( 62581)     | 165 ( 5323)      | 300 ( 9677)       | 91 ( 2935)     | 16771 ( 541000)    |
| POINT                           | 700 ( 22581)      | 5365 ( 173710)   | 7955 ( 256612)    | 2047 ( 66032)  | 1256 ( 40516)      |
| TOTAL                           | 11290 ( 364194)   |                  |                   |                | 26677 ( 860548)    |

# HASIN LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1976 (AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLW BASIN  | WESTERN BASIN      | CENTRAL BASIN      | EASTERN BASIN    | TOTAL               |
|---------------------------------|--------------------|--------------------|--------------------|------------------|---------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                    |                    |                  |                     |
| LAKE MURDOCK                    | 91 ( 3130 )        | 2291 ( 79000 )     | 947 ( 32655 )      | 336 ( 13655 )    | 91 ( 279032 )       |
| POINTE                          | 403 ( 30446 )      | 62 ( 2138 )        | 124 ( 4276 )       | 29 ( 1000 )      | 4517 ( 155756 )     |
| TOTAL                           | 494 ( 16084 )      | 2353 ( 81138 )     | 1071 ( 36931 )     | 425 ( 14655 )    | 680 ( 23448 )       |
| <b>ORTHOPHOSPHORUS</b>          |                    |                    |                    |                  |                     |
| LAKE MURDOCK                    | 43 ( 1483 )        | 364 ( 12552 )      | 277 ( 9552 )       | 52 ( 1793 )      | 43 ( 279032 )       |
| POINTE                          | 167 ( 5759 )       | 30 ( 1034 )        | 61 ( 2103 )        | 14 ( 483 )       | 860 ( 29656 )       |
| TOTAL                           | 210 ( 7242 )       | 394 ( 13586 )      | 338 ( 11655 )      | 66 ( 2276 )      | 282 ( 9723 )        |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                    |                    |                  |                     |
| LAKE MURDOCK                    | 2866 ( 9828 )      | 12350 ( 425862 )   | 5353 ( 184586 )    | 1669 ( 57552 )   | 2866 ( 279032 )     |
| POINTE                          | 7147 ( 246446 )    | 174 ( 6172 )       | 226 ( 7793 )       | 112 ( 3862 )     | 26519 ( 914448 )    |
| TOTAL                           | 9913 ( 334626 )    | 12524 ( 432030 )   | 5579 ( 192379 )    | 1781 ( 61414 )   | 731 ( 25206 )       |
| <b>AMMONIA NITROGEN</b>         |                    |                    |                    |                  |                     |
| LAKE MURDOCK                    | 122 ( 4207 )       | 780 ( 26897 )      | 954 ( 32897 )      | 124 ( 4276 )     | 122 ( 279032 )      |
| POINTE                          | 442 ( 15241 )      | 266 ( 9241 )       | 484 ( 16690 )      | 131 ( 4517 )     | 2300 ( 79311 )      |
| TOTAL                           | 564 ( 19448 )      | 1046 ( 36138 )     | 1438 ( 49586 )     | 255 ( 8793 )     | 2226 ( 76758 )      |
| <b>ORGANIC NITROGEN</b>         |                    |                    |                    |                  |                     |
| LAKE MURDOCK                    | 2865 ( 98793 )     | 3105 ( 107069 )    | 2083 ( 71828 )     | 1169 ( 40310 )   | 2865 ( 279032 )     |
| POINTE                          | 2081 ( 71754 )     | 75 ( 2586 )        | 131 ( 4517 )       | 40 ( 1374 )      | 8436 ( 290966 )     |
| TOTAL                           | 4946 ( 167047 )    | 3180 ( 109655 )    | 2214 ( 76345 )     | 1209 ( 41690 )   | 729 ( 25137 )       |
| <b>CHLORIDE</b>                 |                    |                    |                    |                  |                     |
| LAKE MURDOCK                    | 76545 ( 2640862 )  | 104524 ( 3742207 ) | 136266 ( 4698828 ) | 19996 ( 689517 ) | 76545 ( 279032 )    |
| POINTE                          | 117075 ( 4037044 ) | 4985 ( 171897 )    | 8993 ( 310103 )    | 2721 ( 93828 )   | 341461 ( 13167621 ) |
| TOTAL                           | 193620 ( 6677906 ) | 113509 ( 3914103 ) | 145259 ( 5008931 ) | 22717 ( 783345 ) | 175452 ( 6063862 )  |
| <b>SILICA</b>                   |                    |                    |                    |                  |                     |
| LAKE MURDOCK                    | 6947 ( 239552 )    | 20758 ( 715793 )   | 13040 ( 449655 )   | 5135 ( 177069 )  | 6947 ( 279032 )     |
| POINTE                          | 9328 ( 321455 )    | 155 ( 5345 )       | 281 ( 9690 )       | 85 ( 2931 )      | 48261 ( 1664172 )   |
| TOTAL                           | 16275 ( 560997 )   | 20913 ( 721138 )   | 13321 ( 459345 )   | 5220 ( 180000 )  | 1175 ( 40518 )      |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH, 1976  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLK. BASIN | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN    | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|------------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                  |                    |
| LAKE MURDO                      | 111 ( 3581)        |                  |                   |                  | 111 ( 3581)        |
| POINTE                          | 1015 ( 32742)      | 834 ( 26903)     | 419 ( 13516)      | 837 ( 27000)     | 3105 ( 100161)     |
| TOTAL                           | 1126 ( 33053)      | 834 ( 26903)     | 419 ( 13516)      | 837 ( 27000)     | 3105 ( 100161)     |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                   |                  |                    |
| LAKE MURDO                      | 52 ( 1677)         |                  |                   |                  | 52 ( 1677)         |
| POINTE                          | 174 ( 5742)        | 163 ( 5258)      | 73 ( 2355)        | 77 ( 2484)       | 491 ( 15839)       |
| TOTAL                           | 226 ( 7419)        | 163 ( 5258)      | 73 ( 2355)        | 77 ( 2484)       | 491 ( 15839)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                  |                    |
| LAKE MURDO                      | 3482 ( 112323)     |                  |                   |                  | 3482 ( 112323)     |
| POINTE                          | 7465 ( 256935)     | 7302 ( 235544)   | 3132 ( 101032)    | 2903 ( 93645)    | 21302 ( 687160)    |
| TOTAL                           | 10947 ( 376045)    | 7302 ( 235544)   | 3132 ( 101032)    | 2903 ( 93645)    | 25566 ( 824708)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                  |                    |
| LAKE MURDO                      | 148 ( 4774)        |                  |                   |                  | 148 ( 4774)        |
| POINTE                          | 495 ( 15968)       | 289 ( 9323)      | 355 ( 11452)      | 202 ( 6516)      | 1341 ( 43259)      |
| TOTAL                           | 643 ( 20742)       | 289 ( 9323)      | 355 ( 11452)      | 202 ( 6516)      | 2373 ( 76549)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                  |                    |
| LAKE MURDO                      | 3481 ( 112290)     |                  |                   |                  | 3481 ( 112290)     |
| POINTE                          | 2230 ( 71935)      | 1403 ( 45258)    | 1014 ( 32710)     | 1596 ( 45032)    | 6043 ( 194935)     |
| TOTAL                           | 5711 ( 184225)     | 1403 ( 45258)    | 1014 ( 32710)     | 1596 ( 45032)    | 10302 ( 332322)    |
| <b>CHLORIDE</b>                 |                    |                  |                   |                  |                    |
| LAKE MURDO                      | 93030 ( 3000968)   |                  |                   |                  | 93030 ( 3000968)   |
| POINTE                          | 126736 ( 4088258)  | 88897 ( 2867645) | 126982 ( 4096194) | 31739 ( 1023834) | 374354 ( 12075436) |
| TOTAL                           | 219766 ( 7089226)  | 88897 ( 2867645) | 126982 ( 4096194) | 31739 ( 1023834) | 655363 ( 21140743) |
| <b>SILICA</b>                   |                    |                  |                   |                  |                    |
| LAKE MURDO                      | 8439 ( 272226)     |                  |                   |                  | 8439 ( 272226)     |
| POINTE                          | 10594 ( 341742)    | 12395 ( 399839)  | 6996 ( 225677)    | 4085 ( 260806)   | 38070 ( 1228064)   |
| TOTAL                           | 19033 ( 613968)    | 12395 ( 399839)  | 6996 ( 225677)    | 4085 ( 260806)   | 47765 ( 1540806)   |

# WASTEWATER LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1976 (AVE DAILY LOADS IN KG/DAY)

|                                  | DET/ST. CLR MARIN  | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|----------------------------------|--------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>          |                    |                  |                  |                 |                    |
| LAKE MURDOCK                     | 116 ( 3867)        | 59 ( 1967)       | 79 ( 2633)       | 191 ( 6367)     | 116 ( 3867)        |
| WOLF POINT                       | 233 ( 7767)        | 63 ( 2103)       | 123 ( 4100)      | 30 ( 1000)      | 562 ( 18734)       |
| POWELL                           | 481 ( 16033)       | 122 ( 4067)      | 202 ( 6733)      | 221 ( 7367)     | 697 ( 23233)       |
| TOTAL                            | 830 ( 27667)       |                  |                  |                 | 1375 ( 45834)      |
| <b>ORTHOPHOSPHORUS</b>           |                    |                  |                  |                 |                    |
| LAKE MURDOCK                     | 55 ( 1833)         | 26 ( 867)        | 16 ( 533)        | 27 ( 900)       | 55 ( 1833)         |
| WOLF POINT                       | 53 ( 1767)         | 31 ( 1033)       | 57 ( 1900)       | 16 ( 533)       | 122 ( 4067)        |
| POWELL                           | 183 ( 6100)        | 57 ( 1900)       | 73 ( 2433)       | 43 ( 1433)      | 287 ( 9566)        |
| TOTAL                            | 291 ( 9700)        |                  |                  |                 | 464 ( 15466)       |
| <b>NITRATE-NITRITIC NITROGEN</b> |                    |                  |                  |                 |                    |
| LAKE MURDOCK                     | 3639 ( 121300)     | 1484 ( 49467)    | 764 ( 25467)     | 1245 ( 41500)   | 3639 ( 121300)     |
| WOLF POINT                       | 2669 ( 88967)      | 185 ( 6167)      | 234 ( 7800)      | 116 ( 3867)     | 6162 ( 205401)     |
| POWELL                           | 222 ( 7400)        | 1069 ( 35634)    | 996 ( 33267)     | 1361 ( 45367)   | 757 ( 25234)       |
| TOTAL                            | 6530 ( 217667)     |                  |                  |                 | 10558 ( 351935)    |
| <b>AMMONIA NITROGEN</b>          |                    |                  |                  |                 |                    |
| LAKE MURDOCK                     | 155 ( 5167)        | 47 ( 1567)       | 127 ( 4233)      | 46 ( 1533)      | 155 ( 5167)        |
| WOLF POINT                       | 136 ( 4533)        | 254 ( 8467)      | 462 ( 15400)     | 135 ( 4500)     | 356 ( 11866)       |
| POWELL                           | 1386 ( 46000)      | 301 ( 10034)     | 589 ( 19633)     | 181 ( 6033)     | 2231 ( 74167)      |
| TOTAL                            | 1671 ( 55700)      |                  |                  |                 | 2742 ( 91400)      |
| <b>ORGANIC NITROGEN</b>          |                    |                  |                  |                 |                    |
| LAKE MURDOCK                     | 3634 ( 121267)     | 165 ( 5500)      | 307 ( 10233)     | 462 ( 15400)    | 3634 ( 121267)     |
| WOLF POINT                       | 733 ( 24433)       | 78 ( 2600)       | 135 ( 4500)      | 41 ( 1367)      | 1667 ( 55566)      |
| POWELL                           | 500 ( 16667)       | 243 ( 8100)      | 442 ( 14733)     | 503 ( 16767)    | 754 ( 25134)       |
| TOTAL                            | 4871 ( 162367)     |                  |                  |                 | 6059 ( 201967)     |
| <b>CHLORIDE</b>                  |                    |                  |                  |                 |                    |
| LAKE MURDOCK                     | 97232 ( 3241067)   | 27338 ( 911267)  | 89435 ( 2981167) | 15576 ( 519200) | 97232 ( 3241067)   |
| WOLF POINT                       | 50310 ( 1677000)   | 5156 ( 171867)   | 9303 ( 310100)   | 2815 ( 93833)   | 182659 ( 6088634)  |
| POWELL                           | 184642 ( 5488967)  | 32694 ( 1083134) | 96738 ( 3291267) | 18391 ( 613033) | 181916 ( 6063867)  |
| TOTAL                            | 312184 ( 10306134) |                  |                  |                 | 461807 ( 15393568) |
| <b>SILICA</b>                    |                    |                  |                  |                 |                    |
| LAKE MURDOCK                     | 8820 ( 294000)     | 3604 ( 120133)   | 2218 ( 73933)    | 3132 ( 104400)  | 8820 ( 294000)     |
| WOLF POINT                       | 3979 ( 132633)     | 166 ( 5533)      | 291 ( 9700)      | 88 ( 2933)      | 12933 ( 431099)    |
| POWELL                           | 677 ( 22567)       | 3764 ( 125466)   | 2509 ( 83633)    | 3220 ( 107333)  | 1416 ( 40533)      |
| TOTAL                            | 13476 ( 449200)    |                  |                  |                 | 22969 ( 765632)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MAY, 1976  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. C/LR BASIN | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                  |                 |                    |
| LAKE MURON                      | 126 ( 4065)        | 52 ( 1677)       | 44 ( 1419)       | 136 ( 4387)     | 126 ( 4065)        |
| AG. POINT                       | 246 ( 7935)        | 66 ( 2129)       | 113 ( 3645)      | 32 ( 1032)      | 478 ( 15418)       |
| PULLT                           | 497 ( 16032)       | 118 ( 3806)      | 157 ( 5064)      | 168 ( 5419)     | 708 ( 22836)       |
| TOTAL                           | 869 ( 28032)       |                  |                  |                 | 1312 ( 42321)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                  |                 |                    |
| LAKE MURON                      | 59 ( 1903)         | 27 ( 871)        | 16 ( 516)        | 23 ( 742)       | 59 ( 1903)         |
| AG. POINT                       | 60 ( 1935)         | 32 ( 1032)       | 48 ( 1548)       | 16 ( 516)       | 126 ( 4064)        |
| PULLT                           | 190 ( 6129)        | 59 ( 1903)       | 64 ( 2064)       | 39 ( 1256)      | 286 ( 9225)        |
| TOTAL                           | 309 ( 9967)        |                  |                  |                 | 471 ( 15192)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                  |                 |                    |
| LAKE MURON                      | 3934 ( 126903)     | 1476 ( 47613)    | 493 ( 15903)     | 1032 ( 33290)   | 3934 ( 126903)     |
| AG. POINT                       | 2746 ( 90258)      | 191 ( 6161)      | 242 ( 7806)      | 120 ( 3871)     | 5799 ( 187064)     |
| PULLT                           | 224 ( 7387)        | 1667 ( 53774)    | 735 ( 23709)     | 1152 ( 37161)   | 782 ( 25225)       |
| TOTAL                           | 6961 ( 224548)     |                  |                  |                 | 10515 ( 339192)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                  |                 |                    |
| LAKE MURON                      | 167 ( 5387)        | 53 ( 1710)       | 57 ( 1839)       | 49 ( 1581)      | 167 ( 5387)        |
| AG. POINT                       | 152 ( 4903)        | 260 ( 8387)      | 457 ( 14742)     | 136 ( 4387)     | 311 ( 10033)       |
| PULLT                           | 1427 ( 46032)      | 313 ( 10097)     | 514 ( 16581)     | 185 ( 5968)     | 2280 ( 73548)      |
| TOTAL                           | 1746 ( 56322)      |                  |                  |                 | 2758 ( 88968)      |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                  |                 |                    |
| LAKE MURON                      | 3933 ( 126871)     | 163 ( 5258)      | 178 ( 5742)      | 417 ( 13452)    | 3933 ( 126871)     |
| AG. POINT                       | 825 ( 26613)       | 80 ( 2581)       | 137 ( 4419)      | 42 ( 1355)      | 1583 ( 51065)      |
| PULLT                           | 516 ( 16645)       | 243 ( 7839)      | 315 ( 10161)     | 459 ( 14807)    | 775 ( 25000)       |
| TOTAL                           | 5274 ( 170129)     |                  |                  |                 | 6291 ( 202936)     |
| <b>CHLORIDE</b>                 |                    |                  |                  |                 |                    |
| LAKE MURON                      | 105124 ( 3391097)  | 3189 ( 1028677)  | 81490 ( 2628710) | 11488 ( 370581) | 105124 ( 3391097)  |
| AG. POINT                       | 87477 ( 2176677)   | 5328 ( 171871)   | 9613 ( 310097)   | 2408 ( 93806)   | 192344 ( 6204645)  |
| PULLT                           | 170130 ( 5488065)  | 37217 ( 1200548) | 91103 ( 2938407) | 14396 ( 464387) | 187479 ( 6063839)  |
| TOTAL                           | 342731 ( 11055839) |                  |                  |                 | 485447 ( 15659581) |
| <b>SILICA</b>                   |                    |                  |                  |                 |                    |
| LAKE MURON                      | 9536 ( 307613)     | 3518 ( 113484)   | 1482 ( 47806)    | 2588 ( 83484)   | 9536 ( 307613)     |
| AG. POINT                       | 4240 ( 138387)     | 165 ( 5323)      | 300 ( 9677)      | 91 ( 2935)      | 11878 ( 383161)    |
| PULLT                           | 700 ( 22581)       | 3683 ( 118807)   | 1782 ( 57483)    | 2674 ( 86419)   | 1256 ( 40516)      |
| TOTAL                           | 14526 ( 468581)    |                  |                  |                 | 22670 ( 731290)    |

# LAKE LOADINGS IN METRIC TONS PER MONTH FOR JUNE, 1976 (AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLN BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 122 ( 4067)       | 15 ( 500)       | 15 ( 500)        | 26 ( 867)      | 122 ( 4067)        |
| LAKE POINTE                     | 32 ( 1067)        | 59 ( 1967)      | 110 ( 3667)      | 30 ( 1000)     | 88 ( 2934)         |
| LAKE POINTE                     | 471 ( 15900)      | 74 ( 2467)      | 125 ( 4167)      | 56 ( 1867)     | 676 ( 22534)       |
| TOTAL                           | 631 ( 21034)      |                 |                  |                | 886 ( 29535)       |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 58 ( 1933)        | 8 ( 267)        | 5 ( 167)         | 4 ( 133)       | 58 ( 1933)         |
| LAKE POINTE                     | 9 ( 300)          | 30 ( 1000)      | 46 ( 1533)       | 15 ( 500)      | 26 ( 867)          |
| LAKE POINTE                     | 180 ( 6000)       | 34 ( 1267)      | 51 ( 1700)       | 19 ( 633)      | 271 ( 9033)        |
| TOTAL                           | 247 ( 8233)       |                 |                  |                | 355 ( 11833)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 3841 ( 128033)    | 633 ( 21100)    | 304 ( 10133)     | 184 ( 6133)    | 3841 ( 128033)     |
| LAKE POINTE                     | 407 ( 13567)      | 185 ( 6167)     | 234 ( 7800)      | 116 ( 3867)    | 1528 ( 50933)      |
| LAKE POINTE                     | 221 ( 7367)       | 418 ( 27267)    | 538 ( 17933)     | 300 ( 10000)   | 756 ( 25201)       |
| TOTAL                           | 4469 ( 149667)    |                 |                  |                | 6125 ( 204167)     |
| <b>AMMONIA-NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 163 ( 5433)       | 6 ( 200)        | 15 ( 500)        | 8 ( 267)       | 163 ( 5433)        |
| LAKE POINTE                     | 25 ( 833)         | 200 ( 6667)     | 439 ( 14633)     | 93 ( 3100)     | 54 ( 1800)         |
| LAKE POINTE                     | 1369 ( 45633)     | 206 ( 6867)     | 454 ( 15133)     | 101 ( 3367)    | 2101 ( 70033)      |
| TOTAL                           | 1557 ( 51896)     |                 |                  |                | 2318 ( 77266)      |
| <b>ORGANIC-NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 3840 ( 128000)    | 74 ( 2467)      | 80 ( 2667)       | 165 ( 5500)    | 3840 ( 128000)     |
| LAKE POINTE                     | 160 ( 5333)       | 72 ( 2400)      | 135 ( 4500)      | 41 ( 1367)     | 479 ( 15967)       |
| LAKE POINTE                     | 500 ( 16667)      | 146 ( 4867)     | 215 ( 7167)      | 206 ( 6867)    | 748 ( 24934)       |
| TOTAL                           | 4500 ( 150000)    |                 |                  |                | 5067 ( 168901)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 102634 ( 3421133) | 12899 ( 429967) | 44360 ( 1478667) | 3715 ( 123833) | 102634 ( 3421133)  |
| LAKE POINTE                     | 13478 ( 449267)   | 5156 ( 171867)  | 9303 ( 310100)   | 2815 ( 93833)  | 74452 ( 2481734)   |
| LAKE POINTE                     | 164642 ( 5488067) | 14055 ( 601834) | 53663 ( 1788767) | 6530 ( 217666) | 181916 ( 6063867)  |
| TOTAL                           | 280754 ( 9354467) |                 |                  |                | 359002 ( 11966734) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURDOCK                    | 9311 ( 310367)    | 1836 ( 61200)   | 936 ( 31200)     | 756 ( 25200)   | 9311 ( 310367)     |
| LAKE POINTE                     | 949 ( 31633)      | 160 ( 5333)     | 291 ( 9700)      | 88 ( 2933)     | 4477 ( 149233)     |
| LAKE POINTE                     | 677 ( 22567)      | 1496 ( 6533)    | 1227 ( 40900)    | 844 ( 28133)   | 1216 ( 40533)      |
| TOTAL                           | 10937 ( 364567)   |                 |                  |                | 15004 ( 50133)     |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JULY, 1976  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                |                    |
| LAKE MURRAY                     | 127 ( 4097)       | 67 ( 2161)       | 58 ( 1871)     | 127 ( 4097)        |
| LOW POINT                       | 150 ( 4587)       | 127 ( 4097)      | 32 ( 1032)     | 264 ( 8516)        |
| PULP                            | 495 ( 15468)      | 194 ( 6258)      | 90 ( 2903)     | 708 ( 22839)       |
| TOTAL                           | 758 ( 24452)      |                  |                | 1099 ( 35452)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                  |                |                    |
| LAKE MURRAY                     | 60 ( 1935)        | 9 ( 290)         | 6 ( 194)       | 60 ( 1935)         |
| LOW POINT                       | 33 ( 1065)        | 56 ( 1806)       | 16 ( 516)      | 52 ( 1678)         |
| PULP                            | 167 ( 6032)       | 65 ( 2096)       | 22 ( 710)      | 284 ( 9160)        |
| TOTAL                           | 260 ( 9032)       |                  |                | 396 ( 12773)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                  |                |                    |
| LAKE MURRAY                     | 3987 ( 128613)    | 556 ( 17935)     | 399 ( 12871)   | 3987 ( 128613)     |
| LOW POINT                       | 1732 ( 55871)     | 241 ( 7774)      | 120 ( 3871)    | 2663 ( 92354)      |
| PULP                            | 229 ( 7387)       | 797 ( 25709)     | 514 ( 16742)   | 781 ( 25193)       |
| TOTAL                           | 5948 ( 191871)    |                  |                | 7631 ( 246160)     |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                |                    |
| LAKE MURRAY                     | 169 ( 5452)       | 74 ( 2387)       | 17 ( 548)      | 169 ( 5452)        |
| LOW POINT                       | 42 ( 2645)        | 490 ( 15806)     | 106 ( 3419)    | 175 ( 5645)        |
| PULP                            | 1415 ( 45635)     | 564 ( 18193)     | 123 ( 3967)    | 2189 ( 70612)      |
| TOTAL                           | 1666 ( 53742)     |                  |                | 2533 ( 81709)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                |                    |
| LAKE MURRAY                     | 3985 ( 128548)    | 245 ( 7903)      | 205 ( 6613)    | 3985 ( 128548)     |
| LOW POINT                       | 442 ( 14254)      | 140 ( 4516)      | 42 ( 1355)     | 926 ( 29871)       |
| PULP                            | 516 ( 16645)      | 385 ( 12419)     | 247 ( 7968)    | 771 ( 24871)       |
| TOTAL                           | 4943 ( 159451)    |                  |                | 5682 ( 183290)     |
| <b>CHLORIDE</b>                 |                   |                  |                |                    |
| LAKE MURRAY                     | 106520 ( 3436129) | 90361 ( 2914871) | 5912 ( 190710) | 106520 ( 3436129)  |
| LOW POINT                       | 18243 ( 58844)    | 9613 ( 310097)   | 2908 ( 93806)  | 123360 ( 3979355)  |
| PULP                            | 170130 ( 5488465) | 99974 ( 3224968) | 8020 ( 284516) | 187479 ( 6063839)  |
| TOTAL                           | 294893 ( 9512678) |                  |                | 417859 ( 13479323) |
| <b>SILICA</b>                   |                   |                  |                |                    |
| LAKE MURRAY                     | 9663 ( 311710)    | 1962 ( 63290)    | 1280 ( 41290)  | 9663 ( 311710)     |
| LOW POINT                       | 2490 ( 80323)     | 300 ( 9677)      | 91 ( 2935)     | 6864 ( 221419)     |
| PULP                            | 700 ( 22581)      | 2262 ( 72967)    | 1371 ( 44225)  | 1256 ( 40516)      |
| TOTAL                           | 12853 ( 414614)   |                  |                | 17783 ( 573645)    |

WASTE LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1976  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     | CENTRAL BASIN | EASTERN BASIN | TOTAL             |
|---------------------------------|-------------------|---------------|---------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |               |               |                   |
| LAKE MURROW                     | 125 ( 4032)       |               |               | 125 ( 4032)       |
| DOCK POINT                      | 71 ( 2290)        |               |               | 71 ( 2290)        |
| TOTAL                           | 196 ( 6322)       |               |               | 196 ( 6322)       |
| <b>ORTHOPHOSPHORUS</b>          |                   |               |               |                   |
| LAKE MURROW                     | 59 ( 1903)        |               |               | 59 ( 1903)        |
| DOCK POINT                      | 14 ( 441)         |               |               | 14 ( 441)         |
| TOTAL                           | 73 ( 2344)        |               |               | 73 ( 2344)        |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |               |               |                   |
| LAKE MURROW                     | 3917 ( 126355)    |               |               | 3917 ( 126355)    |
| DOCK POINT                      | 882 ( 27452)      |               |               | 882 ( 27452)      |
| TOTAL                           | 4800 ( 153807)    |               |               | 4800 ( 153807)    |
| <b>AMMONIA NITROGEN</b>         |                   |               |               |                   |
| LAKE MURROW                     | 166 ( 5355)       |               |               | 166 ( 5355)       |
| DOCK POINT                      | 42 ( 1355)        |               |               | 42 ( 1355)        |
| TOTAL                           | 208 ( 6710)       |               |               | 208 ( 6710)       |
| <b>ORGANIC NITROGEN</b>         |                   |               |               |                   |
| LAKE MURROW                     | 3916 ( 126323)    |               |               | 3916 ( 126323)    |
| DOCK POINT                      | 217 ( 7000)       |               |               | 217 ( 7000)       |
| TOTAL                           | 4133 ( 133323)    |               |               | 4133 ( 133323)    |
| <b>CHLORIDE</b>                 |                   |               |               |                   |
| LAKE MURROW                     | 104659 ( 3376097) |               |               | 104659 ( 3376097) |
| DOCK POINT                      | 7840 ( 252403)    |               |               | 7840 ( 252403)    |
| TOTAL                           | 112500 ( 3628500) |               |               | 112500 ( 3628500) |
| <b>SILICA</b>                   |                   |               |               |                   |
| LAKE MURROW                     | 9494 ( 306258)    |               |               | 9494 ( 306258)    |
| DOCK POINT                      | 1424 ( 45935)     |               |               | 1424 ( 45935)     |
| TOTAL                           | 10918 ( 352193)   |               |               | 10918 ( 352193)   |

# HASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1976 (AVE DAILY LOADS IN KG/DAY)

|                                 | OFF/ST. CLP. BASIN | WESTERN BASIN  | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|--------------------|----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                |                  |                |                    |
| LAKE MURDOCK                    | 118 ( 3933)        | 1 ( 33)        | 28 ( 933)        | 28 ( 933)      | 118 ( 3933)        |
| NO. POINT                       | 50 ( 1000)         | 34 ( 1133)     | 118 ( 3933)      | 30 ( 1000)     | 87 ( 2099)         |
| POINT                           | 473 ( 15767)       | 35 ( 1166)     | 146 ( 4866)      | 58 ( 1933)     | 655 ( 21833)       |
| TOTAL                           | 621 ( 20700)       |                |                  |                | 860 ( 28665)       |
| <b>ORTHU PHOSPHORUS</b>         |                    |                |                  |                |                    |
| LAKE MURDOCK                    | 56 ( 1867)         | 2 ( 67)        | 4 ( 133)         | 6 ( 200)       | 56 ( 1867)         |
| NO. POINT                       | 9 ( 300)           | 18 ( 600)      | 48 ( 1600)       | 15 ( 500)      | 21 ( 700)          |
| POINT                           | 177 ( 5900)        | 20 ( 667)      | 52 ( 1733)       | 21 ( 700)      | 258 ( 8600)        |
| TOTAL                           | 242 ( 8067)        |                |                  |                | 335 ( 11167)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                |                  |                |                    |
| LAKE MURDOCK                    | 3706 ( 123533)     | 14 ( 467)      | 257 ( 8567)      | 234 ( 7800)    | 3706 ( 123533)     |
| NO. POINT                       | 335 ( 11100)       | 133 ( 4433)    | 232 ( 7733)      | 116 ( 3867)    | 838 ( 27934)       |
| POINT                           | 269 ( 6967)        | 147 ( 4900)    | 489 ( 16300)     | 350 ( 11667)   | 690 ( 23000)       |
| TOTAL                           | 4294 ( 141600)     |                |                  |                | 5234 ( 174467)     |
| <b>AMMONIA NITROGEN</b>         |                    |                |                  |                |                    |
| LAKE MURDOCK                    | 157 ( 5233)        | 1 ( 33)        | 85 ( 2833)       | 7 ( 233)       | 157 ( 5233)        |
| NO. POINT                       | 21 ( 700)          | 130 ( 4333)    | 480 ( 16667)     | 99 ( 3300)     | 114 ( 3799)        |
| POINT                           | 1366 ( 45533)      | 131 ( 4366)    | 525 ( 17500)     | 106 ( 3533)    | 2035 ( 67833)      |
| TOTAL                           | 1544 ( 51466)      |                |                  |                | 2306 ( 76665)      |
| <b>ORGANIC NITROGEN</b>         |                    |                |                  |                |                    |
| LAKE MURDOCK                    | 3705 ( 123500)     | 8 ( 267)       | 116 ( 3867)      | 141 ( 4700)    | 3705 ( 123500)     |
| NO. POINT                       | 122 ( 4067)        | 49 ( 1633)     | 135 ( 4500)      | 41 ( 1367)     | 367 ( 12901)       |
| POINT                           | 495 ( 16500)       | 57 ( 1900)     | 251 ( 8367)      | 182 ( 6067)    | 720 ( 24000)       |
| TOTAL                           | 4322 ( 144067)     |                |                  |                | 4812 ( 160401)     |
| <b>CHLORIDE</b>                 |                    |                |                  |                |                    |
| LAKE MURDOCK                    | 99032 ( 3301067)   | 2694 ( 89967)  | 65366 ( 2112200) | 3826 ( 127533) | 99032 ( 3301067)   |
| NO. POINT                       | 3526 ( 117333)     | 3895 ( 129833) | 9303 ( 310100)   | 2815 ( 93833)  | 73411 ( 2447033)   |
| POINT                           | 161316 ( 5377200)  | 6594 ( 219800) | 72669 ( 2422300) | 6641 ( 221366) | 177329 ( 5910966)  |
| TOTAL                           | 263868 ( 8795067)  |                |                  |                | 349772 ( 11659066) |
| <b>SILICA</b>                   |                    |                |                  |                |                    |
| LAKE MURDOCK                    | 8984 ( 299467)     | 265 ( 8833)    | 1024 ( 34267)    | 776 ( 25667)   | 8984 ( 299467)     |
| NO. POINT                       | 720 ( 24000)       | 160 ( 5333)    | 291 ( 9700)      | 86 ( 2933)     | 2769 ( 92467)      |
| POINT                           | 677 ( 22567)       | 425 ( 14166)   | 1319 ( 43967)    | 864 ( 28800)   | 1216 ( 40533)      |
| TOTAL                           | 10361 ( 346034)    |                |                  |                | 12989 ( 432467)    |

WASTE LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1976  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN  | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                  |                |                    |
| LAKE MURDOCK                    | 117 ( 3774)       |                |                  |                | 117 ( 3774)        |
| OUT POINT                       | 59 ( 1250)        | 1 ( 32)        | 27 ( 471)        | 61 ( 1968)     | 128 ( 4129)        |
| POINT                           | 491 ( 15039)      | 40 ( 1290)     | 111 ( 3581)      | 32 ( 1032)     | 674 ( 21742)       |
| TOTAL                           | 647 ( 20071)      | 41 ( 1322)     | 138 ( 4452)      | 93 ( 3000)     | 919 ( 29645)       |
| <b>ORTHOPHOSPHORUS</b>          |                   |                |                  |                |                    |
| LAKE MURDOCK                    | 55 ( 1774)        |                |                  |                | 55 ( 1774)         |
| OUT POINT                       | 10 ( 323)         | 3 ( 97)        | 6 ( 194)         | 6 ( 194)       | 25 ( 808)          |
| POINT                           | 185 ( 5965)       | 21 ( 677)      | 48 ( 1548)       | 16 ( 516)      | 270 ( 8709)        |
| TOTAL                           | 250 ( 8065)       | 24 ( 774)      | 54 ( 1742)       | 22 ( 710)      | 350 ( 11291)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                |                  |                |                    |
| LAKE MURDOCK                    | 3656 ( 117935)    |                |                  |                | 3656 ( 117935)     |
| OUT POINT                       | 457 ( 14742)      | 28 ( 903)      | 276 ( 8903)      | 474 ( 15290)   | 1235 ( 39838)      |
| POINT                           | 228 ( 7355)       | 180 ( 5806)    | 238 ( 7677)      | 120 ( 3871)    | 766 ( 24709)       |
| TOTAL                           | 4341 ( 140632)    | 208 ( 6709)    | 514 ( 16580)     | 594 ( 19161)   | 5657 ( 182482)     |
| <b>AMMONIA NITROGEN</b>         |                   |                |                  |                |                    |
| LAKE MURDOCK                    | 155 ( 5000)       |                |                  |                | 155 ( 5000)        |
| OUT POINT                       | 25 ( 806)         | 1 ( 32)        | 78 ( 2516)       | 84 ( 1419)     | 148 ( 4773)        |
| POINT                           | 1414 ( 45613)     | 145 ( 4677)    | 451 ( 14548)     | 105 ( 3387)    | 2115 ( 66225)      |
| TOTAL                           | 1594 ( 51419)     | 146 ( 4709)    | 529 ( 17064)     | 149 ( 4806)    | 2418 ( 77998)      |
| <b>ORGANIC NITROGEN</b>         |                   |                |                  |                |                    |
| LAKE MURDOCK                    | 3655 ( 117903)    |                |                  |                | 3655 ( 117903)     |
| OUT POINT                       | 145 ( 4677)       | 14 ( 452)      | 120 ( 3871)      | 349 ( 11258)   | 628 ( 20258)       |
| POINT                           | 516 ( 16645)      | 59 ( 1903)     | 135 ( 4355)      | 42 ( 1355)     | 752 ( 24258)       |
| TOTAL                           | 4316 ( 139225)    | 73 ( 2355)     | 255 ( 8226)      | 391 ( 12613)   | 5035 ( 162419)     |
| <b>CHLORIDE</b>                 |                   |                |                  |                |                    |
| LAKE MURDOCK                    | 97682 ( 3151032)  |                |                  |                | 97682 ( 3151032)   |
| OUT POINT                       | 5871 ( 187307)    | 4153 ( 133968) | 78474 ( 2531419) | 6153 ( 198484) | 94651 ( 3053258)   |
| POINT                           | 170130 ( 5488065) | 4606 ( 148581) | 9613 ( 310097)   | 2908 ( 93806)  | 187257 ( 6040549)  |
| TOTAL                           | 273683 ( 8828094) | 8759 ( 282549) | 88087 ( 2841516) | 9061 ( 292290) | 379590 ( 12244839) |
| <b>SILICA</b>                   |                   |                |                  |                |                    |
| LAKE MURDOCK                    | 8861 ( 285839)    |                |                  |                | 8861 ( 285839)     |
| OUT POINT                       | 949 ( 30613)      | 481 ( 15516)   | 1106 ( 35677)    | 1535 ( 49516)  | 4071 ( 131322)     |
| POINT                           | 700 ( 22581)      | 164 ( 5290)    | 300 ( 9677)      | 91 ( 2935)     | 1255 ( 40483)      |
| TOTAL                           | 10510 ( 339033)   | 645 ( 20806)   | 1406 ( 45354)    | 1626 ( 52451)  | 14187 ( 457644)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1976  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLW BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 105 ( 3500)       |                 |                  |                | 105 ( 3500)        |
| W. BASIN POINT                  | 65 ( 2167)        | 1 ( 33)         | 29 ( 967)        | 54 ( 1800)     | 149 ( 4967)        |
| E. BASIN POINT                  | 475 ( 15833)      | 34 ( 1267)      | 104 ( 3467)      | 30 ( 1000)     | 647 ( 21567)       |
| TOTAL                           | 645 ( 21500)      | 39 ( 1300)      | 133 ( 4434)      | 84 ( 2800)     | 901 ( 30034)       |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 49 ( 1633)        |                 |                  |                | 49 ( 1633)         |
| W. BASIN POINT                  | 13 ( 433)         | 3 ( 100)        | 8 ( 267)         | 6 ( 267)       | 32 ( 1067)         |
| E. BASIN POINT                  | 178 ( 5933)       | 20 ( 667)       | 46 ( 1533)       | 16 ( 533)      | 260 ( 8666)        |
| TOTAL                           | 240 ( 7999)       | 23 ( 767)       | 54 ( 1800)       | 24 ( 800)      | 341 ( 11366)       |
| <b>NITRATE-NITRILE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 3302 ( 110067)    |                 |                  |                | 3302 ( 110067)     |
| W. BASIN POINT                  | 713 ( 23967)      | 29 ( 967)       | 264 ( 8800)      | 458 ( 15267)   | 1470 ( 49001)      |
| E. BASIN POINT                  | 220 ( 7333)       | 139 ( 4633)     | 231 ( 7700)      | 116 ( 3867)    | 706 ( 23533)       |
| TOTAL                           | 4243 ( 141567)    | 168 ( 5600)     | 495 ( 16500)     | 574 ( 19134)   | 5476 ( 182601)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 140 ( 4667)       |                 |                  |                | 140 ( 4667)        |
| W. BASIN POINT                  | 30 ( 1000)        | 1 ( 33)         | 74 ( 2467)       | 35 ( 1167)     | 140 ( 4667)        |
| E. BASIN POINT                  | 1368 ( 45600)     | 145 ( 4833)     | 436 ( 14333)     | 101 ( 3367)    | 2050 ( 68333)      |
| TOTAL                           | 1538 ( 51267)     | 146 ( 4866)     | 510 ( 17000)     | 136 ( 4534)    | 2330 ( 77667)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 3301 ( 110033)    |                 |                  |                | 3301 ( 110033)     |
| W. BASIN POINT                  | 182 ( 6067)       | 14 ( 467)       | 134 ( 4467)      | 327 ( 10900)   | 657 ( 21901)       |
| E. BASIN POINT                  | 500 ( 16667)      | 54 ( 1800)      | 125 ( 4167)      | 41 ( 1367)     | 720 ( 24001)       |
| TOTAL                           | 3983 ( 132767)    | 68 ( 2267)      | 259 ( 8634)      | 368 ( 12267)   | 4678 ( 155935)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 88229 ( 2940967)  |                 |                  |                | 88229 ( 2940967)   |
| W. BASIN POINT                  | 6849 ( 228300)    | 6452 ( 215067)  | 8838 ( 2954000)  | 5726 ( 190867) | 107665 ( 3588834)  |
| E. BASIN POINT                  | 160494 ( 5349667) | 4049 ( 134967)  | 9303 ( 310100)   | 2815 ( 93833)  | 176663 ( 5888767)  |
| TOTAL                           | 255574 ( 8519134) | 10501 ( 350034) | 97441 ( 3264700) | 8541 ( 284700) | 372557 ( 12418568) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURDOJ                     | 8004 ( 266800)    |                 |                  |                | 8004 ( 266800)     |
| W. BASIN POINT                  | 1187 ( 39567)     | 422 ( 14067)    | 1138 ( 37933)    | 1466 ( 48867)  | 4213 ( 140434)     |
| E. BASIN POINT                  | 677 ( 22567)      | 160 ( 5333)     | 291 ( 9700)      | 88 ( 2933)     | 1216 ( 40533)      |
| TOTAL                           | 9868 ( 324034)    | 582 ( 19400)    | 1429 ( 47633)    | 1554 ( 51800)  | 13433 ( 447767)    |

# WAST. LOADINGS IN KILIC TONS PER MONTH FOR DECEMBER, 1976 (AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLM BASIN | WESTERN BASIN   | CENTRAL BASIN     | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|-------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                   |                |                    |
| LAKE HURON                      | 101 ( 325P)       | 1 ( 32)         | 49 ( 1541)        | 40 ( 1290)     | 101 ( 3258)        |
| LAKE POINT                      | 41 ( 1323)        |                 |                   | 32 ( 1032)     | 131 ( 4226)        |
| LAKE POINT                      | 490 ( 15406)      | 45 ( 1452)      | 112 ( 3613)       | 72 ( 2322)     | 679 ( 21903)       |
| TOTAL                           | 632 ( 20387)      | 46 ( 1484)      | 161 ( 5194)       |                | 911 ( 29387)       |
| <b>UNITED PHOSPHORUS</b>        |                   |                 |                   |                |                    |
| LAKE HURON                      | 47 ( 1516)        |                 |                   |                | 47 ( 1516)         |
| LAKE POINT                      | 14 ( 452)         | 2 ( 65)         | 7 ( 226)          | 6 ( 194)       | 29 ( 937)          |
| LAKE POINT                      | 184 ( 5935)       | 22 ( 710)       | 49 ( 1581)        | 16 ( 516)      | 271 ( 8742)        |
| TOTAL                           | 245 ( 7903)       | 24 ( 775)       | 56 ( 1807)        | 22 ( 710)      | 347 ( 11195)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                   |                |                    |
| LAKE HURON                      | 3168 ( 102194)    |                 |                   |                | 3168 ( 102194)     |
| LAKE POINT                      | 499 ( 16097)      | 42 ( 1355)      | 405 ( 13065)      | 273 ( 8806)    | 1219 ( 39323)      |
| LAKE POINT                      | 228 ( 7355)       | 178 ( 5742)     | 240 ( 7742)       | 120 ( 3871)    | 766 ( 24710)       |
| TOTAL                           | 3895 ( 125646)    | 220 ( 7097)     | 645 ( 20807)      | 393 ( 12677)   | 5153 ( 166227)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                   |                |                    |
| LAKE HURON                      | 135 ( 4355)       |                 |                   |                | 135 ( 4355)        |
| LAKE POINT                      | 31 ( 1000)        | 1 ( 32)         | 117 ( 3774)       | 26 ( 839)      | 175 ( 5645)        |
| LAKE POINT                      | 1413 ( 45581)     | 155 ( 5000)     | 456 ( 14710)      | 96 ( 3097)     | 2120 ( 68388)      |
| TOTAL                           | 1579 ( 50936)     | 156 ( 5032)     | 573 ( 18484)      | 122 ( 3936)    | 2430 ( 78388)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                   |                |                    |
| LAKE HURON                      | 3168 ( 102194)    |                 |                   |                | 3168 ( 102194)     |
| LAKE POINT                      | 142 ( 4581)       | 15 ( 484)       | 170 ( 5484)       | 225 ( 7258)    | 552 ( 17607)       |
| LAKE POINT                      | 516 ( 16645)      | 68 ( 2194)      | 133 ( 4290)       | 42 ( 1355)     | 759 ( 24484)       |
| TOTAL                           | 3826 ( 123420)    | 83 ( 2678)      | 303 ( 9774)       | 267 ( 8613)    | 4479 ( 144485)     |
| <b>CHLORIDE</b>                 |                   |                 |                   |                |                    |
| LAKE HURON                      | 84658 ( 2730903)  |                 |                   |                | 84658 ( 2730903)   |
| LAKE POINT                      | 6014 ( 194006)    | 4915 ( 158548)  | 113492 ( 3661032) | 4459 ( 143839) | 128880 ( 4157419)  |
| LAKE POINT                      | 165123 ( 5326548) | 5238 ( 168988)  | 9613 ( 310097)    | 2908 ( 93806)  | 182882 ( 5899419)  |
| TOTAL                           | 255795 ( 8251451) | 10153 ( 327516) | 123105 ( 3971129) | 7367 ( 237645) | 396470 ( 12787741) |
| <b>SILICA</b>                   |                   |                 |                   |                |                    |
| LAKE HURON                      | 7680 ( 247742)    |                 |                   |                | 7680 ( 247742)     |
| LAKE POINT                      | 941 ( 30355)      | 695 ( 22419)    | 1570 ( 50645)     | 1264 ( 40774)  | 4470 ( 144193)     |
| LAKE POINT                      | 709 ( 22581)      | 165 ( 5323)     | 300 ( 9677)       | 91 ( 2935)     | 1256 ( 40516)      |
| TOTAL                           | 9321 ( 300678)    | 860 ( 27742)    | 1870 ( 60322)     | 1355 ( 43709)  | 13406 ( 432451)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JANUARY, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN  | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                 |                |                   |
| LAKE HURON                      | 81 ( 2613)        |                |                 |                | 81 ( 2613)        |
| NEW POINT                       | 14 ( 452)         | 1 ( 32)        | 5 ( 161)        | 12 ( 387)      | 32 ( 1032)        |
| POINT                           | 376 ( 12129)      | 50 ( 1613)     | 125 ( 4032)     | 33 ( 1065)     | 584 ( 18839)      |
| TOTAL                           | 471 ( 15194)      | 51 ( 1645)     | 130 ( 4193)     | 45 ( 1452)     | 697 ( 22484)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                |                 |                |                   |
| LAKE HURON                      | 38 ( 1226)        |                |                 |                | 38 ( 1226)        |
| NEW POINT                       | 2 ( 65)           |                |                 |                | 2 ( 65)           |
| POINT                           | 152 ( 4903)       | 26 ( 839)      | 66 ( 2129)      | 17 ( 548)      | 261 ( 8419)       |
| TOTAL                           | 192 ( 6194)       | 27 ( 871)      | 70 ( 2256)      | 19 ( 613)      | 308 ( 9936)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                |                 |                |                   |
| LAKE HURON                      | 2542 ( 82000)     |                |                 |                | 2542 ( 82000)     |
| NEW POINT                       | 125 ( 4032)       | 26 ( 839)      | 33 ( 1065)      | 70 ( 2258)     | 254 ( 8194)       |
| POINT                           | 224 ( 7226)       | 156 ( 5032)    | 234 ( 7548)     | 115 ( 3710)    | 729 ( 23516)      |
| TOTAL                           | 2891 ( 93258)     | 182 ( 5871)    | 267 ( 8613)     | 185 ( 5968)    | 3525 ( 113710)    |
| <b>AMMONIA NITROGEN</b>         |                   |                |                 |                |                   |
| LAKE HURON                      | 108 ( 3484)       |                |                 |                | 108 ( 3484)       |
| NEW POINT                       | 16 ( 516)         | 0 ( 0)         | 2 ( 65)         | 7 ( 226)       | 25 ( 807)         |
| POINT                           | 1203 ( 38806)     | 154 ( 4968)    | 463 ( 14935)    | 101 ( 3258)    | 1921 ( 61967)     |
| TOTAL                           | 1327 ( 42806)     | 154 ( 4968)    | 465 ( 15000)    | 108 ( 3484)    | 2054 ( 66258)     |
| <b>ORGANIC NITROGEN</b>         |                   |                |                 |                |                   |
| LAKE HURON                      | 2540 ( 81935)     |                |                 |                | 2540 ( 81935)     |
| NEW POINT                       | 42 ( 1364)        | 11 ( 355)      | 33 ( 1065)      | 128 ( 4129)    | 264 ( 8517)       |
| POINT                           | 647 ( 20819)      | 68 ( 2194)     | 121 ( 3903)     | 44 ( 1419)     | 880 ( 28135)      |
| TOTAL                           | 3079 ( 99322)     | 79 ( 2549)     | 154 ( 4968)     | 172 ( 5548)    | 3484 ( 112387)    |
| <b>CHLORIDE</b>                 |                   |                |                 |                |                   |
| LAKE HURON                      | 67912 ( 2190710)  |                |                 |                | 67912 ( 2190710)  |
| NEW POINT                       | 2316 ( 74710)     | 3913 ( 126226) | 2916 ( 94065)   | 2635 ( 91452)  | 11980 ( 386453)   |
| POINT                           | 163597 ( 5276032) | 4941 ( 159387) | 10023 ( 323323) | 2986 ( 96323)  | 181507 ( 5855065) |
| TOTAL                           | 233725 ( 7541452) | 8854 ( 285613) | 12939 ( 417388) | 5621 ( 187775) | 261399 ( 843228)  |
| <b>SILICA</b>                   |                   |                |                 |                |                   |
| LAKE HURON                      | 6161 ( 198742)    |                |                 |                | 6161 ( 198742)    |
| NEW POINT                       | 454 ( 14645)      | 105 ( 3387)    | 318 ( 10258)    | 379 ( 12226)   | 1256 ( 40516)     |
| POINT                           | 637 ( 20548)      | 172 ( 5548)    | 314 ( 10129)    | 93 ( 3000)     | 1216 ( 39225)     |
| TOTAL                           | 7252 ( 233935)    | 277 ( 8935)    | 632 ( 20387)    | 472 ( 15226)   | 8633 ( 278483)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLP BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURPHY                     | 81 ( 2893)        | 31 ( 1107)      | 325 ( 11607)     | 36 ( 1286)     | 81 ( 2893)         |
| FOR POINT                       | 37 ( 1321)        | 63 ( 2250)      | 143 ( 5107)      | 30 ( 1071)     | 429 ( 15321)       |
| POINT                           | 343 ( 12256)      | 94 ( 3357)      | 468 ( 16714)     | 66 ( 2357)     | 579 ( 20678)       |
| TOTAL                           | 461 ( 16468)      |                 |                  |                | 1089 ( 38842)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURPHY                     | 38 ( 1357)        | 8 ( 286)        | 52 ( 1857)       | 1 ( 36)        | 38 ( 1357)         |
| FOR POINT                       | 12 ( 429)         | 32 ( 1143)      | 69 ( 2464)       | 15 ( 536)      | 73 ( 2608)         |
| POINT                           | 148 ( 5066)       | 40 ( 1429)      | 121 ( 4321)      | 16 ( 572)      | 256 ( 9143)        |
| TOTAL                           | 190 ( 6786)       |                 |                  |                | 367 ( 13108)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURPHY                     | 2547 ( 90964)     | 885 ( 31607)    | 1869 ( 66750)    | 185 ( 6607)    | 2547 ( 90964)      |
| FOR POINT                       | 576 ( 20571)      | 165 ( 6007)     | 225 ( 8036)      | 101 ( 3607)    | 3515 ( 125335)     |
| POINT                           | 209 ( 7464)       | 1070 ( 38214)   | 2094 ( 74786)    | 286 ( 10214)   | 720 ( 25714)       |
| TOTAL                           | 3332 ( 118999)    |                 |                  |                | 6762 ( 242213)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURPHY                     | 108 ( 3857)       | 4 ( 143)        | 98 ( 3500)       | 13 ( 464)      | 108 ( 3857)        |
| FOR POINT                       | 30 ( 1071)        | 167 ( 5964)     | 445 ( 15893)     | 91 ( 3250)     | 145 ( 5178)        |
| POINT                           | 1094 ( 39250)     | 171 ( 6107)     | 543 ( 19393)     | 104 ( 3714)    | 1802 ( 64357)      |
| TOTAL                           | 1237 ( 44176)     |                 |                  |                | 2055 ( 73392)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURPHY                     | 2547 ( 90964)     | 198 ( 7071)     | 1119 ( 39964)    | 237 ( 8464)    | 2547 ( 90964)      |
| FOR POINT                       | 144 ( 5144)       | 73 ( 2607)      | 131 ( 4679)      | 39 ( 1393)     | 1742 ( 62213)      |
| POINT                           | 406 ( 14506)      | 271 ( 9678)     | 1250 ( 44643)    | 276 ( 9857)    | 649 ( 23179)       |
| TOTAL                           | 3141 ( 112178)    |                 |                  |                | 4934 ( 176356)     |
| <b>CHLORINE</b>                 |                   |                 |                  |                |                    |
| LAKE MURPHY                     | 68062 ( 2430786)  | 10618 ( 379214) | 69944 ( 2498000) | 4088 ( 146000) | 68062 ( 2430786)   |
| FOR POINT                       | 6241 ( 222493)    | 5113 ( 182607)  | 9088 ( 324571)   | 2696 ( 96286)  | 90891 ( 3246107)   |
| POINT                           | 150910 ( 5389643) | 15731 ( 561821) | 79032 ( 2822571) | 6784 ( 242286) | 147807 ( 5393107)  |
| TOTAL                           | 225213 ( 8043322) |                 |                  |                | 326760 ( 11670000) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURPHY                     | 6174 ( 220500)    | 1071 ( 38250)   | 4453 ( 166179)   | 631 ( 22679)   | 6174 ( 220500)     |
| FOR POINT                       | 1129 ( 40321)     | 159 ( 5679)     | 284 ( 10143)     | 84 ( 3000)     | 7684 ( 274229)     |
| POINT                           | 576 ( 20571)      | 1230 ( 43929)   | 4937 ( 176322)   | 915 ( 32679)   | 1103 ( 39393)      |
| TOTAL                           | 7679 ( 281392)    |                 |                  |                | 14961 ( 534322)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLM BASIN  | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 112 ( 3290)        | 775 ( 25000)     | 505 ( 16290)     | 645 ( 20806)    | 102 ( 3290)        |
| NO. POINT                       | 1330 ( 42903)      | 78 ( 2516)       | 159 ( 5129)      | 33 ( 1065)      | 3255 ( 10499)      |
| POINT                           | 500 ( 12256)       | 78 ( 2516)       | 660 ( 21419)     | 678 ( 21871)    | 650 ( 20966)       |
| TOTAL                           | 1812 ( 50451)      | 853 ( 27516)     |                  |                 | 8007 ( 129257)     |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 48 ( 1548)         | 159 ( 5129)      | 120 ( 3871)      | 54 ( 1742)      | 48 ( 1548)         |
| NO. POINT                       | 202 ( 6516)        | 36 ( 1226)       | 79 ( 2548)       | 17 ( 548)       | 535 ( 17258)       |
| POINT                           | 157 ( 5065)        | 197 ( 6355)      | 199 ( 6419)      | 71 ( 2290)      | 291 ( 9387)        |
| TOTAL                           | 407 ( 13129)       |                  |                  |                 | 874 ( 28193)       |
| <b>NITRATE-NITRILE NITROGEN</b> |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 3186 ( 102774)     | 11408 ( 368000)  | 4773 ( 153968)   | 2194 ( 70774)   | 3186 ( 102774)     |
| NO. POINT                       | 9024 ( 291097)     | 206 ( 6645)      | 249 ( 8032)      | 123 ( 3968)     | 27399 ( 863039)    |
| POINT                           | 231 ( 7452)        | 11614 ( 374645)  | 5022 ( 162000)   | 2317 ( 74742)   | 809 ( 26097)       |
| TOTAL                           | 12441 ( 401523)    |                  |                  |                 | 31394 ( 1012710)   |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 135 ( 4355)        | 252 ( 8129)      | 200 ( 6452)      | 112 ( 3613)     | 135 ( 4355)        |
| NO. POINT                       | 504 ( 16419)       | 302 ( 9742)      | 503 ( 16226)     | 144 ( 4645)     | 1073 ( 34613)      |
| POINT                           | 1259 ( 40613)      | 554 ( 17871)     | 703 ( 22678)     | 256 ( 8256)     | 2208 ( 71226)      |
| TOTAL                           | 1903 ( 61387)      |                  |                  |                 | 3416 ( 110194)     |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 3185 ( 102742)     | 2880 ( 92903)    | 1937 ( 62484)    | 1191 ( 38419)   | 3185 ( 102742)     |
| NO. POINT                       | 3526 ( 113742)     | 86 ( 2744)       | 146 ( 4710)      | 44 ( 1414)      | 9534 ( 307548)     |
| POINT                           | 450 ( 14516)       | 2966 ( 95677)    | 2083 ( 67194)    | 1235 ( 39438)   | 726 ( 23419)       |
| TOTAL                           | 7161 ( 23100)      |                  |                  |                 | 13445 ( 433709)    |
| <b>CHLORIDE</b>                 |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 85123 ( 2745903)   | 70425 ( 2271774) | 62444 ( 2015742) | 22046 ( 711161) | 85123 ( 2745903)   |
| NO. POINT                       | 168702 ( 5442607)  | 5660 ( 182581)   | 10062 ( 324581)  | 2986 ( 96323)   | 241837 ( 7801193)  |
| POINT                           | 340715 ( 10976416) | 76085 ( 2454355) | 72550 ( 2340523) | 25032 ( 807484) | 167410 ( 6045485)  |
| TOTAL                           |                    |                  |                  |                 | 514370 ( 16592581) |
| <b>SILICA</b>                   |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 7722 ( 249097)     | 10883 ( 351065)  | 9821 ( 316806)   | 5871 ( 189387)  | 7722 ( 249097)     |
| NO. POINT                       | 10212 ( 329419)    | 176 ( 5677)      | 314 ( 10129)     | 93 ( 3000)      | 36787 ( 1166677)   |
| POINT                           | 637 ( 20540)       | 11059 ( 356742)  | 10135 ( 326935)  | 5964 ( 192387)  | 1220 ( 39354)      |
| TOTAL                           | 18571 ( 590004)    |                  |                  |                 | 45729 ( 1475126)   |

WASTE LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                    | WEST COAST BASIN   | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|------------------------------------|--------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>            |                    |                  |                  |                 |                    |
| LAKE MURRAY                        | 102 ( 3400)        | 889 ( 29633)     | 213 ( 7100)      | 211 ( 7033)     | 102 ( 3400)        |
| SW. POINT                          | 241 ( 9367)        | 76 ( 2533)       | 153 ( 5100)      | 32 ( 1067)      | 1594 ( 53133)      |
| CUT-I                              | 566 ( 12267)       | 965 ( 32106)     | 366 ( 12200)     | 243 ( 8100)     | 829 ( 20967)       |
| TOTAL                              | 751 ( 25034)       |                  |                  |                 | 2325 ( 77500)      |
| <b>ORTHOPHOSPHORUS</b>             |                    |                  |                  |                 |                    |
| LAKE MURRAY                        | 48 ( 1600)         | 127 ( 4233)      | 48 ( 1600)       | 24 ( 800)       | 48 ( 1600)         |
| SW. POINT                          | 69 ( 2360)         | 37 ( 1233)       | 76 ( 2533)       | 16 ( 533)       | 264 ( 8933)        |
| CUT-I                              | 152 ( 5067)        | 164 ( 5466)      | 124 ( 4133)      | 40 ( 1333)      | 281 ( 9366)        |
| TOTAL                              | 269 ( 8967)        |                  |                  |                 | 597 ( 19899)       |
| <b>NITRATE-NITRIF INTRODUCTION</b> |                    |                  |                  |                 |                    |
| LAKE MURRAY                        | 3184 ( 106133)     | 9568 ( 314933)   | 2640 ( 89333)    | 1179 ( 39300)   | 3184 ( 106133)     |
| SW. POINT                          | 3316 ( 110600)     | 199 ( 6633)      | 281 ( 8033)      | 119 ( 3967)     | 16745 ( 558166)    |
| CUT-I                              | 224 ( 7467)        | 9767 ( 325566)   | 2921 ( 97366)    | 1298 ( 43267)   | 783 ( 26100)       |
| TOTAL                              | 6724 ( 224200)     |                  |                  |                 | 20712 ( 690399)    |
| <b>AMMONIA-NITROGEN</b>            |                    |                  |                  |                 |                    |
| LAKE MURRAY                        | 135 ( 4500)        | 165 ( 5500)      | 92 ( 3067)       | 43 ( 1433)      | 135 ( 4500)        |
| SW. POINT                          | 115 ( 3833)        | 293 ( 9767)      | 476 ( 15867)     | 139 ( 4633)     | 415 ( 13833)       |
| CUT-I                              | 1217 ( 40567)      | 458 ( 15267)     | 568 ( 18934)     | 182 ( 6066)     | 2125 ( 70834)      |
| TOTAL                              | 1467 ( 48900)      |                  |                  |                 | 2675 ( 89167)      |
| <b>ORGANIC NITROGEN</b>            |                    |                  |                  |                 |                    |
| LAKE MURRAY                        | 3183 ( 106100)     | 3235 ( 107833)   | 2904 ( 96800)    | 533 ( 17767)    | 3183 ( 106100)     |
| SW. POINT                          | 810 ( 27000)       | 63 ( 2767)       | 181 ( 4700)      | 42 ( 1400)      | 7482 ( 249400)     |
| CUT-I                              | 435 ( 14500)       | 3318 ( 110600)   | 3045 ( 101500)   | 575 ( 19167)    | 701 ( 23367)       |
| TOTAL                              | 4428 ( 147600)     |                  |                  |                 | 11366 ( 378867)    |
| <b>CHLORIDE</b>                    |                    |                  |                  |                 |                    |
| LAKE MURRAY                        | 85078 ( 2835933)   | 59267 ( 1975567) | 36096 ( 1203200) | 13936 ( 464533) | 85078 ( 2835933)   |
| SW. POINT                          | 73895 ( 2448833)   | 5477 ( 182567)   | 9737 ( 324567)   | 2889 ( 96300)   | 182794 ( 6093133)  |
| CUT-I                              | 163200 ( 5442000)  | 68744 ( 2158134) | 45833 ( 1527767) | 16825 ( 560833) | 181363 ( 6045834)  |
| TOTAL                              | 321453 ( 10727746) |                  |                  |                 | 449235 ( 14974500) |
| <b>SILICA</b>                      |                    |                  |                  |                 |                    |
| LAKE MURRAY                        | 7718 ( 257267)     | 9198 ( 306600)   | 5206 ( 175533)   | 2758 ( 91933)   | 7718 ( 257267)     |
| SW. POINT                          | 8972 ( 165733)     | 170 ( 5667)      | 304 ( 10133)     | 91 ( 3033)      | 22194 ( 739799)    |
| CUT-I                              | 616 ( 20533)       | 9368 ( 312267)   | 5570 ( 185666)   | 2849 ( 94966)   | 1181 ( 39366)      |
| TOTAL                              | 13306 ( 443533)    |                  |                  |                 | 31093 ( 1036432)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MAY, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DELTA/CIN BASIN   | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|-----------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                    |
| LAKE MURKIN                     | 105 ( 3387)       |                 |                 |                | 105 ( 3387)        |
| NO. POINT                       | 34 ( 1226)        | 184 ( 5935)     | 47 ( 1516)      | 33 ( 1065)     | 302 ( 9742)        |
| POLIT                           | 377 ( 12161)      | 75 ( 2419)      | 142 ( 4581)     | 33 ( 1065)     | 627 ( 20226)       |
| TOTAL                           | 520 ( 16774)      | 259 ( 8354)     | 189 ( 6097)     | 66 ( 2130)     | 1034 ( 33555)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                 |                |                    |
| LAKE MURKIN                     | 50 ( 1613)        |                 |                 |                | 50 ( 1613)         |
| NO. POINT                       | 4 ( 126)          | 46 ( 1484)      | 18 ( 581)       | 1 ( 32)        | 74 ( 2387)         |
| POLIT                           | 154 ( 4966)       | 38 ( 1226)      | 71 ( 2290)      | 16 ( 516)      | 279 ( 9000)        |
| TOTAL                           | 213 ( 6671)       | 84 ( 2710)      | 89 ( 2671)      | 17 ( 548)      | 403 ( 13000)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                 |                 |                |                    |
| LAKE MURKIN                     | 3307 ( 106677)    |                 |                 |                | 3307 ( 106677)     |
| NO. POINT                       | 524 ( 17032)      | 3061 ( 98742)   | 828 ( 26710)    | 263 ( 8484)    | 4680 ( 150968)     |
| POLIT                           | 230 ( 7019)       | 204 ( 6645)     | 249 ( 8032)     | 123 ( 3968)    | 806 ( 26064)       |
| TOTAL                           | 4065 ( 131126)    | 3267 ( 105387)  | 1077 ( 34742)   | 386 ( 12452)   | 8795 ( 283709)     |
| <b>AMMONIA-NITROGEN</b>         |                   |                 |                 |                |                    |
| LAKE MURKIN                     | 140 ( 4516)       |                 |                 |                | 140 ( 4516)        |
| NO. POINT                       | 24 ( 774)         | 13 ( 419)       | 21 ( 677)       | 15 ( 484)      | 73 ( 2354)         |
| POLIT                           | 1213 ( 39129)     | 260 ( 8387)     | 480 ( 15484)    | 103 ( 3323)    | 2056 ( 66323)      |
| TOTAL                           | 1377 ( 44119)     | 273 ( 8806)     | 501 ( 16161)    | 118 ( 3807)    | 2269 ( 73193)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                    |
| LAKE MURKIN                     | 3307 ( 106677)    |                 |                 |                | 3307 ( 106677)     |
| NO. POINT                       | 163 ( 5240)       | 822 ( 26516)    | 284 ( 9161)     | 206 ( 6645)    | 1475 ( 47580)      |
| POLIT                           | 450 ( 14516)      | 81 ( 2613)      | 146 ( 4710)     | 44 ( 1419)     | 721 ( 23258)       |
| TOTAL                           | 3920 ( 126451)    | 903 ( 29129)    | 430 ( 13871)    | 250 ( 8064)    | 5503 ( 177515)     |
| <b>CHLORIDE</b>                 |                   |                 |                 |                |                    |
| LAKE MURKIN                     | 88379 ( 2850935)  |                 |                 |                | 88379 ( 2850935)   |
| NO. POINT                       | 7296 ( 235355)    | 24803 ( 793645) | 11734 ( 378516) | 4472 ( 144258) | 46105 ( 1551774)   |
| POLIT                           | 168702 ( 5442800) | 5660 ( 182581)  | 10062 ( 324581) | 2986 ( 96323)  | 187410 ( 6045485)  |
| TOTAL                           | 264377 ( 8528290) | 30263 ( 976226) | 21796 ( 703097) | 7458 ( 240581) | 323894 ( 10448194) |
| <b>SILICA</b>                   |                   |                 |                 |                |                    |
| LAKE MURKIN                     | 8017 ( 255613)    |                 |                 |                | 8017 ( 255613)     |
| NO. POINT                       | 1082 ( 34839)     | 3342 ( 107800)  | 1513 ( 48806)   | 784 ( 25290)   | 6719 ( 216741)     |
| POLIT                           | 637 ( 20540)      | 176 ( 5677)     | 314 ( 10129)    | 93 ( 3000)     | 1220 ( 39354)      |
| TOTAL                           | 9734 ( 314000)    | 3518 ( 113443)  | 1827 ( 58935)   | 877 ( 28290)   | 15956 ( 514708)    |

# HASIN LOADINGS IN METRIC TONS PER MONTH FOR JUNE, 1977 (AVE DAILY LOADS IN KG/DAY)

|                                 | DETS/SLURP HASIN  | WESTERN HASIN  | CENTRAL HASIN  | EASTERN HASIN | TOTAL             |
|---------------------------------|-------------------|----------------|----------------|---------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                |               |                   |
| LAKE MURPHY                     | 103 ( 3433)       |                |                |               | 103 ( 3433)       |
| COU. POINT                      | 11 ( 367)         |                |                |               | 35 ( 1167)        |
| POLIT                           | 364 ( 12133)      | 4 ( 133)       | 8 ( 267)       | 12 ( 400)     | 583 ( 19433)      |
| TOTAL                           | 478 ( 15933)      | 58 ( 1933)     | 129 ( 4300)    | 32 ( 1067)    | 721 ( 24033)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                |                |               |                   |
| LAKE MURPHY                     | 44 ( 1600)        |                |                |               | 44 ( 1600)        |
| COU. POINT                      | 3 ( 100)          |                |                |               | 14 ( 467)         |
| POLIT                           | 147 ( 4900)       | 31 ( 1033)     | 66 ( 2200)     | 15 ( 500)     | 259 ( 8633)       |
| TOTAL                           | 198 ( 6400)       | 34 ( 1133)     | 72 ( 2400)     | 17 ( 567)     | 321 ( 10700)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                |                |               |                   |
| LAKE MURPHY                     | 1214 ( 107267)    |                |                |               | 3214 ( 107267)    |
| COU. POINT                      | 119 ( 3967)       |                |                |               | 491 ( 16367)      |
| POLIT                           | 215 ( 7167)       | 125 ( 4167)    | 174 ( 5800)    | 73 ( 2433)    | 491 ( 16367)      |
| TOTAL                           | 3552 ( 118401)    | 195 ( 6500)    | 236 ( 7867)    | 118 ( 3933)   | 4073 ( 149101)    |
| <b>AMMONIA NITROGEN</b>         |                   |                |                |               |                   |
| LAKE MURPHY                     | 137 ( 4567)       |                |                |               | 137 ( 4567)       |
| COU. POINT                      | 17 ( 567)         |                |                |               | 41 ( 1367)        |
| POLIT                           | 1166 ( 38467)     | 3 ( 100)       | 13 ( 433)      | 8 ( 267)      | 1877 ( 62567)     |
| TOTAL                           | 1320 ( 44001)     | 162 ( 5400)    | 452 ( 15067)   | 97 ( 3233)    | 2055 ( 68501)     |
| <b>ORGANIC NITROGEN</b>         |                   |                |                |               |                   |
| LAKE MURPHY                     | 3217 ( 107233)    |                |                |               | 3217 ( 107233)    |
| COU. POINT                      | 85 ( 2833)        |                |                |               | 314 ( 10466)      |
| POLIT                           | 431 ( 14367)      | 35 ( 1167)     | 64 ( 2133)     | 130 ( 4333)   | 643 ( 22767)      |
| TOTAL                           | 3733 ( 124433)    | 77 ( 2567)     | 133 ( 4433)    | 42 ( 1400)    | 4214 ( 140466)    |
| <b>CHLORINE</b>                 |                   |                |                |               |                   |
| LAKE MURPHY                     | 85978 ( 2865933)  |                |                |               | 85978 ( 2865933)  |
| COU. POINT                      | 1714 ( 57267)     |                |                |               | 15048 ( 501600)   |
| POLIT                           | 162446 ( 5429533) | 6000 ( 200000) | 4618 ( 153933) | 2712 ( 90400) | 160949 ( 6032967) |
| TOTAL                           | 250582 ( 8352733) | 5477 ( 182567) | 9737 ( 324567) | 2889 ( 96300) | 262015 ( 9400500) |
| <b>SILICA</b>                   |                   |                |                |               |                   |
| LAKE MURPHY                     | 7800 ( 260000)    |                |                |               | 7800 ( 260000)    |
| COU. POINT                      | 504 ( 16800)      |                |                |               | 1750 ( 58333)     |
| POLIT                           | 616 ( 20533)      | 289 ( 9633)    | 568 ( 18933)   | 389 ( 12967)  | 1181 ( 39366)     |
| TOTAL                           | 8920 ( 297333)    | 170 ( 5667)    | 304 ( 10133)   | 91 ( 3033)    | 10731 ( 357699)   |

MAJOR LOADINGS IN METRIC TONS PER MONTH FOR JULY, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|----------------|-------------------|
| DET/ST. CLK BASIN:              |                   |                 |                |                   |
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                |                   |
| LAKE MURDOCK                    | 106 ( 3419)       |                 |                | 106 ( 3419)       |
| COO. POINT                      | 16 ( 501)         |                 |                | 16 ( 501)         |
| PULIT                           | 376 ( 12129)      | 97 ( 3129)      | 31 ( 1000)     | 621 ( 20033)      |
| TOTAL                           | 500 ( 16129)      | 103 ( 4613)     | 64 ( 2065)     | 912 ( 29420)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                |                   |
| LAKE MURDOCK                    | 50 ( 1613)        |                 |                | 50 ( 1613)        |
| COO. POINT                      | 3 ( 129)          |                 |                | 3 ( 1097)         |
| PULIT                           | 152 ( 4903)       | 16 ( 516)       | 2 ( 65)        | 277 ( 8935)       |
| TOTAL                           | 206 ( 6645)       | 73 ( 2355)      | 19 ( 613)      | 361 ( 11645)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                |                   |
| LAKE MURDOCK                    | 3325 ( 107250)    |                 |                | 3325 ( 107250)    |
| COO. POINT                      | 212 ( 6839)       | 1151 ( 37129)   | 216 ( 6968)    | 2599 ( 83839)     |
| PULIT                           | 227 ( 7323)       | 249 ( 8032)     | 123 ( 3968)    | 605 ( 25968)      |
| TOTAL                           | 3764 ( 121420)    | 1400 ( 45161)   | 339 ( 10936)   | 6729 ( 217065)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                |                   |
| LAKE MURDOCK                    | 141 ( 4500)       |                 |                | 141 ( 4500)       |
| COO. POINT                      | 18 ( 581)         |                 |                | 64 ( 2065)        |
| PULIT                           | 1207 ( 38935)     | 31 ( 1000)      | 14 ( 452)      | 1966 ( 63420)     |
| TOTAL                           | 1366 ( 44064)     | 479 ( 15452)    | 103 ( 3323)    | 2171 ( 70033)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                |                   |
| LAKE MURDOCK                    | 3324 ( 107226)    |                 |                | 3324 ( 107226)    |
| COO. POINT                      | 96 ( 3161)        | 470 ( 15161)    | 194 ( 6419)    | 1005 ( 32418)     |
| PULIT                           | 400 ( 14452)      | 146 ( 4710)     | 44 ( 1419)     | 717 ( 23129)      |
| TOTAL                           | 3820 ( 124639)    | 616 ( 19871)    | 203 ( 7638)    | 5046 ( 162773)    |
| <b>CHLORIDE</b>                 |                   |                 |                |                   |
| LAKE MURDOCK                    | 8844 ( 2865935)   |                 |                | 8844 ( 2865935)   |
| COO. POINT                      | 2487 ( 80226)     | 1449 ( 467710)  | 4137 ( 133452) | 3176 ( 1005678)   |
| PULIT                           | 165403 ( 5335581) | 10062 ( 324581) | 2986 ( 96323)  | 164111 ( 5939066) |
| TOTAL                           | 256134 ( 8261742) | 24561 ( 792291) | 7123 ( 229775) | 304131 ( 9810679) |
| <b>SILICA</b>                   |                   |                 |                |                   |
| LAKE MURDOCK                    | 8060 ( 260000)    |                 |                | 8060 ( 260000)    |
| COO. POINT                      | 624 ( 20129)      | 2177 ( 70226)   | 803 ( 25903)   | 4802 ( 154903)    |
| PULIT                           | 637 ( 20500)      | 314 ( 10129)    | 93 ( 3000)     | 1220 ( 39354)     |
| TOTAL                           | 9321 ( 30677)     | 2491 ( 80355)   | 896 ( 26903)   | 14082 ( 454237)   |

WASTE LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WEST. COA BASIN   | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 106 ( 3419)       | 15 ( 484)       | 27 ( 871)       | 43 ( 1387)     | 106 ( 3419)       |
| COA POINT                       | 11 ( 355)         | 64 ( 2194)      | 154 ( 4968)     | 33 ( 1065)     | 96 ( 3097)        |
| PULP                            | 374 ( 12065)      | 43 ( 2678)      | 181 ( 5839)     | 76 ( 2452)     | 629 ( 20292)      |
| TOTAL                           | 491 ( 15836)      | 68 ( 2156)      | 362 ( 11278)    | 152 ( 4914)    | 831 ( 26808)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                 |                |                   |
| LAKE MURON                      | 50 ( 1613)        | 5 ( 161)        | 7 ( 226)        | 4 ( 129)       | 50 ( 1613)        |
| COA POINT                       | 3 ( 97)           | 34 ( 1097)      | 75 ( 2419)      | 17 ( 548)      | 19 ( 613)         |
| PULP                            | 151 ( 4971)       | 39 ( 1258)      | 62 ( 2645)      | 21 ( 677)      | 277 ( 8935)       |
| TOTAL                           | 204 ( 6581)       | 78 ( 2474)      | 144 ( 4690)     | 42 ( 1354)     | 346 ( 11161)      |
| <b>NITRATE-NITRICE NITROGEN</b> |                   |                 |                 |                |                   |
| LAKE MURON                      | 3325 ( 107258)    | 453 ( 14615)    | 369 ( 11903)    | 364 ( 11742)   | 3325 ( 107258)    |
| COA POINT                       | 104 ( 3516)       | 206 ( 6645)     | 249 ( 8032)     | 123 ( 3968)    | 1295 ( 41778)     |
| PULP                            | 212 ( 6839)       | 659 ( 21258)    | 618 ( 19935)    | 487 ( 15710)   | 790 ( 25488)      |
| TOTAL                           | 3641 ( 117613)    | 1318 ( 42918)   | 1236 ( 40070)   | 974 ( 31420)   | 5410 ( 174516)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 141 ( 4548)       | 1 ( 32)         | 20 ( 645)       | 23 ( 742)      | 141 ( 4548)       |
| COA POINT                       | 16 ( 516)         | 159 ( 5129)     | 476 ( 15355)    | 104 ( 3355)    | 60 ( 1935)        |
| PULP                            | 1204 ( 38339)     | 100 ( 5161)     | 496 ( 16000)    | 127 ( 4097)    | 1943 ( 62678)     |
| TOTAL                           | 1361 ( 43403)     | 160 ( 5193)     | 612 ( 20015)    | 154 ( 4994)    | 2144 ( 69161)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 3324 ( 107226)    | 148 ( 4774)     | 273 ( 8806)     | 323 ( 10419)   | 3324 ( 107226)    |
| COA POINT                       | 75 ( 2419)        | 77 ( 2484)      | 146 ( 4710)     | 84 ( 2719)     | 819 ( 26418)      |
| PULP                            | 443 ( 14290)      | 225 ( 7258)     | 419 ( 13516)    | 367 ( 11836)   | 710 ( 22903)      |
| TOTAL                           | 3842 ( 123735)    | 450 ( 14526)    | 707 ( 22632)    | 774 ( 25070)   | 4853 ( 156547)    |
| <b>CHLORIDE</b>                 |                   |                 |                 |                |                   |
| LAKE MURON                      | 4444 ( 2465935)   | 5850 ( 188710)  | 13313 ( 429452) | 5140 ( 165806) | 4444 ( 2465935)   |
| COA POINT                       | 964 ( 31161)      | 5460 ( 182581)  | 10062 ( 32581)  | 2486 ( 96323)  | 25269 ( 815129)   |
| PULP                            | 163052 ( 5281294) | 11510 ( 371291) | 23375 ( 754033) | 8126 ( 262129) | 182640 ( 5891614) |
| TOTAL                           | 253742 ( 8155225) | 17520 ( 56777)  | 34750 ( 112034) | 13552 ( 43710) | 296753 ( 9572678) |
| <b>SILICA</b>                   |                   |                 |                 |                |                   |
| LAKE MURON                      | 4059 ( 259968)    | 713 ( 23000)    | 1648 ( 54452)   | 1262 ( 40710)  | 4059 ( 259968)    |
| COA POINT                       | 448 ( 14452)      | 176 ( 5677)     | 314 ( 10129)    | 93 ( 3000)     | 4111 ( 132614)    |
| PULP                            | 657 ( 21524)      | 449 ( 14611)    | 2002 ( 64581)   | 1355 ( 43710)  | 1220 ( 39354)     |
| TOTAL                           | 9144 ( 295544)    | 1338 ( 43288)   | 4064 ( 130272)  | 1448 ( 46720)  | 13390 ( 431936)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DE/ST. CLR BASIN  | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|-----------------|-----------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                 |                    |
| LAKE MURRAY                     | 101 ( 3367)       | 107 ( 3567)     | 95 ( 3167)      | 324 ( 10800)    | 101 ( 3367)        |
| DOWN POINT                      | 101 ( 3367)       | 68 ( 2267)      | 143 ( 4767)     | 32 ( 1067)      | 627 ( 20901)       |
| POINT                           | 365 ( 12167)      | 175 ( 5834)     | 238 ( 7934)     | 356 ( 11867)    | 608 ( 20268)       |
| TOTAL                           | 567 ( 18901)      |                 |                 |                 | 1336 ( 44536)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                 |                 |                    |
| LAKE MURRAY                     | 47 ( 1567)        | 29 ( 967)       | 23 ( 767)       | 19 ( 633)       | 47 ( 1567)         |
| DOWN POINT                      | 22 ( 733)         | 35 ( 1167)      | 71 ( 2367)      | 16 ( 533)       | 93 ( 3100)         |
| POINT                           | 144 ( 4933)       | 64 ( 2134)      | 94 ( 3134)      | 35 ( 1166)      | 270 ( 9000)        |
| TOTAL                           | 217 ( 7233)       |                 |                 |                 | 410 ( 13667)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                 |                    |
| LAKE MURRAY                     | 3167 ( 105567)    | 2276 ( 75867)   | 1049 ( 34967)   | 1090 ( 36333)   | 3167 ( 105567)     |
| DOWN POINT                      | 819 ( 27300)      | 199 ( 6633)     | 241 ( 8033)     | 119 ( 3967)     | 5234 ( 174467)     |
| POINT                           | 223 ( 7433)       | 2475 ( 82500)   | 1290 ( 43000)   | 1209 ( 40300)   | 762 ( 26066)       |
| TOTAL                           | 4209 ( 140300)    |                 |                 |                 | 9163 ( 306100)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                 |                    |
| LAKE MURRAY                     | 134 ( 4467)       | 7 ( 233)        | 38 ( 1267)      | 36 ( 1200)      | 134 ( 4467)        |
| DOWN POINT                      | 28 ( 933)         | 144 ( 4867)     | 464 ( 15467)    | 123 ( 4100)     | 109 ( 3633)        |
| POINT                           | 1195 ( 39833)     | 195 ( 6500)     | 502 ( 16734)    | 159 ( 5300)     | 1970 ( 65667)      |
| TOTAL                           | 1357 ( 45233)     |                 |                 |                 | 2213 ( 73767)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                 |                    |
| LAKE MURRAY                     | 3166 ( 105533)    | 512 ( 17067)    | 404 ( 13467)    | 660 ( 22000)    | 3166 ( 105533)     |
| DOWN POINT                      | 281 ( 9367)       | 76 ( 2533)      | 141 ( 4700)     | 42 ( 1400)      | 1857 ( 61901)      |
| POINT                           | 434 ( 14467)      | 588 ( 19600)    | 545 ( 18167)    | 702 ( 23400)    | 693 ( 23100)       |
| TOTAL                           | 3881 ( 129567)    |                 |                 |                 | 5716 ( 190534)     |
| <b>CHLORIDE</b>                 |                   |                 |                 |                 |                    |
| LAKE MURRAY                     | 84628 ( 2820933)  | 15797 ( 526567) | 15510 ( 517000) | 11675 ( 389167) | 84628 ( 2820933)   |
| DOWN POINT                      | 10815 ( 360500)   | 5077 ( 182567)  | 4737 ( 324567)  | 2889 ( 96300)   | 53797 ( 1793234)   |
| POINT                           | 163260 ( 5442000) | 21274 ( 704134) | 25247 ( 841567) | 14564 ( 485467) | 181363 ( 6045434)  |
| TOTAL                           | 258703 ( 8623433) |                 |                 |                 | 319706 ( 10659601) |
| <b>SILICA</b>                   |                   |                 |                 |                 |                    |
| LAKE MURRAY                     | 7677 ( 255900)    | 2324 ( 77467)   | 2473 ( 82433)   | 2464 ( 98800)   | 7677 ( 255900)     |
| DOWN POINT                      | 1640 ( 54667)     | 170 ( 5667)     | 304 ( 10133)    | 91 ( 3033)      | 9401 ( 313367)     |
| POINT                           | 616 ( 20533)      | 2494 ( 83134)   | 2777 ( 92566)   | 3055 ( 101633)  | 1181 ( 39366)      |
| TOTAL                           | 9933 ( 331100)    |                 |                 |                 | 18259 ( 608633)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|-----------------|-----------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                 |                    |
| LAKE MURPHY                     | 104 ( 3355)       |                 |                 |                 | 104 ( 3355)        |
| FOU. POINT                      | 138 ( 4452)       | 13 ( 419)       | 43 ( 1387)      | 162 ( 5226)     | 356 ( 11484)       |
| POINT                           | 379 ( 12220)      | 71 ( 2290)      | 139 ( 4484)     | 33 ( 1065)      | 622 ( 20065)       |
| TOTAL                           | 621 ( 20033)      | 84 ( 2709)      | 182 ( 5871)     | 195 ( 6291)     | 1082 ( 34904)      |
| <b>UNITED PHOSPHORUS</b>        |                   |                 |                 |                 |                    |
| LAKE MURPHY                     | 49 ( 1581)        |                 |                 |                 | 49 ( 1581)         |
| FOU. POINT                      | 50 ( 904)         | 8 ( 258)        | 18 ( 581)       | 28 ( 903)       | 84 ( 2710)         |
| POINT                           | 154 ( 4988)       | 37 ( 1190)      | 71 ( 2290)      | 17 ( 548)       | 279 ( 9000)        |
| TOTAL                           | 233 ( 7517)       | 45 ( 1452)      | 89 ( 2871)      | 45 ( 1451)      | 412 ( 13291)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                 |                    |
| LAKE MURPHY                     | 3273 ( 105581)    |                 |                 |                 | 3273 ( 105581)     |
| FOU. POINT                      | 1272 ( 41032)     | 409 ( 13194)    | 341 ( 11000)    | 1201 ( 38742)   | 3223 ( 103968)     |
| POINT                           | 231 ( 7452)       | 206 ( 6645)     | 243 ( 7839)     | 123 ( 3968)     | 603 ( 25904)       |
| TOTAL                           | 4776 ( 154065)    | 615 ( 19839)    | 584 ( 18839)    | 1324 ( 42710)   | 7299 ( 235453)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                 |                    |
| LAKE MURPHY                     | 139 ( 4484)       |                 |                 |                 | 139 ( 4484)        |
| FOU. POINT                      | 34 ( 1097)        | 2 ( 65)         | 21 ( 677)       | 39 ( 1258)      | 96 ( 3097)         |
| POINT                           | 1240 ( 40129)     | 172 ( 5548)     | 474 ( 15290)    | 143 ( 4613)     | 2033 ( 65580)      |
| TOTAL                           | 1417 ( 45710)     | 174 ( 5613)     | 495 ( 15967)    | 182 ( 5871)     | 2268 ( 73161)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                 |                    |
| LAKE MURPHY                     | 3272 ( 105548)    |                 |                 |                 | 3272 ( 105548)     |
| FOU. POINT                      | 513 ( 16548)      | 114 ( 3677)     | 191 ( 6161)     | 437 ( 14097)    | 1255 ( 40483)      |
| POINT                           | 450 ( 14516)      | 79 ( 2548)      | 145 ( 4677)     | 44 ( 1419)      | 718 ( 23160)       |
| TOTAL                           | 4235 ( 136612)    | 193 ( 6225)     | 336 ( 10838)    | 481 ( 15516)    | 5245 ( 169191)     |
| <b>CHLORIDE</b>                 |                   |                 |                 |                 |                    |
| LAKE MURPHY                     | 87449 ( 2820935)  |                 |                 |                 | 87449 ( 2820935)   |
| FOU. POINT                      | 17781 ( 573581)   | 8540 ( 275484)  | 10066 ( 328710) | 15917 ( 513452) | 52304 ( 1687227)   |
| POINT                           | 165076 ( 5325032) | 5660 ( 182581)  | 10047 ( 324097) | 2986 ( 96323)   | 183769 ( 5928033)  |
| TOTAL                           | 270306 ( 8719548) | 14200 ( 458065) | 20113 ( 648607) | 18903 ( 609775) | 323522 ( 10436195) |
| <b>SILICA</b>                   |                   |                 |                 |                 |                    |
| LAKE MURPHY                     | 7933 ( 255903)    |                 |                 |                 | 7933 ( 255903)     |
| FOU. POINT                      | 2504 ( 80774)     | 740 ( 23871)    | 1266 ( 40839)   | 2676 ( 86323)   | 7146 ( 231807)     |
| POINT                           | 637 ( 20548)      | 176 ( 5677)     | 314 ( 10124)    | 93 ( 3000)      | 1220 ( 39354)      |
| TOTAL                           | 11074 ( 357225)   | 916 ( 29548)    | 1580 ( 50968)   | 2769 ( 89323)   | 16334 ( 527068)    |

POST-LOADINGS IN METRIC TONS PER MILE FOR NOVEMBER, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                 |                    |
| LAKE MURDO                      | 95 ( 3167)        |                  |                 | 95 ( 3167)         |
| LOW POINT                       | 141 ( 4700)       | 89 ( 2967)       | 126 ( 4200)     | 372 ( 12400)       |
| FOUNT                           | 368 ( 12267)      | 151 ( 5033)      | 32 ( 1067)      | 622 ( 20734)       |
| TOTAL                           | 604 ( 20134)      | 240 ( 8000)      | 158 ( 5267)     | 1089 ( 36301)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                  |                 |                    |
| LAKE MURDO                      | 45 ( 1500)        |                  |                 | 45 ( 1500)         |
| LOW POINT                       | 36 ( 1200)        | 22 ( 733)        | 20 ( 667)       | 88 ( 2933)         |
| FOUNT                           | 144 ( 4667)       | 75 ( 2500)       | 16 ( 533)       | 277 ( 9233)        |
| TOTAL                           | 230 ( 7667)       | 97 ( 3233)       | 36 ( 1200)      | 410 ( 13666)       |
| <b>NITRATE-NITRILE NITROGEN</b> |                   |                  |                 |                    |
| LAKE MURDO                      | 2472 ( 99067)     |                  |                 | 2472 ( 99067)      |
| LOW POINT                       | 2631 ( 87700)     | 674 ( 22467)     | 993 ( 33100)    | 4171 ( 139034)     |
| FOUNT                           | 224 ( 7467)       | 241 ( 8033)      | 119 ( 3967)     | 783 ( 26100)       |
| TOTAL                           | 5227 ( 174234)    | 915 ( 30500)     | 1112 ( 37067)   | 7426 ( 264201)     |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                 |                    |
| LAKE MURDO                      | 126 ( 4200)       |                  |                 | 126 ( 4200)        |
| LOW POINT                       | 45 ( 1500)        | 47 ( 1567)       | 25 ( 833)       | 121 ( 4033)        |
| FOUNT                           | 1205 ( 40167)     | 464 ( 15467)     | 135 ( 4500)     | 1985 ( 66167)      |
| TOTAL                           | 1376 ( 45467)     | 511 ( 17034)     | 160 ( 5333)     | 2232 ( 74400)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                 |                    |
| LAKE MURDO                      | 2971 ( 99033)     |                  |                 | 2971 ( 99033)      |
| LOW POINT                       | 434 ( 14467)      | 503 ( 16767)     | 442 ( 14733)    | 1517 ( 50567)      |
| FOUNT                           | 435 ( 14500)      | 141 ( 4700)      | 42 ( 1400)      | 696 ( 23200)       |
| TOTAL                           | 3840 ( 128000)    | 644 ( 21467)     | 484 ( 16133)    | 5184 ( 172800)     |
| <b>CHLORIDE</b>                 |                   |                  |                 |                    |
| LAKE MURDO                      | 79406 ( 2646667)  |                  |                 | 79406 ( 2646667)   |
| LOW POINT                       | 21650 ( 721667)   | 35352 ( 1178400) | 12160 ( 405333) | 11346 ( 3711533)   |
| FOUNT                           | 163260 ( 5442000) | 9737 ( 324567)   | 2889 ( 96300)   | 161363 ( 6045434)  |
| TOTAL                           | 264316 ( 8610534) | 45089 ( 1502967) | 15049 ( 501633) | 342115 ( 11603634) |
| <b>SILICA</b>                   |                   |                  |                 |                    |
| LAKE MURDO                      | 7203 ( 240100)    |                  |                 | 7203 ( 240100)     |
| LOW POINT                       | 2754 ( 91800)     | 2997 ( 99900)    | 2392 ( 79733)   | 9092 ( 303066)     |
| FOUNT                           | 816 ( 20533)      | 304 ( 10133)     | 91 ( 3033)      | 1181 ( 39366)      |
| TOTAL                           | 10573 ( 352433)   | 3301 ( 110033)   | 2483 ( 82766)   | 17476 ( 582532)    |

LAKE E. LOADINGS IN METRIC TONS PER MONTH FOR DECEMBER, 1977  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR PPT    | WESTERN BASIN    | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 101 ( 3258)        | 2613 ( 84290)    | 1149 ( 37710)     | 285 ( 9194)     | 101 ( 3258)        |
| FOA PCLT                        | 500 ( 18665)       | 76 ( 2452)       | 159 ( 5129)       | 33 ( 1065)      | 4627 ( 149259)     |
| POINT                           | 380 ( 12256)       | 2689 ( 86742)    | 1328 ( 42839)     | 318 ( 10259)    | 648 ( 20904)       |
| TOTAL                           | 1001 ( 33581)      |                  |                   |                 | 5376 ( 173421)     |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 47 ( 1516)         | 217 ( 7000)      | 206 ( 6645)       | 30 ( 968)       | 47 ( 1516)         |
| FOA PCLT                        | 145 ( 4842)        | 38 ( 1226)       | 79 ( 2547)        | 17 ( 548)       | 574 ( 18645)       |
| POINT                           | 157 ( 5065)        | 255 ( 8226)      | 285 ( 9193)       | 47 ( 1516)      | 291 ( 9387)        |
| TOTAL                           | 324 ( 10613)       |                  |                   |                 | 916 ( 29548)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 3168 ( 102194)     | 16074 ( 518516)  | 6875 ( 221774)    | 1582 ( 51032)   | 3168 ( 102194)     |
| FOA PCLT                        | 5634 ( 181742)     | 206 ( 6645)      | 249 ( 8032)       | 123 ( 3968)     | 30165 ( 973064)    |
| POINT                           | 231 ( 7452)        | 16280 ( 525161)  | 7124 ( 229806)    | 1705 ( 55000)   | 809 ( 26097)       |
| TOTAL                           | 9033 ( 291344)     |                  |                   |                 | 34142 ( 1101355)   |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 135 ( 4355)        | 374 ( 12065)     | 441 ( 14226)      | 61 ( 1968)      | 135 ( 4355)        |
| FOA PCLT                        | 289 ( 9373)        | 293 ( 9452)      | 499 ( 16097)      | 144 ( 4645)     | 1165 ( 37582)      |
| POINT                           | 1253 ( 40419)      | 667 ( 21517)     | 940 ( 30323)      | 205 ( 6613)     | 2189 ( 70613)      |
| TOTAL                           | 1677 ( 54097)      |                  |                   |                 | 3489 ( 1125501)    |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 3168 ( 102194)     | 7996 ( 257935)   | 3165 ( 102097)    | 706 ( 22774)    | 3168 ( 102194)     |
| FOA PCLT                        | 2685 ( 86613)      | 43 ( 2677)       | 146 ( 4710)       | 44 ( 1419)      | 14552 ( 469419)    |
| POINT                           | 450 ( 14516)       | 8079 ( 260612)   | 3311 ( 106607)    | 750 ( 24193)    | 723 ( 23322)       |
| TOTAL                           | 6303 ( 203323)     |                  |                   |                 | 18483 ( 594935)    |
| <b>CHLORIDE</b>                 |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 8468 ( 2730903)    | 74906 ( 2416323) | 168380 ( 5431613) | 18943 ( 611065) | 8468 ( 2730903)    |
| FOA PCLT                        | 59073 ( 1905581)   | 5660 ( 182581)   | 10062 ( 324581)   | 2986 ( 96323)   | 321302 ( 10364582) |
| POINT                           | 168702 ( 5442000)  | 80566 ( 2598904) | 176442 ( 5756194) | 21929 ( 707386) | 187410 ( 6045485)  |
| TOTAL                           | 312433 ( 10078484) |                  |                   |                 | 593370 ( 19140970) |
| <b>SILICA</b>                   |                    |                  |                   |                 |                    |
| LAKE MURDOCK                    | 7680 ( 247742)     | 13361 ( 431645)  | 14709 ( 474484)   | 3893 ( 125581)  | 7680 ( 247742)     |
| FOA PCLT                        | 7127 ( 229903)     | 174 ( 5677)      | 314 ( 10129)      | 93 ( 3000)      | 39110 ( 1261613)   |
| POINT                           | 637 ( 20544)       | 15557 ( 437322)  | 15023 ( 484613)   | 3986 ( 128581)  | 1220 ( 39354)      |
| TOTAL                           | 15444 ( 498193)    |                  |                   |                 | 48010 ( 1548709)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JANUARY, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURUM                      | 130 ( 4194)       | 20 ( 645)       | 263 ( 8484)      | 34 ( 1097)     | 130 ( 4194)        |
| MOM POINT                       | 36 ( 1161)        | 70 ( 2258)      | 241 ( 7774)      | 29 ( 935)      | 353 ( 11367)       |
| TOTAL                           | 272 ( 8774)       | 90 ( 2903)      | 504 ( 16258)     | 63 ( 2032)     | 612 ( 19741)       |
|                                 | 438 ( 14129)      |                 |                  |                | 1095 ( 35322)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                    |
| LAKE MURUM                      | 53 ( 1710)        | 10 ( 323)       | 45 ( 1452)       | 0 ( 250)       | 53 ( 1710)         |
| MOM POINT                       | 10 ( 323)         | 35 ( 1129)      | 121 ( 3903)      | 15 ( 484)      | 73 ( 2356)         |
| TOTAL                           | 128 ( 4129)       | 45 ( 1452)      | 166 ( 5355)      | 23 ( 742)      | 299 ( 9645)        |
|                                 | 191 ( 6162)       |                 |                  |                | 425 ( 13711)       |
| <b>NITRATE-NITRICE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURUM                      | 3510 ( 113226)    | 701 ( 22613)    | 1918 ( 61871)    | 619 ( 19968)   | 3510 ( 113226)     |
| MOM POINT                       | 541 ( 17774)      | 190 ( 6129)     | 271 ( 8742)      | 114 ( 3677)    | 3789 ( 122226)     |
| TOTAL                           | 937 ( 30226)      | 891 ( 28742)    | 2189 ( 70613)    | 733 ( 23645)   | 1512 ( 48774)      |
|                                 | 8996 ( 161226)    |                 |                  |                | 8811 ( 264226)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURUM                      | 143 ( 4613)       | 3 ( 97)         | 52 ( 1677)       | 21 ( 677)      | 143 ( 4613)        |
| MOM POINT                       | 4 ( 129)          | 226 ( 7290)     | 486 ( 15677)     | 110 ( 3548)    | 80 ( 2580)         |
| TOTAL                           | 1171 ( 37774)     | 229 ( 7387)     | 538 ( 17354)     | 131 ( 4225)    | 1993 ( 64289)      |
|                                 | 1316 ( 42516)     |                 |                  |                | 2216 ( 71482)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURUM                      | 3513 ( 113323)    | 309 ( 9968)     | 1257 ( 40548)    | 213 ( 6871)    | 3513 ( 113323)     |
| MOM POINT                       | 100 ( 3226)       | 75 ( 2419)      | 155 ( 5000)      | 40 ( 1290)     | 1879 ( 60613)      |
| TOTAL                           | 654 ( 21097)      | 384 ( 12387)    | 1412 ( 45548)    | 253 ( 8161)    | 924 ( 29806)       |
|                                 | 4267 ( 137646)    |                 |                  |                | 6316 ( 203742)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURUM                      | 81027 ( 2613774)  | 13556 ( 437290) | 30204 ( 974323)  | 7014 ( 226258) | 81027 ( 2613774)   |
| MOM POINT                       | 9206 ( 296968)    | 5622 ( 181355)  | 10648 ( 343484)  | 2762 ( 89097)  | 59980 ( 1934839)   |
| TOTAL                           | 162257 ( 5294613) | 19178 ( 618645) | 40852 ( 1317807) | 9776 ( 315355) | 183289 ( 5912549)  |
|                                 | 254490 ( 8209355) |                 |                  |                | 324296 ( 10461162) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURUM                      | 6713 ( 216588)    | 1327 ( 42806)   | 4621 ( 149065)   | 1259 ( 40613)  | 6713 ( 216588)     |
| MOM POINT                       | 739 ( 23839)      | 174 ( 5613)     | 533 ( 16742)     | 86 ( 2774)     | 7946 ( 256323)     |
| TOTAL                           | 1322 ( 42645)     | 1501 ( 48419)   | 4954 ( 159807)   | 1345 ( 43387)  | 1915 ( 61774)      |
|                                 | 8774 ( 283032)    |                 |                  |                | 16574 ( 534645)    |

# WASTY LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1978 (AVE DAILY LOADS IN KG/DAY)

|                                | UP/ST. CLR BASIN  | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|--------------------------------|-------------------|-----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                 |                 |                |                   |
| LAKE MURDOH                    | 109 ( 3893)       |                 |                 |                | 109 ( 3893)       |
| MON POINT                      | 52 ( 1743)        | 1 ( 36)         | 56 ( 2000)      | 13 ( 464)      | 102 ( 3643)       |
| POINT                          | 217 ( 8021)       | 55 ( 1964)      | 214 ( 7633)     | 27 ( 964)      | 543 ( 19392)      |
| TOTAL                          | 344 ( 13857)      | 56 ( 2000)      | 270 ( 9643)     | 40 ( 1428)     | 754 ( 26928)      |
| <b>ORTHOPHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURDOH                    | 44 ( 1571)        |                 |                 |                | 44 ( 1571)        |
| MON POINT                      | 8 ( 286)          | 1 ( 36)         | 15 ( 536)       | 4 ( 143)       | 28 ( 1001)        |
| POINT                          | 116 ( 4143)       | 25 ( 893)       | 105 ( 3750)     | 13 ( 464)      | 259 ( 9250)       |
| TOTAL                          | 168 ( 6006)       | 26 ( 929)       | 120 ( 4286)     | 17 ( 607)      | 331 ( 11822)      |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                 |                 |                |                   |
| LAKE MURDOH                    | 2941 ( 105036)    |                 |                 |                | 2941 ( 105036)    |
| MON POINT                      | 424 ( 15286)      | 196 ( 7000)     | 744 ( 26571)    | 351 ( 12536)   | 1719 ( 61393)     |
| POINT                          | 944 ( 30143)      | 172 ( 6143)     | 245 ( 8750)     | 103 ( 3679)    | 1364 ( 48715)     |
| TOTAL                          | 4213 ( 150465)    | 368 ( 13143)    | 989 ( 35321)    | 454 ( 16215)   | 6024 ( 215144)    |
| <b>AMMONIA NITROGEN</b>        |                   |                 |                 |                |                   |
| LAKE MURDOH                    | 120 ( 4246)       |                 |                 |                | 120 ( 4246)       |
| MON POINT                      | 2 ( 71)           | 0 ( 0)          | 10 ( 357)       | 12 ( 429)      | 24 ( 857)         |
| POINT                          | 1056 ( 37141)     | 149 ( 5321)     | 438 ( 15643)    | 91 ( 3250)     | 1734 ( 61928)     |
| TOTAL                          | 1178 ( 42071)     | 149 ( 5321)     | 448 ( 16000)    | 103 ( 3679)    | 1878 ( 67071)     |
| <b>ORGANIC NITROGEN</b>        |                   |                 |                 |                |                   |
| LAKE MURDOH                    | 2944 ( 105143)    |                 |                 |                | 2944 ( 105143)    |
| MON POINT                      | 76 ( 2714)        | 182 ( 6500)     | 371 ( 13250)    | 113 ( 4036)    | 742 ( 26500)      |
| POINT                          | 589 ( 21036)      | 68 ( 2429)      | 140 ( 5000)     | 36 ( 1286)     | 833 ( 29751)      |
| TOTAL                          | 3609 ( 128893)    | 250 ( 8929)     | 511 ( 18250)    | 149 ( 5322)    | 4519 ( 161394)    |
| <b>CHLORIDE</b>                |                   |                 |                 |                |                   |
| LAKE MURDOH                    | 67901 ( 2425036)  |                 |                 |                | 67901 ( 2425036)  |
| MON POINT                      | 7378 ( 263500)    | 7840 ( 280000)  | 11971 ( 427536) | 4786 ( 170929) | 31975 ( 1141965)  |
| POINT                          | 147134 ( 5254786) | 5078 ( 181557)  | 9618 ( 343500)  | 2495 ( 89107)  | 164325 ( 5868750) |
| TOTAL                          | 222413 ( 7943322) | 12918 ( 461357) | 21589 ( 771036) | 7281 ( 260036) | 264201 ( 9435751) |
| <b>SILICA</b>                  |                   |                 |                 |                |                   |
| LAKE MURDOH                    | 5625 ( 200893)    |                 |                 |                | 5625 ( 200893)    |
| MON POINT                      | 584 ( 20857)      | 413 ( 14750)    | 1705 ( 60893)   | 632 ( 22571)   | 3334 ( 119071)    |
| POINT                          | 1180 ( 42143)     | 158 ( 5643)     | 301 ( 10750)    | 78 ( 2786)     | 1717 ( 61322)     |
| TOTAL                          | 7389 ( 263893)    | 571 ( 20393)    | 2006 ( 71643)   | 710 ( 25357)   | 10676 ( 381286)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 123 ( 3968)        | 1280 ( 41290)    | 1547 ( 49903)    | 123 ( 3968)     | 123 ( 3968)        |
| ADN. POINT                      | 315 ( 10161)       | 74 ( 2387)       | 291 ( 7774)      | 29 ( 935)       | 3265 ( 105322)     |
| POINT                           | 273 ( 8806)        | 1354 ( 43677)    | 1748 ( 57677)    | 152 ( 4903)     | 617 ( 19902)       |
| TOTAL                           | 711 ( 22935)       |                  |                  |                 | 4005 ( 129192)     |
| <b>ORTHOPHOSPHORUS</b>          |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 50 ( 1613)         | 324 ( 10452)     | 217 ( 7000)      | 17 ( 548)       | 50 ( 1613)         |
| ADN. POINT                      | 120 ( 3871)        | 36 ( 1161)       | 121 ( 3903)      | 15 ( 484)       | 678 ( 21871)       |
| POINT                           | 129 ( 4161)        | 360 ( 11613)     | 338 ( 10903)     | 32 ( 1032)      | 301 ( 9709)        |
| TOTAL                           | 299 ( 9645)        |                  |                  |                 | 1029 ( 33193)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 3335 ( 107581)     | 11449 ( 369323)  | 7808 ( 251871)   | 1187 ( 38290)   | 3335 ( 107581)     |
| ADN. POINT                      | 4001 ( 129065)     | 190 ( 6129)      | 271 ( 8742)      | 114 ( 3677)     | 2445 ( 788549)     |
| POINT                           | 1044 ( 33677)      | 11639 ( 375452)  | 8079 ( 260615)   | 1501 ( 41967)   | 1619 ( 52225)      |
| TOTAL                           | 8380 ( 270323)     |                  |                  |                 | 29399 ( 948355)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 136 ( 4387)        | 1007 ( 32484)    | 412 ( 13290)     | 32 ( 1032)      | 136 ( 4387)        |
| ADN. POINT                      | 183 ( 5903)        | 284 ( 9161)      | 498 ( 16065)     | 113 ( 3645)     | 1634 ( 52709)      |
| POINT                           | 1259 ( 40613)      | 1291 ( 41645)    | 910 ( 29355)     | 145 ( 4677)     | 2154 ( 69484)      |
| TOTAL                           | 1578 ( 50983)      |                  |                  |                 | 3924 ( 126580)     |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 3337 ( 107645)     | 4209 ( 135774)   | 6016 ( 194065)   | 560 ( 18065)    | 3337 ( 107645)     |
| ADN. POINT                      | 1289 ( 41581)      | 84 ( 2710)       | 155 ( 5000)      | 40 ( 1290)      | 12074 ( 389485)    |
| POINT                           | 752 ( 24258)       | 4293 ( 138484)   | 6171 ( 199065)   | 600 ( 19355)    | 1031 ( 33258)      |
| TOTAL                           | 5378 ( 173484)     |                  |                  |                 | 16442 ( 530388)    |
| <b>CHLORIDE</b>                 |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 76976 ( 2483097)   | 73644 ( 2375613) | 74517 ( 2403774) | 9736 ( 314065)  | 76976 ( 2483097)   |
| ADN. POINT                      | 85099 ( 2745129)   | 5622 ( 181355)   | 10648 ( 343484)  | 2762 ( 89097)   | 242996 ( 7838581)  |
| POINT                           | 167358 ( 5398635)  | 79266 ( 2556468) | 85165 ( 2747258) | 12498 ( 403162) | 186190 ( 6012581)  |
| TOTAL                           | 329433 ( 10426871) |                  |                  |                 | 506362 ( 16334259) |
| <b>SILICA</b>                   |                    |                  |                  |                 |                    |
| LAKE MURPHY                     | 6377 ( 205710)     | 16166 ( 521484)  | 13431 ( 433258)  | 2320 ( 74839)   | 6377 ( 205710)     |
| ADN. POINT                      | 7467 ( 240871)     | 174 ( 5613)      | 333 ( 10742)     | 86 ( 2774)      | 39384 ( 1270452)   |
| POINT                           | 1509 ( 43516)      | 16340 ( 527097)  | 13764 ( 444000)  | 2406 ( 77613)   | 1942 ( 62645)      |
| TOTAL                           | 15193 ( 490007)    |                  |                  |                 | 47703 ( 1538807)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|--------------------------------|--------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>        |                    |                  |                  |                 |                    |
| LAKE MURUM                     | 126 ( 4200)        | 747 ( 24900)     | 355 ( 11433)     | 325 ( 10833)    | 126 ( 4200)        |
| WON POINT                      | 363 ( 12100)       | 73 ( 2433)       | 233 ( 7767)      | 29 ( 947)       | 1790 ( 59666)      |
| POINT                          | 265 ( 8433)        | 820 ( 27333)     | 598 ( 19600)     | 354 ( 11800)    | 600 ( 20000)       |
| TOTAL                          | 754 ( 25133)       |                  |                  |                 | 2516 ( 83866)      |
| <b>ORTHOPHOSPHORUS</b>         |                    |                  |                  |                 |                    |
| LAKE MURUM                     | 51 ( 1700)         | 200 ( 6667)      | 91 ( 3033)       | 63 ( 2100)      | 51 ( 1700)         |
| WON POINT                      | 152 ( 5067)        | 35 ( 1167)       | 117 ( 3900)      | 15 ( 500)       | 506 ( 16867)       |
| POINT                          | 125 ( 4167)        | 235 ( 7834)      | 208 ( 6933)      | 78 ( 2600)      | 292 ( 9734)        |
| TOTAL                          | 328 ( 10934)       |                  |                  |                 | 849 ( 28301)       |
| <b>NITRATE-NITRIF NITROGEN</b> |                    |                  |                  |                 |                    |
| LAKE MURUM                     | 3416 ( 113467)     | 9393 ( 313100)   | 3348 ( 111600)   | 2531 ( 84367)   | 3416 ( 113067)     |
| WON POINT                      | 5223 ( 174100)     | 184 ( 6133)      | 263 ( 8767)      | 110 ( 3667)     | 20495 ( 683167)    |
| POINT                          | 948 ( 31600)       | 9577 ( 319233)   | 3611 ( 120367)   | 2641 ( 88034)   | 1505 ( 50167)      |
| TOTAL                          | 4547 ( 319547)     |                  |                  |                 | 25416 ( 847201)    |
| <b>AMMONIA NITROGEN</b>        |                    |                  |                  |                 |                    |
| LAKE MURUM                     | 139 ( 4633)        | 693 ( 23100)     | 153 ( 5100)      | 148 ( 4933)     | 139 ( 4633)        |
| WON POINT                      | 306 ( 10200)       | 306 ( 10200)     | 477 ( 15900)     | 126 ( 4267)     | 1300 ( 43333)      |
| POINT                          | 1215 ( 40500)      | 999 ( 33300)     | 630 ( 21000)     | 276 ( 9200)     | 2126 ( 70867)      |
| TOTAL                          | 1660 ( 55333)      |                  |                  |                 | 3565 ( 118033)     |
| <b>ORGANIC NITROGEN</b>        |                    |                  |                  |                 |                    |
| LAKE MURUM                     | 3416 ( 113933)     | 2538 ( 84600)    | 1431 ( 47700)    | 1112 ( 37067)   | 3416 ( 113933)     |
| WON POINT                      | 1608 ( 53600)      | 81 ( 2700)       | 150 ( 5000)      | 39 ( 1300)      | 6689 ( 222967)     |
| POINT                          | 674 ( 22467)       | 2619 ( 87300)    | 1541 ( 52700)    | 1151 ( 38367)   | 944 ( 31467)       |
| TOTAL                          | 5700 ( 190000)     |                  |                  |                 | 11051 ( 368367)    |
| <b>CHLORIDE</b>                |                    |                  |                  |                 |                    |
| LAKE MURUM                     | 78850 ( 2628333)   | 71697 ( 2389900) | 41157 ( 1371900) | 18813 ( 627100) | 78850 ( 2628333)   |
| WON POINT                      | 65753 ( 2191767)   | 5441 ( 181367)   | 10305 ( 343500)  | 2672 ( 89067)   | 197420 ( 6580667)  |
| POINT                          | 161959 ( 5398633)  | 77138 ( 2571267) | 51462 ( 1715400) | 21485 ( 716167) | 180377 ( 6012567)  |
| TOTAL                          | 306562 ( 10218733) |                  |                  |                 | 456647 ( 15221567) |
| <b>SILICA</b>                  |                    |                  |                  |                 |                    |
| LAKE MURUM                     | 6532 ( 217733)     | 13911 ( 4637800) | 6393 ( 213100)   | 3392 ( 113067)  | 6532 ( 217733)     |
| WON POINT                      | 9580 ( 318000)     | 169 ( 5633)      | 372 ( 10733)     | 83 ( 2767)      | 33236 ( 1107867)   |
| POINT                          | 1306 ( 43533)      | 18080 ( 609333)  | 6715 ( 223033)   | 3475 ( 115034)  | 1880 ( 62666)      |
| TOTAL                          | 17378 ( 579266)    |                  |                  |                 | 41648 ( 1388266)   |

WASTEWATER LOADINGS IN METRIC TONS PER MONTH FOR MAY, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL             |
|---------------------------------|-------------------|------------------|------------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                  |                 |                   |
| LAKE MURPHY                     | 138 ( 4452)       | 99 ( 3194)       | 115 ( 3710)      | 43 ( 1387)      | 138 ( 4452)       |
| DOWN POINT                      | 63 ( 2032)        | 72 ( 2323)       | 241 ( 7774)      | 29 ( 935)       | 320 ( 10323)      |
| TOTAL                           | 273 ( 8806)       | 171 ( 5517)      | 356 ( 11484)     | 72 ( 2322)      | 615 ( 19830)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                  |                  |                 |                   |
| LAKE MURPHY                     | 56 ( 1806)        | 50 ( 1613)       | 32 ( 1032)       | 14 ( 452)       | 56 ( 1806)        |
| DOWN POINT                      | 27 ( 871)         | 36 ( 1161)       | 120 ( 3871)      | 15 ( 484)       | 123 ( 3968)       |
| TOTAL                           | 129 ( 4168)       | 86 ( 2774)       | 152 ( 4903)      | 29 ( 936)       | 300 ( 9677)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                  |                  |                 |                   |
| LAKE MURPHY                     | 3744 ( 120774)    | 1905 ( 61452)    | 1221 ( 39387)    | 885 ( 28548)    | 3744 ( 120774)    |
| DOWN POINT                      | 1110 ( 35406)     | 190 ( 6129)      | 271 ( 8782)      | 114 ( 3677)     | 5121 ( 165193)    |
| TOTAL                           | 5419 ( 187749)    | 2095 ( 67581)    | 1492 ( 48129)    | 999 ( 32225)    | 10405 ( 335644)   |
| <b>AMMONIA-NITROGEN</b>         |                   |                  |                  |                 |                   |
| LAKE MURPHY                     | 153 ( 4935)       | 148 ( 4774)      | 18 ( 581)        | 21 ( 677)       | 153 ( 4935)       |
| DOWN POINT                      | 13 ( 419)         | 286 ( 9226)      | 485 ( 15645)     | 119 ( 3839)     | 200 ( 6451)       |
| TOTAL                           | 1192 ( 38452)     | 434 ( 14000)     | 503 ( 16226)     | 140 ( 4516)     | 2082 ( 67162)     |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                  |                 |                   |
| LAKE MURPHY                     | 3747 ( 120871)    | 529 ( 17065)     | 653 ( 21065)     | 284 ( 9161)     | 3747 ( 120871)    |
| DOWN POINT                      | 240 ( 7782)       | 81 ( 2613)       | 155 ( 5000)      | 40 ( 1290)      | 1706 ( 55033)     |
| TOTAL                           | 4060 ( 150516)    | 610 ( 19678)     | 808 ( 26065)     | 324 ( 10451)    | 955 ( 30806)      |
| <b>CHLORIDE</b>                 |                   |                  |                  |                 |                   |
| LAKE MURPHY                     | 86430 ( 2788065)  | 29290 ( 948839)  | 24379 ( 786419)  | 8668 ( 279613)  | 86430 ( 2788065)  |
| DOWN POINT                      | 27455 ( 901774)   | 5622 ( 181355)   | 10648 ( 343484)  | 2762 ( 89097)   | 90292 ( 2912645)  |
| TOTAL                           | 167356 ( 538045)  | 34912 ( 1126194) | 35027 ( 1129903) | 11430 ( 368710) | 186390 ( 6012581) |
| <b>SILICA</b>                   |                   |                  |                  |                 |                   |
| LAKE MURPHY                     | 7160 ( 230968)    | 3407 ( 109903)   | 3232 ( 104250)   | 1435 ( 46290)   | 7160 ( 230968)    |
| DOWN POINT                      | 1700 ( 56129)     | 174 ( 5613)      | 333 ( 10742)     | 86 ( 2774)      | 9814 ( 316580)    |
| TOTAL                           | 10249 ( 330615)   | 3581 ( 115516)   | 3565 ( 115000)   | 1521 ( 49064)   | 18916 ( 610193)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR  
(AVE DAILY LOADS IN KG/DAY) JUNE , 1978

|                                 | DET/ST. CLP BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURPHY                     | 134 ( 4467)       | 50 ( 1667)      | 12 ( 400)       | 10 ( 333)      | 134 ( 4467)       |
| DOWN POINT                      | 26 ( 867)         | 68 ( 2267)      | 273 ( 7433)     | 29 ( 967)      | 98 ( 3267)        |
| POINT                           | 264 ( 8900)       | 114 ( 3934)     | 235 ( 7833)     | 39 ( 1300)     | 584 ( 19467)      |
| TOTAL                           | 424 ( 14134)      |                 |                 |                | 816 ( 27201)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                 |                |                   |
| LAKE MURPHY                     | 55 ( 1833)        | 15 ( 500)       | 5 ( 167)        | 1 ( 33)        | 55 ( 1833)        |
| DOWN POINT                      | 8 ( 267)          | 34 ( 1133)      | 110 ( 3667)     | 14 ( 467)      | 29 ( 967)         |
| POINT                           | 124 ( 4133)       | 49 ( 1633)      | 115 ( 3834)     | 15 ( 500)      | 242 ( 9400)       |
| TOTAL                           | 187 ( 6233)       |                 |                 |                | 366 ( 12200)      |
| <b>NITRATE-NITRICE NITROGEN</b> |                   |                 |                 |                |                   |
| LAKE MURPHY                     | 3623 ( 120767)    | 1102 ( 38067)   | 393 ( 13100)    | 195 ( 6500)    | 3623 ( 120767)    |
| DOWN POINT                      | 168 ( 5600)       | 144 ( 4133)     | 243 ( 7767)     | 110 ( 3667)    | 1898 ( 63267)     |
| POINT                           | 911 ( 30367)      | 1326 ( 44200)   | 656 ( 21867)    | 305 ( 10167)   | 1468 ( 48934)     |
| TOTAL                           | 4702 ( 156734)    |                 |                 |                | 6989 ( 232968)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURPHY                     | 148 ( 4933)       | 2 ( 67)         | 5 ( 167)        | 7 ( 233)       | 148 ( 4933)       |
| DOWN POINT                      | 2 ( 67)           | 213 ( 7100)     | 463 ( 15433)    | 91 ( 3033)     | 16 ( 534)         |
| POINT                           | 1127 ( 37567)     | 215 ( 7167)     | 468 ( 15600)    | 98 ( 3266)     | 1894 ( 63133)     |
| TOTAL                           | 1277 ( 42567)     |                 |                 |                | 2058 ( 68600)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURPHY                     | 3626 ( 120767)    | 367 ( 12233)    | 175 ( 5833)     | 86 ( 2867)     | 3626 ( 120767)    |
| DOWN POINT                      | 44 ( 1467)        | 72 ( 2400)      | 150 ( 5000)     | 39 ( 1300)     | 672 ( 22400)      |
| POINT                           | 639 ( 21300)      | 439 ( 14633)    | 375 ( 12833)    | 125 ( 4167)    | 900 ( 30000)      |
| TOTAL                           | 4309 ( 143634)    |                 |                 |                | 5198 ( 173267)    |
| <b>CHLORIDE</b>                 |                   |                 |                 |                |                   |
| LAKE MURPHY                     | 83642 ( 278867)   | 12978 ( 432600) | 7541 ( 252033)  | 3525 ( 117500) | 83642 ( 278867)   |
| DOWN POINT                      | 7798 ( 261267)    | 5441 ( 181367)  | 10305 ( 343500) | 2672 ( 89067)  | 32862 ( 1095400)  |
| POINT                           | 161647 ( 538233)  | 18419 ( 613967) | 17866 ( 595533) | 6197 ( 206367) | 180065 ( 6002167) |
| TOTAL                           | 254087 ( 8409567) |                 |                 |                | 296549 ( 9885834) |
| <b>SILICA</b>                   |                   |                 |                 |                |                   |
| LAKE MURPHY                     | 6929 ( 230967)    | 1609 ( 53633)   | 919 ( 30633)    | 386 ( 12867)   | 6929 ( 230967)    |
| DOWN POINT                      | 380 ( 12933)      | 169 ( 5633)     | 322 ( 10733)    | 43 ( 1467)     | 3302 ( 110066)    |
| POINT                           | 1306 ( 43533)     | 1778 ( 59266)   | 1241 ( 41366)   | 469 ( 15834)   | 1880 ( 62666)     |
| TOTAL                           | 8623 ( 287433)    |                 |                 |                | 12111 ( 403699)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JULY , 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DE/ST. CLR BASIN  | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 143 ( 4613)       | 54 ( 1742)      | 4 ( 129)        | 13 ( 419)      | 143 ( 4613)       |
| WDA POINT                       | 22 ( 710)         | 69 ( 2226)      | 224 ( 7226)     | 29 ( 935)      | 93 ( 3000)        |
| POINT                           | 266 ( 8581)       | 123 ( 3968)     | 228 ( 7355)     | 42 ( 1354)     | 588 ( 18968)      |
| TOTAL                           | 431 ( 13904)      |                 |                 |                | 824 ( 26581)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 54 ( 1871)        | 25 ( 806)       | 1 ( 32)         | 0 ( 0)         | 58 ( 1871)        |
| WDA POINT                       | 5 ( 161)          | 34 ( 1097)      | 111 ( 3581)     | 15 ( 484)      | 31 ( 999)         |
| POINT                           | 126 ( 4065)       | 59 ( 1903)      | 112 ( 3613)     | 15 ( 484)      | 286 ( 9227)       |
| TOTAL                           | 189 ( 6097)       |                 |                 |                | 375 ( 12097)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                |                   |
| LAKE MURON                      | 1861 ( 124548)    | 1048 ( 33806)   | 150 ( 4839)     | 76 ( 2452)     | 3861 ( 124548)    |
| WDA POINT                       | 10 ( 323)         | 190 ( 6129)     | 271 ( 8742)     | 114 ( 3677)    | 1284 ( 41420)     |
| POINT                           | 484 ( 28516)      | 1218 ( 39835)   | 421 ( 13581)    | 190 ( 6129)    | 1459 ( 47064)     |
| TOTAL                           | 4755 ( 153387)    |                 |                 |                | 6604 ( 213032)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 157 ( 5065)       | 60 ( 1935)      | 3 ( 97)         | 5 ( 161)       | 157 ( 5065)       |
| WDA POINT                       | 1 ( 32)           | 235 ( 7581)     | 475 ( 15323)    | 92 ( 2988)     | 69 ( 2225)        |
| POINT                           | 1150 ( 37355)     | 295 ( 9516)     | 478 ( 15420)    | 97 ( 3129)     | 1960 ( 63227)     |
| TOTAL                           | 1316 ( 42452)     |                 |                 |                | 2186 ( 70517)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 3454 ( 124645)    | 367 ( 11839)    | 109 ( 3516)     | 81 ( 2613)     | 3864 ( 124645)    |
| WDA POINT                       | 8 ( 256)          | 72 ( 2323)      | 153 ( 4935)     | 40 ( 1290)     | 565 ( 18226)      |
| POINT                           | 644 ( 20774)      | 434 ( 14162)    | 262 ( 8451)     | 121 ( 3903)    | 909 ( 29322)      |
| TOTAL                           | 4516 ( 145677)    |                 |                 |                | 5338 ( 172193)    |
| <b>CHLORIDE</b>                 |                   |                 |                 |                |                   |
| LAKE MURON                      | 89130 ( 2875161)  | 13230 ( 426774) | 5343 ( 172355)  | 2368 ( 76387)  | 89130 ( 2875161)  |
| WDA POINT                       | 1070 ( 34516)     | 5622 ( 181554)  | 10648 ( 343484) | 2762 ( 89097)  | 22011 ( 710032)   |
| POINT                           | 161974 ( 5225774) | 18652 ( 608124) | 15991 ( 515639) | 5110 ( 165484) | 181031 ( 5839710) |
| TOTAL                           | 252194 ( 8135451) |                 |                 |                | 292172 ( 9424901) |
| <b>SILICA</b>                   |                   |                 |                 |                |                   |
| LAKE MURON                      | 7344 ( 236194)    | 1937 ( 62484)   | 593 ( 19124)    | 201 ( 6484)    | 7384 ( 238194)    |
| WDA POINT                       | 100 ( 3226)       | 174 ( 5615)     | 333 ( 10742)    | 86 ( 2774)     | 2831 ( 91323)     |
| POINT                           | 1272 ( 41032)     | 2111 ( 68097)   | 426 ( 29471)    | 287 ( 9256)    | 1865 ( 60161)     |
| TOTAL                           | 8756 ( 282452)    |                 |                 |                | 12080 ( 389678)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                 | OUT/ST. CLP BASIN | WESTERN BASIN  | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                |                 |                |                   |
| LAKF MURJIN                     | 144 ( 4645)       |                |                 |                | 144 ( 4645)       |
| NOV. POINT                      | 22 ( 710)         | 1 ( 32)        | 3 ( 97)         | 13 ( 419)      | 39 ( 1258)        |
| POINT                           | 265 ( 8522)       | 51 ( 1645)     | 217 ( 7000)     | 29 ( 935)      | 562 ( 18128)      |
| TOTAL                           | 431 ( 13903)      | 52 ( 1677)     | 220 ( 7097)     | 42 ( 1354)     | 745 ( 24031)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                |                 |                |                   |
| LAKF MURJIN                     | 59 ( 1903)        |                |                 |                | 59 ( 1903)        |
| NOV. POINT                      | 5 ( 161)          | 0 ( 0)         | 1 ( 32)         | 0 ( 0)         | 6 ( 193)          |
| POINT                           | 125 ( 4032)       | 24 ( 774)      | 107 ( 3452)     | 14 ( 452)      | 270 ( 8710)       |
| TOTAL                           | 189 ( 6096)       | 24 ( 774)      | 108 ( 3484)     | 14 ( 452)      | 335 ( 10806)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                |                 |                |                   |
| LAKF MURJIN                     | 3900 ( 125806)    |                |                 |                | 3900 ( 125806)    |
| NOV. POINT                      | 5 ( 161)          | 25 ( 806)      | 115 ( 3710)     | 87 ( 2806)     | 232 ( 7483)       |
| POINT                           | 875 ( 28226)      | 179 ( 5774)    | 262 ( 8452)     | 114 ( 3677)    | 1430 ( 46129)     |
| TOTAL                           | 8780 ( 151193)    | 204 ( 6580)    | 377 ( 12162)    | 201 ( 6483)    | 5562 ( 179418)    |
| <b>AMMONIA NITROGEN</b>         |                   |                |                 |                |                   |
| LAKF MURJIN                     | 159 ( 5129)       |                |                 |                | 159 ( 5129)       |
| NOV. POINT                      | 0 ( 0)            | 1 ( 32)        | 3 ( 97)         | 4 ( 129)       | 8 ( 258)          |
| POINT                           | 1156 ( 37290)     | 138 ( 4452)    | 469 ( 15129)    | 99 ( 3194)     | 1862 ( 60065)     |
| TOTAL                           | 1315 ( 42419)     | 139 ( 4484)    | 472 ( 15226)    | 103 ( 3323)    | 2029 ( 65452)     |
| <b>ORGANIC NITROGEN</b>         |                   |                |                 |                |                   |
| LAKF MURJIN                     | 3903 ( 125903)    |                |                 |                | 3903 ( 125903)    |
| NOV. POINT                      | 6 ( 194)          | 78 ( 2516)     | 68 ( 2194)      | 70 ( 2258)     | 222 ( 7162)       |
| POINT                           | 639 ( 20613)      | 71 ( 2290)     | 153 ( 4935)     | 40 ( 1290)     | 903 ( 29128)      |
| TOTAL                           | 4548 ( 146710)    | 149 ( 4806)    | 221 ( 7129)     | 110 ( 3548)    | 5028 ( 162193)    |
| <b>CHLORIDE</b>                 |                   |                |                 |                |                   |
| LAKF MURJIN                     | 90031 ( 2904226)  |                |                 |                | 90031 ( 2904226)  |
| NOV. POINT                      | 517 ( 16677)      | 2273 ( 73323)  | 3542 ( 115548)  | 2210 ( 71290)  | 8582 ( 276838)    |
| POINT                           | 161554 ( 5211419) | 5622 ( 181355) | 10577 ( 341194) | 2762 ( 89097)  | 180515 ( 5823065) |
| TOTAL                           | 252102 ( 8132322) | 7895 ( 254678) | 14159 ( 456782) | 4972 ( 160387) | 279128 ( 9004128) |
| <b>SILICA</b>                   |                   |                |                 |                |                   |
| LAKF MURJIN                     | 7459 ( 240613)    |                |                 |                | 7459 ( 240613)    |
| NOV. POINT                      | 76 ( 2452)        | 126 ( 4065)    | 442 ( 15548)    | 200 ( 6452)    | 884 ( 28517)      |
| POINT                           | 1263 ( 40742)     | 174 ( 5613)    | 333 ( 10742)    | 86 ( 2774)     | 1856 ( 59871)     |
| TOTAL                           | 8798 ( 283807)    | 300 ( 9678)    | 815 ( 26290)    | 286 ( 9226)    | 10199 ( 329001)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                  | WESTERN BASIN     | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|----------------------------------|-------------------|-----------------|----------------|-------------------|
| DEPT/ST. CLR BASIN               |                   |                 |                |                   |
| <b>TOTAL PHOSPHORUS</b>          |                   |                 |                |                   |
| LAKE MURPHY                      | 180 ( 4667)       |                 |                | 180 ( 4667)       |
| ACK POINT                        | 24 ( 800)         |                 |                | 24 ( 800)         |
| POINT                            | 263 ( 8767)       | 4 ( 133)        | 15 ( 500)      | 538 ( 17934)      |
| TOTAL                            | 467 ( 14234)      | 201 ( 6700)     | 29 ( 967)      | 722 ( 24067)      |
| <b>ORTHOPHOSPHORUS</b>           |                   |                 |                |                   |
| LAKE MURPHY                      | 57 ( 1900)        |                 |                | 57 ( 1900)        |
| ACK POINT                        | 7 ( 233)          |                 |                | 7 ( 233)          |
| POINT                            | 124 ( 4133)       | 2 ( 67)         | 2 ( 67)        | 128 ( 4200)       |
| TOTAL                            | 188 ( 6260)       | 94 ( 3300)      | 15 ( 500)      | 297 ( 9560)       |
| <b>NITRATE-NITRIFIC NITROGEN</b> |                   |                 |                |                   |
| LAKE MURPHY                      | 3793 ( 126433)    |                 |                | 3793 ( 126433)    |
| ACK POINT                        | 162 ( 5400)       |                 |                | 162 ( 5400)       |
| POINT                            | 903 ( 30100)      | 51 ( 1700)      | 272 ( 9067)    | 1351 ( 45034)     |
| TOTAL                            | 4858 ( 161933)    | 213 ( 7100)     | 110 ( 3667)    | 5664 ( 188001)    |
| <b>AMMONIA NITROGEN</b>          |                   |                 |                |                   |
| LAKE MURPHY                      | 155 ( 5167)       |                 |                | 155 ( 5167)       |
| ACK POINT                        | 1 ( 33)           |                 |                | 1 ( 33)           |
| POINT                            | 1128 ( 37600)     | 4 ( 133)        | 7 ( 233)       | 1139 ( 37934)     |
| TOTAL                            | 1284 ( 42800)     | 47 ( 14900)     | 107 ( 3567)    | 1811 ( 60367)     |
| <b>ORGANIC NITROGEN</b>          |                   |                 |                |                   |
| LAKE MURPHY                      | 3796 ( 126533)    |                 |                | 3796 ( 126533)    |
| ACK POINT                        | 36 ( 1200)        |                 |                | 36 ( 1200)        |
| POINT                            | 631 ( 21033)      | 37 ( 1233)      | 96 ( 3200)     | 881 ( 29367)      |
| TOTAL                            | 4463 ( 147766)    | 143 ( 4767)     | 135 ( 4500)    | 4871 ( 162366)    |
| <b>CHLORIDE</b>                  |                   |                 |                |                   |
| LAKE MURPHY                      | 87562 ( 2918733)  |                 |                | 87562 ( 2918733)  |
| ACK POINT                        | 3731 ( 124367)    |                 |                | 3731 ( 124367)    |
| POINT                            | 159337 ( 5311233) | 1356 ( 45200)   | 3859 ( 128633) | 176953 ( 5898433) |
| TOTAL                            | 250630 ( 8354333) | 10083 ( 336100) | 2672 ( 89067)  | 275654 ( 9188466) |
| <b>SILICA</b>                    |                   |                 |                |                   |
| LAKE MURPHY                      | 7254 ( 241800)    |                 |                | 7254 ( 241800)    |
| ACK POINT                        | 360 ( 12000)      |                 |                | 360 ( 12000)      |
| POINT                            | 1264 ( 42300)     | 236 ( 7867)     | 428 ( 14267)   | 1810 ( 60334)     |
| TOTAL                            | 8878 ( 296100)    | 321 ( 10700)    | 511 ( 17034)   | 10220 ( 340068)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                | WESTERN BASIN     |                |  | CENTRAL BASIN   |  |  | EASTERN BASIN  |  |  | TOTAL             |
|--------------------------------|-------------------|----------------|--|-----------------|--|--|----------------|--|--|-------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                |  |                 |  |  |                |  |  |                   |
| LAKE MUPON                     | 147 ( 4742)       |                |  |                 |  |  |                |  |  | 147 ( 4742)       |
| MON POINT                      | 29 ( 435)         |                |  |                 |  |  |                |  |  | 51 ( 1645)        |
| POINT                          | 271 ( 4742)       | 1 ( 32)        |  | 6 ( 194)        |  |  | 15 ( 484)      |  |  | 567 ( 18290)      |
| TOTAL                          | 447 ( 14414)      | 45 ( 1452)     |  | 222 ( 7161)     |  |  | 29 ( 935)      |  |  | 765 ( 24677)      |
|                                |                   | 46 ( 1484)     |  | 228 ( 7355)     |  |  | 44 ( 1419)     |  |  |                   |
| <b>ORTHOPHOSPHORUS</b>         |                   |                |  |                 |  |  |                |  |  |                   |
| LAKE MUPON                     | 60 ( 1935)        |                |  |                 |  |  |                |  |  | 60 ( 1935)        |
| MON POINT                      | 10 ( 323)         |                |  |                 |  |  |                |  |  | 16 ( 517)         |
| POINT                          | 128 ( 4129)       | 1 ( 32)        |  | 3 ( 97)         |  |  | 2 ( 65)        |  |  | 274 ( 8039)       |
| TOTAL                          | 198 ( 6387)       | 22 ( 710)      |  | 109 ( 3516)     |  |  | 15 ( 484)      |  |  | 350 ( 11291)      |
|                                |                   | 23 ( 742)      |  | 112 ( 3613)     |  |  | 17 ( 549)      |  |  |                   |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                |  |                 |  |  |                |  |  |                   |
| LAKE MUPON                     | 3978 ( 128323)    |                |  |                 |  |  |                |  |  | 3978 ( 128323)    |
| MON POINT                      | 269 ( 8677)       |                |  |                 |  |  |                |  |  | 740 ( 23070)      |
| POINT                          | 934 ( 30129)      | 48 ( 1548)     |  | 122 ( 3935)     |  |  | 301 ( 9710)    |  |  | 1430 ( 46128)     |
| TOTAL                          | 5181 ( 167129)    | 121 ( 3903)    |  | 261 ( 8419)     |  |  | 114 ( 3677)    |  |  | 6148 ( 198321)    |
|                                |                   | 169 ( 5451)    |  | 383 ( 12354)    |  |  | 415 ( 13387)   |  |  |                   |
| <b>AMMONIA NITROGEN</b>        |                   |                |  |                 |  |  |                |  |  |                   |
| LAKE MUPON                     | 162 ( 5226)       |                |  |                 |  |  |                |  |  | 162 ( 5226)       |
| MON POINT                      | 1 ( 32)           |                |  |                 |  |  |                |  |  | 20 ( 645)         |
| POINT                          | 1168 ( 37677)     | 2 ( 65)        |  | 5 ( 161)        |  |  | 12 ( 387)      |  |  | 1873 ( 60419)     |
| TOTAL                          | 1331 ( 42935)     | 139 ( 4844)    |  | 470 ( 15161)    |  |  | 96 ( 3097)     |  |  | 2055 ( 66290)     |
|                                |                   | 141 ( 4549)    |  | 475 ( 15322)    |  |  | 108 ( 3484)    |  |  |                   |
| <b>ORGANIC NITROGEN</b>        |                   |                |  |                 |  |  |                |  |  |                   |
| LAKE MUPON                     | 3981 ( 128419)    |                |  |                 |  |  |                |  |  | 3981 ( 128419)    |
| MON POINT                      | 84 ( 1419)        |                |  |                 |  |  |                |  |  | 278 ( 8967)       |
| POINT                          | 651 ( 21080)      | 14 ( 452)      |  | 98 ( 3161)      |  |  | 122 ( 3935)    |  |  | 916 ( 29548)      |
| TOTAL                          | 4676 ( 150838)    | 72 ( 2323)     |  | 153 ( 4935)     |  |  | 40 ( 1290)     |  |  | 5175 ( 166934)    |
|                                |                   | 86 ( 2775)     |  | 251 ( 8096)     |  |  | 162 ( 5225)    |  |  |                   |
| <b>CHLORIDE</b>                |                   |                |  |                 |  |  |                |  |  |                   |
| LAKE MUPON                     | 91831 ( 2962290)  |                |  |                 |  |  |                |  |  | 91831 ( 2962290)  |
| MON POINT                      | 2516 ( 81161)     |                |  |                 |  |  |                |  |  | 16603 ( 535580)   |
| POINT                          | 163669 ( 527945)  | 4364 ( 140774) |  | 5310 ( 171290)  |  |  | 4413 ( 142355) |  |  | 181733 ( 5862355) |
| TOTAL                          | 258016 ( 8323096) | 4697 ( 151516) |  | 10605 ( 342097) |  |  | 2762 ( 89097)  |  |  | 290167 ( 9360225) |
|                                |                   | 9061 ( 292290) |  | 15915 ( 513387) |  |  | 7175 ( 231452) |  |  |                   |
| <b>SILICA</b>                  |                   |                |  |                 |  |  |                |  |  |                   |
| LAKE MUPON                     | 7608 ( 245414)    |                |  |                 |  |  |                |  |  | 7608 ( 245414)    |
| MON POINT                      | 478 ( 15419)      |                |  |                 |  |  |                |  |  | 1803 ( 58162)     |
| POINT                          | 1307 ( 42161)     | 169 ( 5452)    |  | 560 ( 18065)    |  |  | 596 ( 19226)   |  |  | 1859 ( 59967)     |
| TOTAL                          | 9393 ( 302999)    | 131 ( 4290)    |  | 333 ( 10742)    |  |  | 86 ( 2774)     |  |  | 11270 ( 363548)   |
|                                |                   | 302 ( 9742)    |  | 893 ( 28807)    |  |  | 682 ( 22000)   |  |  |                   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE HURON                      | 180 ( 4667)       |                 |                 |                | 180 ( 4667)       |
| MON POINT                       | 26 ( 867)         | 2 ( 67)         | 7 ( 233)        | 14 ( 467)      | 49 ( 1634)        |
| POINT                           | 264 ( 8800)       | 50 ( 1667)      | 206 ( 6867)     | 29 ( 967)      | 549 ( 18301)      |
| TOTAL                           | 470 ( 14334)      | 52 ( 1734)      | 213 ( 7100)     | 43 ( 1434)     | 738 ( 24602)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                 |                |                   |
| LAKE HURON                      | 57 ( 1900)        |                 |                 |                | 57 ( 1900)        |
| MON POINT                       | 9 ( 300)          | 1 ( 33)         | 3 ( 100)        | 3 ( 100)       | 16 ( 533)         |
| POINT                           | 124 ( 4133)       | 24 ( 800)       | 102 ( 3400)     | 15 ( 500)      | 265 ( 8633)       |
| TOTAL                           | 190 ( 6333)       | 25 ( 833)       | 105 ( 3500)     | 18 ( 600)      | 338 ( 11266)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                |                   |
| LAKE HURON                      | 3774 ( 125800)    |                 |                 |                | 3774 ( 125800)    |
| MON POINT                       | 252 ( 8400)       | 98 ( 3267)      | 133 ( 4433)     | 293 ( 9767)    | 776 ( 25867)      |
| POINT                           | 906 ( 30200)      | 155 ( 5167)     | 234 ( 7800)     | 110 ( 3667)    | 1405 ( 46834)     |
| TOTAL                           | 4932 ( 160000)    | 253 ( 8434)     | 367 ( 12233)    | 403 ( 13434)   | 5955 ( 198501)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE HURON                      | 154 ( 5133)       |                 |                 |                | 154 ( 5133)       |
| MON POINT                       | 1 ( 33)           | 3 ( 100)        | 8 ( 267)        | 7 ( 233)       | 19 ( 633)         |
| POINT                           | 1130 ( 37667)     | 148 ( 4933)     | 452 ( 15067)    | 97 ( 3233)     | 1827 ( 60900)     |
| TOTAL                           | 1285 ( 42833)     | 151 ( 5033)     | 460 ( 15334)    | 104 ( 3466)    | 2000 ( 66666)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE HURON                      | 3777 ( 125900)    |                 |                 |                | 3777 ( 125900)    |
| MON POINT                       | 47 ( 1567)        | 68 ( 2267)      | 67 ( 2233)      | 96 ( 3200)     | 278 ( 9267)       |
| POINT                           | 633 ( 21100)      | 72 ( 2400)      | 147 ( 4900)     | 39 ( 1300)     | 891 ( 29700)      |
| TOTAL                           | 4457 ( 148567)    | 140 ( 4667)     | 214 ( 7133)     | 135 ( 4500)    | 4946 ( 164867)    |
| <b>CHLORIDE</b>                 |                   |                 |                 |                |                   |
| LAKE HURON                      | 47127 ( 2904233)  |                 |                 |                | 47127 ( 2904233)  |
| MON POINT                       | 2860 ( 95333)     | 4821 ( 227567)  | 3100 ( 103333)  | 4379 ( 145967) | 17160 ( 572000)   |
| POINT                           | 159416 ( 5313667) | 5346 ( 178200)  | 10289 ( 342967) | 2672 ( 89067)  | 177723 ( 592101)  |
| TOTAL                           | 249403 ( 8113433) | 12167 ( 405567) | 13389 ( 446300) | 7051 ( 235034) | 282010 ( 9400334) |
| <b>SILICA</b>                   |                   |                 |                 |                |                   |
| LAKE HURON                      | 7218 ( 240600)    |                 |                 |                | 7218 ( 240600)    |
| MON POINT                       | 453 ( 15100)      | 246 ( 8200)     | 380 ( 12667)    | 498 ( 16600)   | 1577 ( 52567)     |
| POINT                           | 1281 ( 42700)     | 161 ( 5367)     | 322 ( 10733)    | 83 ( 2767)     | 1847 ( 61567)     |
| TOTAL                           | 8952 ( 298400)    | 407 ( 13567)    | 702 ( 23400)    | 581 ( 19367)   | 10642 ( 354734)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR DECEMBER, 1978  
(AVE DAILY LOADS IN KG/DAY)

|                                | DEI/ST. CLIP BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL              |
|--------------------------------|--------------------|-----------------|-----------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>        |                    |                 |                 |                |                    |
| LAKE MURUM                     | 139 ( 4484)        |                 |                 |                | 139 ( 4484)        |
| MON. POINT                     | 43 ( 1387)         | 10 ( 323)       | 45 ( 1452)      | 28 ( 903)      | 126 ( 4065)        |
| POINT                          | 272 ( 8774)        | 68 ( 2194)      | 238 ( 7677)     | 29 ( 935)      | 607 ( 19580)       |
| TOTAL                          | 454 ( 14645)       | 78 ( 2517)      | 283 ( 9129)     | 57 ( 1838)     | 872 ( 28129)       |
| <b>ORTHOPHOSPHORUS</b>         |                    |                 |                 |                |                    |
| LAKE MURUM                     | 57 ( 1839)         |                 |                 |                | 57 ( 1839)         |
| MON. POINT                     | 16 ( 516)          | 2 ( 65)         | 10 ( 323)       | 5 ( 161)       | 33 ( 1065)         |
| POINT                          | 128 ( 4129)        | 34 ( 1097)      | 119 ( 3839)     | 15 ( 484)      | 296 ( 9549)        |
| TOTAL                          | 201 ( 6484)        | 36 ( 1162)      | 129 ( 4162)     | 20 ( 645)      | 386 ( 12453)       |
| <b>NITRAIF-NITRIF NITROGEN</b> |                    |                 |                 |                |                    |
| LAKE MURUM                     | 3764 ( 121419)     |                 |                 |                | 3764 ( 121419)     |
| MON. POINT                     | 591 ( 19045)       | 689 ( 22226)    | 709 ( 22871)    | 512 ( 16516)   | 2501 ( 80678)      |
| POINT                          | 940 ( 30323)       | 190 ( 6129)     | 271 ( 8742)     | 114 ( 3677)    | 1515 ( 48871)      |
| TOTAL                          | 5205 ( 170807)     | 879 ( 28355)    | 980 ( 31613)    | 626 ( 20193)   | 7780 ( 250968)     |
| <b>AMMONIA NITROGEN</b>        |                    |                 |                 |                |                    |
| LAKE MURUM                     | 153 ( 4935)        |                 |                 |                | 153 ( 4935)        |
| MON. POINT                     | 3 ( 97)            | 5 ( 161)        | 21 ( 677)       | 20 ( 645)      | 49 ( 1500)         |
| POINT                          | 1179 ( 38032)      | 174 ( 5613)     | 482 ( 15548)    | 103 ( 3323)    | 1938 ( 62516)      |
| TOTAL                          | 1335 ( 43064)      | 179 ( 5774)     | 503 ( 16225)    | 123 ( 3968)    | 2140 ( 69031)      |
| <b>ORGANIC NITROGEN</b>        |                    |                 |                 |                |                    |
| LAKE MURUM                     | 3767 ( 121516)     |                 |                 |                | 3767 ( 121516)     |
| MON. POINT                     | 110 ( 3548)        | 252 ( 8129)     | 343 ( 11065)    | 202 ( 6516)    | 907 ( 29258)       |
| POINT                          | 657 ( 21194)       | 75 ( 2419)      | 155 ( 5000)     | 40 ( 1290)     | 927 ( 29903)       |
| TOTAL                          | 4534 ( 146258)     | 327 ( 10548)    | 498 ( 16065)    | 242 ( 7806)    | 5601 ( 180677)     |
| <b>CHLORINE</b>                |                    |                 |                 |                |                    |
| LAKE MURUM                     | 96880 ( 2802581)   |                 |                 |                | 96880 ( 2802581)   |
| MON. POINT                     | 5528 ( 178323)     | 10804 ( 348516) | 14648 ( 473806) | 6247 ( 201516) | 37267 ( 1202161)   |
| POINT                          | 167004 ( 5387226)  | 5622 ( 181355)  | 10488 ( 343484) | 2762 ( 89097)  | 186036 ( 6001162)  |
| TOTAL                          | 259412 ( 8368130)  | 16426 ( 529871) | 25336 ( 817290) | 9009 ( 290613) | 310183 ( 10005904) |
| <b>SILICA</b>                  |                    |                 |                 |                |                    |
| LAKE MURUM                     | 7198 ( 232194)     |                 |                 |                | 7198 ( 232194)     |
| MON. POINT                     | 866 ( 27935)       | 944 ( 30452)    | 1070 ( 60323)   | 1097 ( 35387)  | 4777 ( 150097)     |
| POINT                          | 1343 ( 43323)      | 174 ( 5613)     | 333 ( 10742)    | 96 ( 2774)     | 1936 ( 62452)      |
| TOTAL                          | 9407 ( 303452)     | 1118 ( 36065)   | 2203 ( 71065)   | 1193 ( 38161)  | 13911 ( 448743)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FROM JANUARY, 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN   | TOTAL             |
|---------------------------------|-------------------|-----------------|------------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                 |                   |
| LAKE MURPHY                     | 114 ( 3677)       | 45 ( 1452)      | 170 ( 5484)      | 124 ( 4000)     | 114 ( 3677)       |
| DOWN POINT                      | 63 ( 2032)        | 53 ( 1710)      | 169 ( 5452)      | 25 ( 806)       | 402 ( 12968)      |
| POINT                           | 186 ( 6080)       | 98 ( 3162)      | 339 ( 10936)     | 149 ( 4806)     | 433 ( 13968)      |
| TOTAL                           | 363 ( 11789)      |                 |                  |                 | 949 ( 30613)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                 |                   |
| LAKE MURPHY                     | 46 ( 1484)        | 19 ( 613)       | 24 ( 774)        | 13 ( 419)       | 46 ( 1484)        |
| DOWN POINT                      | 23 ( 742)         | 27 ( 871)       | 81 ( 2613)       | 13 ( 419)       | 79 ( 2508)        |
| POINT                           | 130 ( 4194)       | 46 ( 1494)      | 105 ( 3387)      | 26 ( 838)       | 251 ( 8097)       |
| TOTAL                           | 199 ( 6420)       |                 |                  |                 | 376 ( 12129)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                 |                   |
| LAKE MURPHY                     | 3042 ( 98129)     | 1062 ( 34258)   | 1292 ( 41677)    | 780 ( 25161)    | 3042 ( 98129)     |
| DOWN POINT                      | 1077 ( 34782)     | 204 ( 6581)     | 245 ( 9194)      | 116 ( 3742)     | 4211 ( 135838)    |
| POINT                           | 933 ( 30097)      | 1266 ( 40839)   | 1577 ( 50871)    | 896 ( 28903)    | 1538 ( 49614)     |
| TOTAL                           | 5052 ( 162968)    |                 |                  |                 | 8791 ( 263581)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                 |                   |
| LAKE MURPHY                     | 124 ( 4000)       | 5 ( 161)        | 36 ( 1161)       | 29 ( 935)       | 124 ( 4000)       |
| DOWN POINT                      | 11 ( 355)         | 260 ( 8387)     | 484 ( 15613)     | 120 ( 3871)     | 81 ( 2612)        |
| POINT                           | 1202 ( 38774)     | 265 ( 8548)     | 520 ( 16774)     | 149 ( 4806)     | 2066 ( 66645)     |
| TOTAL                           | 1337 ( 43129)     |                 |                  |                 | 2271 ( 73257)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                 |                   |
| LAKE MURPHY                     | 3044 ( 98194)     | 352 ( 11355)    | 451 ( 27452)     | 393 ( 12677)    | 3044 ( 98194)     |
| DOWN POINT                      | 211 ( 6806)       | 79 ( 2548)      | 160 ( 5161)      | 41 ( 1323)      | 1807 ( 58290)     |
| POINT                           | 656 ( 21161)      | 431 ( 13903)    | 1011 ( 32613)    | 434 ( 14000)    | 936 ( 30193)      |
| TOTAL                           | 3911 ( 126161)    |                 |                  |                 | 5787 ( 186677)    |
| <b>CHLORIDE</b>                 |                   |                 |                  |                 |                   |
| LAKE MURPHY                     | 70224 ( 2265290)  | 15002 ( 483935) | 23733 ( 765581)  | 8863 ( 285903)  | 70224 ( 2265290)  |
| DOWN POINT                      | 8311 ( 268097)    | 5587 ( 180226)  | 10923 ( 352355)  | 2799 ( 90290)   | 55909 ( 1803516)  |
| POINT                           | 163948 ( 5289935) | 20589 ( 664161) | 34656 ( 1117936) | 11662 ( 376193) | 183297 ( 5912806) |
| TOTAL                           | 242523 ( 7823322) |                 |                  |                 | 309430 ( 9981612) |
| <b>SILICA</b>                   |                   |                 |                  |                 |                   |
| LAKE MURPHY                     | 5817 ( 187645)    | 1696 ( 54710)   | 3580 ( 115484)   | 1892 ( 61032)   | 5817 ( 187645)    |
| DOWN POINT                      | 1356 ( 43782)     | 174 ( 5613)     | 341 ( 11000)     | 88 ( 2839)      | 8524 ( 274968)    |
| POINT                           | 4501 ( 274226)    | 1870 ( 60323)   | 3921 ( 126484)   | 1980 ( 63871)   | 1931 ( 62291)     |
| TOTAL                           |                   |                 |                  |                 | 16272 ( 524904)   |

BASED LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DEP/ST. CLP BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|------------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                   |
| LAKE MURON                      | 107 ( 3021)       | 34 ( 1214)      | 217 ( 7750)      | 22 ( 786)      | 107 ( 3021)       |
| NO. POINT                       | 26 ( 929)         | 47 ( 1679)      | 160 ( 5714)      | 23 ( 821)      | 299 ( 10679)      |
| POINT                           | 167 ( 5943)       | 81 ( 2893)      | 377 ( 13464)     | 45 ( 1607)     | 397 ( 14178)      |
| TOTAL                           | 300 ( 10714)      |                 |                  |                | 803 ( 28678)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                  |                |                   |
| LAKE MURON                      | 84 ( 1571)        | 14 ( 500)       | 31 ( 1107)       | 4 ( 143)       | 84 ( 1571)        |
| NO. POINT                       | 9 ( 321)          | 24 ( 857)       | 74 ( 2714)       | 11 ( 393)      | 58 ( 2071)        |
| POINT                           | 118 ( 4214)       | 38 ( 1357)      | 107 ( 3821)      | 15 ( 536)      | 229 ( 8178)       |
| TOTAL                           | 171 ( 6106)       |                 |                  |                | 331 ( 11020)      |
| <b>NITRATE-NITRILE NITROGEN</b> |                   |                 |                  |                |                   |
| LAKE MURON                      | 2906 ( 103786)    | 804 ( 28714)    | 1713 ( 61179)    | 245 ( 8750)    | 2906 ( 103786)    |
| NO. POINT                       | 240 ( 8571)       | 185 ( 6607)     | 258 ( 9214)      | 104 ( 3714)    | 3002 ( 107214)    |
| POINT                           | 837 ( 29893)      | 989 ( 35321)    | 1971 ( 70393)    | 349 ( 12464)   | 1384 ( 49428)     |
| TOTAL                           | 3983 ( 142250)    |                 |                  |                | 7292 ( 260428)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                   |
| LAKE MURON                      | 118 ( 4214)       | 4 ( 143)        | 42 ( 1500)       | 15 ( 536)      | 118 ( 4214)       |
| NO. POINT                       | 3 ( 107)          | 226 ( 8071)     | 442 ( 15786)     | 90 ( 3214)     | 64 ( 2286)        |
| POINT                           | 1061 ( 37893)     | 230 ( 8214)     | 484 ( 17286)     | 105 ( 3750)    | 1819 ( 64964)     |
| TOTAL                           | 1182 ( 42214)     |                 |                  |                | 2001 ( 71464)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                   |
| LAKE MURON                      | 2908 ( 103857)    | 199 ( 7107)     | 1074 ( 38357)    | 136 ( 4857)    | 2908 ( 103857)    |
| NO. POINT                       | 53 ( 1893)        | 71 ( 2536)      | 143 ( 5107)      | 36 ( 1286)     | 1462 ( 52214)     |
| POINT                           | 549 ( 21036)      | 270 ( 9683)     | 1217 ( 43464)    | 172 ( 6143)    | 839 ( 29965)      |
| TOTAL                           | 3510 ( 126786)    |                 |                  |                | 5209 ( 186036)    |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                   |
| LAKE MURON                      | 67087 ( 2395964)  | 10718 ( 382786) | 21667 ( 773821)  | 4051 ( 144679) | 67087 ( 2395964)  |
| NO. POINT                       | 2756 ( 98429)     | 5046 ( 180214)  | 9866 ( 352357)   | 2527 ( 90250)  | 39192 ( 1399715)  |
| POINT                           | 147877 ( 5281321) | 15764 ( 563000) | 31533 ( 1126178) | 6578 ( 234920) | 165316 ( 5904142) |
| TOTAL                           | 217720 ( 7775714) |                 |                  |                | 271595 ( 9699821) |
| <b>SILICA</b>                   |                   |                 |                  |                |                   |
| LAKE MURON                      | 5558 ( 198500)    | 1346 ( 49500)   | 3555 ( 126964)   | 618 ( 22071)   | 5558 ( 198500)    |
| NO. POINT                       | 429 ( 15321)      | 157 ( 5607)     | 308 ( 11000)     | 79 ( 2821)     | 5988 ( 213856)    |
| POINT                           | 1180 ( 42143)     | 1583 ( 55107)   | 3863 ( 137964)   | 697 ( 24892)   | 1724 ( 61571)     |
| TOTAL                           | 7167 ( 255964)    |                 |                  |                | 13270 ( 473927)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH, 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN  | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                  |                 |                    |
| LAKE MURON                      | 137 ( 4419)        | 550 ( 17742)     | 845 ( 24548)     | 374 ( 12065)    | 137 ( 4419)        |
| NON POINT                       | 282 ( 9097)        | 55 ( 1774)       | 180 ( 5806)      | 25 ( 806)       | 2091 ( 67452)      |
| POINT                           | 186 ( 6000)        | 55 ( 1774)       | 180 ( 5806)      | 25 ( 806)       | 486 ( 16386)       |
| TOTAL                           | 605 ( 19516)       | 605 ( 19516)     | 1065 ( 34354)    | 399 ( 12871)    | 2674 ( 86257)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                  |                 |                    |
| LAKE MURON                      | 56 ( 1806)         | 173 ( 5581)      | 129 ( 4161)      | 52 ( 1677)      | 56 ( 1806)         |
| NON POINT                       | 117 ( 3774)        | 27 ( 871)        | 87 ( 2806)       | 13 ( 419)       | 471 ( 15193)       |
| POINT                           | 131 ( 4226)        | 200 ( 6452)      | 216 ( 6967)      | 65 ( 2096)      | 258 ( 8322)        |
| TOTAL                           | 304 ( 9806)        | 200 ( 6452)      | 216 ( 6967)      | 65 ( 2096)      | 785 ( 25321)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                    |                  |                  |                 |                    |
| LAKE MURON                      | 3705 ( 119516)     | 6739 ( 217387)   | 5639 ( 181903)   | 2794 ( 90290)   | 3705 ( 119516)     |
| NON POINT                       | 4655 ( 150161)     | 204 ( 6581)      | 285 ( 9194)      | 116 ( 3742)     | 19832 ( 639741)    |
| POINT                           | 975 ( 31452)       | 6903 ( 223968)   | 5924 ( 191097)   | 2915 ( 94032)   | 1580 ( 50969)      |
| TOTAL                           | 9335 ( 301129)     | 6903 ( 223968)   | 5924 ( 191097)   | 2915 ( 94032)   | 25117 ( 810226)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                  |                 |                    |
| LAKE MURON                      | 151 ( 4871)        | 625 ( 20161)     | 247 ( 7968)      | 131 ( 4226)     | 151 ( 4871)        |
| NON POINT                       | 168 ( 5419)        | 297 ( 9581)      | 496 ( 16000)     | 134 ( 4323)     | 1171 ( 37778)      |
| POINT                           | 1265 ( 40806)      | 922 ( 29742)     | 743 ( 23968)     | 265 ( 8549)     | 2192 ( 70710)      |
| TOTAL                           | 1584 ( 51096)      | 922 ( 29742)     | 743 ( 23968)     | 265 ( 8549)     | 3514 ( 113355)     |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                  |                 |                    |
| LAKE MURON                      | 3708 ( 119613)     | 1906 ( 61484)    | 3678 ( 125097)   | 1201 ( 38742)   | 3708 ( 119613)     |
| NON POINT                       | 1201 ( 38742)      | 84 ( 2710)       | 160 ( 5161)      | 41 ( 1323)      | 8186 ( 264065)     |
| POINT                           | 645 ( 22419)       | 1990 ( 64194)    | 4038 ( 130256)   | 1242 ( 40065)   | 980 ( 31613)       |
| TOTAL                           | 5604 ( 180774)     | 1990 ( 64194)    | 4038 ( 130256)   | 1242 ( 40065)   | 12074 ( 415291)    |
| <b>CHLORIDE</b>                 |                    |                  |                  |                 |                    |
| LAKE MURON                      | 85529 ( 2759000)   | 56391 ( 1819065) | 66010 ( 2129355) | 19110 ( 616452) | 85529 ( 2759000)   |
| NON POINT                       | 59384 ( 1915613)   | 5587 ( 180226)   | 10923 ( 352355)  | 2799 ( 90290)   | 200895 ( 6480485)  |
| POINT                           | 167240 ( 5398839)  | 61978 ( 1999291) | 76933 ( 2481710) | 21909 ( 706742) | 184549 ( 6017710)  |
| TOTAL                           | 312153 ( 10069452) | 61978 ( 1999291) | 76933 ( 2481710) | 21909 ( 706742) | 472973 ( 15257195) |
| <b>SILICA</b>                   |                    |                  |                  |                 |                    |
| LAKE MURON                      | 7046 ( 228581)     | 10610 ( 342258)  | 10301 ( 333581)  | 4350 ( 140323)  | 7046 ( 228581)     |
| NON POINT                       | 7148 ( 230581)     | 174 ( 5613)      | 341 ( 11000)     | 88 ( 2839)      | 32449 ( 1046743)   |
| POINT                           | 1346 ( 43419)      | 10784 ( 347871)  | 10862 ( 347581)  | 4438 ( 143162)  | 1949 ( 62871)      |
| TOTAL                           | 14540 ( 502581)    | 10784 ( 347871)  | 10862 ( 347581)  | 4438 ( 143162)  | 41484 ( 1338195)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN      | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|--------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                    |                  |                 |                    |
| LAKE MURPHY                     | 137 ( 4567)        | 612 ( 20800)     | 210 ( 7000)     | 137 ( 4567)        |
| MON POINT                       | 360 ( 12000)       | 167 ( 5567)      | 24 ( 800)       | 1698 ( 56600)      |
| POINT                           | 180 ( 6000)        | 53 ( 1767)       | 24 ( 800)       | 424 ( 14134)       |
| TOTAL                           | 677 ( 22567)       | 779 ( 25967)     | 234 ( 7800)     | 2259 ( 75301)      |
| <b>ORTHO PHOSPHORUS</b>         |                    |                  |                 |                    |
| LAKE MURPHY                     | 56 ( 1867)         | 120 ( 4000)      | 53 ( 1767)      | 56 ( 1867)         |
| MON POINT                       | 152 ( 5067)        | 84 ( 2800)       | 12 ( 400)       | 486 ( 16201)       |
| POINT                           | 127 ( 4233)        | 204 ( 6800)      | 65 ( 2167)      | 249 ( 8300)        |
| TOTAL                           | 335 ( 11167)       | 204 ( 6800)      | 65 ( 2167)      | 791 ( 26368)       |
| <b>NITRATE-NITRITE-NITROGEN</b> |                    |                  |                 |                    |
| LAKE MURPHY                     | 3699 ( 123300)     | 5362 ( 178733)   | 2235 ( 74500)   | 3699 ( 123300)     |
| MON POINT                       | 5113 ( 170433)     | 276 ( 9200)      | 112 ( 3733)     | 20262 ( 675399)    |
| POINT                           | 1005 ( 33500)      | 5618 ( 187933)   | 2347 ( 78233)   | 1591 ( 53033)      |
| TOTAL                           | 9817 ( 327233)     | 7750 ( 258333)   | 2347 ( 78233)   | 25552 ( 851732)    |
| <b>AMMONIA NITROGEN</b>         |                    |                  |                 |                    |
| LAKE MURPHY                     | 151 ( 5033)        | 217 ( 7233)      | 139 ( 4633)     | 151 ( 5033)        |
| MON POINT                       | 267 ( 8900)        | 475 ( 15833)     | 130 ( 4333)     | 1176 ( 39199)      |
| POINT                           | 1231 ( 41033)      | 692 ( 23066)     | 269 ( 8966)     | 2123 ( 70766)      |
| TOTAL                           | 1609 ( 54966)      | 840 ( 28000)     | 269 ( 8966)     | 3450 ( 114998)     |
| <b>ORGANIC NITROGEN</b>         |                    |                  |                 |                    |
| LAKE MURPHY                     | 3702 ( 123400)     | 2750 ( 91667)    | 946 ( 31533)    | 3702 ( 123400)     |
| MON POINT                       | 1514 ( 50467)      | 153 ( 5100)      | 39 ( 1300)      | 7034 ( 234467)     |
| POINT                           | 727 ( 24233)       | 2903 ( 96767)    | 985 ( 32833)    | 1000 ( 33333)      |
| TOTAL                           | 5943 ( 198100)     | 2903 ( 96767)    | 985 ( 32833)    | 11736 ( 391200)    |
| <b>CHLORIDE</b>                 |                    |                  |                 |                    |
| LAKE MURPHY                     | 85384 ( 2846133)   | 56713 ( 1890433) | 17960 ( 598667) | 85384 ( 2846133)   |
| MON POINT                       | 44086 ( 3134433)   | 10571 ( 352367)  | 2709 ( 90300)   | 229020 ( 7634000)  |
| POINT                           | 161845 ( 5394833)  | 67284 ( 2242800) | 20669 ( 688967) | 180533 ( 601767)   |
| TOTAL                           | 341277 ( 11375899) | 67284 ( 2242800) | 20669 ( 688967) | 494917 ( 16497900) |
| <b>SILICA</b>                   |                    |                  |                 |                    |
| LAKE MURPHY                     | 7073 ( 235767)     | 8594 ( 286467)   | 3165 ( 105500)  | 7073 ( 235767)     |
| MON POINT                       | 9081 ( 302700)     | 330 ( 11000)     | 85 ( 2833)      | 31483 ( 1049434)   |
| POINT                           | 1303 ( 43433)      | 8924 ( 297467)   | 3250 ( 104333)  | 1886 ( 62866)      |
| TOTAL                           | 17457 ( 581900)    | 10811 ( 360367)  | 3250 ( 104333)  | 40442 ( 1348067)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MAY , 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                  |                 |                    |
| LAKE HURON                      | 151 ( 4871)       | 155 ( 5000)      | 242 ( 7806)      | 36 ( 1161)      | 151 ( 4871)        |
| MON POINT                       | 60 ( 1935)        | 55 ( 1774)       | 176 ( 5677)      | 25 ( 806)       | 493 ( 15902)       |
| POINT                           | 186 ( 6000)       | 210 ( 6774)      | 418 ( 13483)     | 61 ( 1967)      | 482 ( 14257)       |
| TOTAL                           | 397 ( 12806)      |                  |                  |                 | 1086 ( 35030)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                  |                  |                 |                    |
| LAKE HURON                      | 61 ( 1968)        | 51 ( 1645)       | 25 ( 806)        | 14 ( 452)       | 61 ( 1968)         |
| MON POINT                       | 26 ( 839)         | 27 ( 871)        | 83 ( 2677)       | 13 ( 419)       | 116 ( 3742)        |
| POINT                           | 110 ( 4194)       | 78 ( 2516)       | 108 ( 3483)      | 27 ( 871)       | 253 ( 8161)        |
| TOTAL                           | 217 ( 7001)       |                  |                  |                 | 430 ( 13871)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                  |                  |                 |                    |
| LAKE HURON                      | 4076 ( 131484)    | 2710 ( 87419)    | 1946 ( 62774)    | 764 ( 24685)    | 4076 ( 131484)     |
| MON POINT                       | 1082 ( 34903)     | 204 ( 6581)      | 285 ( 9194)      | 116 ( 3782)     | 6502 ( 209781)     |
| POINT                           | 945 ( 30884)      | 2914 ( 94000)    | 2231 ( 71968)    | 880 ( 28387)    | 1550 ( 50011)      |
| TOTAL                           | 6103 ( 196871)    |                  |                  |                 | 12128 ( 391226)    |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                  |                 |                    |
| LAKE HURON                      | 166 ( 5355)       | 71 ( 2290)       | 40 ( 1290)       | 18 ( 581)       | 166 ( 5355)        |
| MON POINT                       | 11 ( 355)         | 295 ( 9516)      | 495 ( 15968)     | 130 ( 4194)     | 140 ( 4516)        |
| POINT                           | 1199 ( 38677)     | 366 ( 11806)     | 535 ( 17258)     | 148 ( 4775)     | 2119 ( 68355)      |
| TOTAL                           | 1376 ( 44397)     |                  |                  |                 | 2425 ( 78226)      |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                  |                 |                    |
| LAKE HURON                      | 4079 ( 131581)    | 684 ( 22065)     | 1170 ( 37742)    | 227 ( 7323)     | 4079 ( 131581)     |
| MON POINT                       | 230 ( 7419)       | 42 ( 2645)       | 160 ( 5161)      | 41 ( 1323)      | 2311 ( 74549)      |
| POINT                           | 668 ( 21548)      | 766 ( 24710)     | 1330 ( 42903)    | 268 ( 8646)     | 951 ( 30677)       |
| TOTAL                           | 4977 ( 160548)    |                  |                  |                 | 7341 ( 236807)     |
| <b>CHLORINE</b>                 |                   |                  |                  |                 |                    |
| LAKE HURON                      | 94082 ( 3034903)  | 26778 ( 863806)  | 27385 ( 883387)  | 8700 ( 280685)  | 94082 ( 3034903)   |
| MON POINT                       | 25919 ( 836097)   | 5587 ( 180226)   | 10923 ( 352355)  | 2799 ( 90290)   | 88782 ( 2863935)   |
| POINT                           | 167240 ( 5394839) | 32365 ( 1044032) | 38308 ( 1235742) | 11499 ( 370935) | 186549 ( 6017710)  |
| TOTAL                           | 287241 ( 9265839) |                  |                  |                 | 369413 ( 11916548) |
| <b>SILICA</b>                   |                   |                  |                  |                 |                    |
| LAKE HURON                      | 7794 ( 251419)    | 4017 ( 129581)   | 3834 ( 123677)   | 1156 ( 37290)   | 7794 ( 251419)     |
| MON POINT                       | 1623 ( 52355)     | 174 ( 5613)      | 341 ( 11000)     | 88 ( 2839)      | 10630 ( 342903)    |
| POINT                           | 1386 ( 43419)     | 4191 ( 135194)   | 4175 ( 134677)   | 1244 ( 40129)   | 1989 ( 62871)      |
| TOTAL                           | 10763 ( 347193)   |                  |                  |                 | 20373 ( 657193)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR  
(AVE DAILY LOADS IN KG/DAY) JUNE , 1979

|                                 | UPP/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|-----------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                    |
| LAKE MURUM                      | 149 ( 4967)       | 27 ( 900)       | 27 ( 900)       | 15 ( 500)      | 149 ( 4967)        |
| NON POINT                       | 27 ( 900)         | 51 ( 1700)      | 150 ( 5000)     | 24 ( 800)      | 96 ( 3200)         |
| POINT                           | 179 ( 5967)       | 78 ( 2600)      | 177 ( 5900)     | 39 ( 1300)     | 404 ( 13467)       |
| TOTAL                           | 355 ( 11834)      |                 |                 |                | 649 ( 21634)       |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                 |                |                    |
| LAKE MURUM                      | 61 ( 2033)        | 13 ( 433)       | 10 ( 333)       | 4 ( 133)       | 61 ( 2033)         |
| NON POINT                       | 8 ( 267)          | 26 ( 867)       | 72 ( 2400)      | 11 ( 367)      | 35 ( 1166)         |
| POINT                           | 126 ( 4200)       | 39 ( 1300)      | 82 ( 2733)      | 15 ( 500)      | 235 ( 7834)        |
| TOTAL                           | 195 ( 6500)       |                 |                 |                | 331 ( 11033)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                |                    |
| LAKE MURUM                      | 4039 ( 134633)    | 864 ( 28800)    | 629 ( 20967)    | 268 ( 8933)    | 4039 ( 134633)     |
| NON POINT                       | 245 ( 8167)       | 198 ( 6600)     | 273 ( 9100)     | 112 ( 3733)    | 2006 ( 66867)      |
| POINT                           | 900 ( 30000)      | 1062 ( 35400)   | 902 ( 30067)    | 380 ( 12666)   | 1483 ( 49433)      |
| TOTAL                           | 5184 ( 172800)    |                 |                 |                | 7528 ( 250933)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                |                    |
| LAKE MURUM                      | 164 ( 5467)       | 2 ( 67)         | 10 ( 333)       | 8 ( 267)       | 164 ( 5467)        |
| NON POINT                       | 3 ( 100)          | 216 ( 7200)     | 466 ( 15533)    | 104 ( 3467)    | 23 ( 767)          |
| POINT                           | 1136 ( 37867)     | 218 ( 7267)     | 476 ( 15866)    | 112 ( 3734)    | 1922 ( 64067)      |
| TOTAL                           | 1303 ( 43434)     |                 |                 |                | 2109 ( 70301)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                    |
| LAKE MURUM                      | 4042 ( 134733)    | 295 ( 9833)     | 236 ( 7867)     | 89 ( 2967)     | 4042 ( 134733)     |
| NON POINT                       | 63 ( 2100)        | 76 ( 2533)      | 152 ( 5067)     | 39 ( 1300)     | 63 ( 22767)        |
| POINT                           | 634 ( 21133)      | 371 ( 12366)    | 388 ( 12934)    | 128 ( 4267)    | 901 ( 30033)       |
| TOTAL                           | 4739 ( 157966)    |                 |                 |                | 5626 ( 187533)     |
| <b>CHLORIDE</b>                 |                   |                 |                 |                |                    |
| LAKE MURUM                      | 93225 ( 3107500)  | 11839 ( 394633) | 10987 ( 36900)  | 4351 ( 145033) | 93225 ( 3107500)   |
| NON POINT                       | 5844 ( 198000)    | 5408 ( 180267)  | 10571 ( 352367) | 2709 ( 90300)  | 32981 ( 1099366)   |
| POINT                           | 160724 ( 5357467) | 17247 ( 574900) | 21518 ( 71267)  | 7060 ( 235333) | 179412 ( 590401)   |
| TOTAL                           | 259793 ( 8459767) |                 |                 |                | 305618 ( 10187267) |
| <b>SILICA</b>                   |                   |                 |                 |                |                    |
| LAKE MURUM                      | 7723 ( 257433)    | 1304 ( 43467)   | 1408 ( 46933)   | 472 ( 15733)   | 7723 ( 257433)     |
| NON POINT                       | 475 ( 15833)      | 168 ( 5600)     | 330 ( 11000)    | 85 ( 2833)     | 3659 ( 121966)     |
| POINT                           | 1286 ( 42867)     | 1472 ( 49067)   | 1738 ( 57933)   | 557 ( 18566)   | 1869 ( 62300)      |
| TOTAL                           | 9484 ( 316133)    |                 |                 |                | 13251 ( 441699)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JULY , 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                | WESTERN BASIN     | CENTRAL BASIN   | EASTERN BASIN  | TOTAL              |
|--------------------------------|-------------------|-----------------|----------------|--------------------|
| <b>DEF/ST. CLR BASIN</b>       |                   |                 |                |                    |
| <b>TOTAL PHOSPHORUS</b>        |                   |                 |                |                    |
| LAKE MURUM                     | 156 ( 5032)       |                 |                | 156 ( 5032)        |
| NON POINT                      | 28 ( 903)         |                 |                | 132 ( 4258)        |
| POINT                          | 182 ( 5871)       | 12 ( 387)       | 15 ( 484)      | 411 ( 13258)       |
| TOTAL                          | 366 ( 11806)      | 150 ( 4839)     | 25 ( 806)      | 699 ( 22588)       |
|                                | 131 ( 4226)       | 162 ( 5226)     | 40 ( 1290)     |                    |
| <b>ORTHO PHOSPHORUS</b>        |                   |                 |                |                    |
| LAKE MURUM                     | 64 ( 2065)        |                 |                | 64 ( 2065)         |
| NON POINT                      | 9 ( 290)          |                 |                | 51 ( 1645)         |
| POINT                          | 130 ( 4194)       | 4 ( 129)        | 2 ( 65)        | 283 ( 7839)        |
| TOTAL                          | 203 ( 6549)       | 73 ( 2355)      | 13 ( 419)      | 358 ( 11599)       |
|                                | 63 ( 2032)        | 77 ( 2484)      | 15 ( 484)      |                    |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                 |                |                    |
| LAKE MURUM                     | 4232 ( 136516)    |                 |                | 4232 ( 136516)     |
| NON POINT                      | 161 ( 5194)       |                 |                | 2193 ( 70782)      |
| POINT                          | 930 ( 30000)      | 389 ( 12548)    | 194 ( 3355)    | 1529 ( 49323)      |
| TOTAL                          | 5323 ( 171710)    | 279 ( 9000)     | 116 ( 3742)    | 7954 ( 256581)     |
|                                | 1743 ( 56226)     | 668 ( 21548)    | 220 ( 7097)    |                    |
| <b>AMMONIA NITROGEN</b>        |                   |                 |                |                    |
| LAKE MURUM                     | 172 ( 5508)       |                 |                | 172 ( 5508)        |
| NON POINT                      | 2 ( 65)           |                 |                | 61 ( 1968)         |
| POINT                          | 1174 ( 37871)     | 6 ( 194)        | 5 ( 161)       | 2029 ( 65452)      |
| TOTAL                          | 1348 ( 43484)     | 477 ( 15387)    | 100 ( 3226)    | 2262 ( 72968)      |
|                                | 326 ( 10516)      | 483 ( 15581)    | 105 ( 3387)    |                    |
| <b>ORGANIC NITROGEN</b>        |                   |                 |                |                    |
| LAKE MURUM                     | 4235 ( 136613)    |                 |                | 4235 ( 136613)     |
| NON POINT                      | 70 ( 2258)        |                 |                | 784 ( 25290)       |
| POINT                          | 662 ( 21355)      | 173 ( 5581)     | 87 ( 2806)     | 938 ( 30259)       |
| TOTAL                          | 4967 ( 160226)    | 155 ( 5000)     | 41 ( 1323)     | 5957 ( 192162)     |
|                                | 4967 ( 160226)    | 328 ( 10581)    | 128 ( 4129)    |                    |
| <b>CHLORIDE</b>                |                   |                 |                |                    |
| LAKE MURUM                     | 97683 ( 3151065)  |                 |                | 97683 ( 3151065)   |
| NON POINT                      | 10224 ( 329806)   |                 |                | 41395 ( 1335322)   |
| POINT                          | 166514 ( 5371419) | 8113 ( 261710)  | 2849 ( 91903)  | 185823 ( 5994290)  |
| TOTAL                          | 274421 ( 8552290) | 18923 ( 352355) | 2799 ( 90290)  | 324901 ( 10480677) |
|                                | 25796 ( 832129)   | 19036 ( 614065) | 5648 ( 182193) |                    |
| <b>SILICA</b>                  |                   |                 |                |                    |
| LAKE MURUM                     | 8093 ( 261065)    |                 |                | 8093 ( 261065)     |
| NON POINT                      | 466 ( 15032)      |                 |                | 4205 ( 135646)     |
| POINT                          | 1386 ( 43419)     | 990 ( 31935)    | 248 ( 8000)    | 1949 ( 62871)      |
| TOTAL                          | 9905 ( 319516)    | 341 ( 11000)    | 88 ( 2839)     | 14247 ( 459580)    |
|                                | 2675 ( 86290)     | 1331 ( 42935)   | 336 ( 10839)   |                    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR      AUGUST , 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                  | DET/ST. CLD BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL              |
|----------------------------------|-------------------|-----------------|-----------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>          |                   |                 |                 |                |                    |
| LAKE MURUM                       | 158 ( 5097)       | 134 ( 4323)     | 44 ( 1419)      | 17 ( 548)      | 150 ( 5097)        |
| NON POINT                        | 23 ( 742)         | 53 ( 1710)      | 164 ( 5200)     | 25 ( 806)      | 218 ( 7032)        |
| POINT                            | 182 ( 5871)       | 187 ( 6033)     | 206 ( 6709)     | 42 ( 1354)     | 424 ( 13677)       |
| TOTAL                            | 363 ( 11710)      |                 |                 |                | 800 ( 25806)       |
| <b>ORTHOPHOSPHORUS</b>           |                   |                 |                 |                |                    |
| LAKE MURUM                       | 64 ( 2045)        | 61 ( 1968)      | 12 ( 387)       | 3 ( 97)        | 64 ( 2045)         |
| NON POINT                        | 6 ( 194)          | 27 ( 871)       | 79 ( 2548)      | 13 ( 414)      | 82 ( 2646)         |
| POINT                            | 128 ( 4129)       | 88 ( 2839)      | 91 ( 2935)      | 16 ( 516)      | 247 ( 7967)        |
| TOTAL                            | 198 ( 6368)       |                 |                 |                | 393 ( 12678)       |
| <b>NITRATE-NITRIFIC NITROGEN</b> |                   |                 |                 |                |                    |
| LAKE MURUM                       | 4290 ( 135587)    | 2441 ( 78742)   | 978 ( 31548)    | 156 ( 5042)    | 4290 ( 138387)     |
| NON POINT                        | 32 ( 1032)        | 204 ( 6541)     | 285 ( 9194)     | 116 ( 3742)    | 3607 ( 116358)     |
| POINT                            | 926 ( 29871)      | 2645 ( 85323)   | 1263 ( 40742)   | 272 ( 8774)    | 1531 ( 49388)      |
| TOTAL                            | 5248 ( 169290)    |                 |                 |                | 9428 ( 304129)     |
| <b>AMMONIA NITROGEN</b>          |                   |                 |                 |                |                    |
| LAKE MURUM                       | 175 ( 5645)       | 174 ( 5613)     | 20 ( 645)       | 5 ( 161)       | 175 ( 5645)        |
| NON POINT                        | 1 ( 32)           | 268 ( 8645)     | 479 ( 15452)    | 102 ( 3290)    | 200 ( 6451)        |
| POINT                            | 1169 ( 37710)     | 442 ( 14258)    | 494 ( 16097)    | 107 ( 3451)    | 2018 ( 65097)      |
| TOTAL                            | 1345 ( 43587)     |                 |                 |                | 2393 ( 77193)      |
| <b>ORGANIC NITROGEN</b>          |                   |                 |                 |                |                    |
| LAKE MURUM                       | 4293 ( 138484)    | 700 ( 22581)    | 353 ( 11387)    | 101 ( 3258)    | 4293 ( 138484)     |
| NON POINT                        | 23 ( 742)         | 79 ( 2548)      | 160 ( 5161)     | 41 ( 1323)     | 1177 ( 37968)      |
| POINT                            | 651 ( 21000)      | 779 ( 25129)    | 513 ( 16548)    | 142 ( 4581)    | 931 ( 30032)       |
| TOTAL                            | 4967 ( 160226)    |                 |                 |                | 6401 ( 206484)     |
| <b>CHLORIDE</b>                  |                   |                 |                 |                |                    |
| LAKE MURUM                       | 99034 ( 3194445)  | 25263 ( 814935) | 14071 ( 453903) | 3511 ( 113258) | 99034 ( 3194445)   |
| NON POINT                        | 3954 ( 127548)    | 5587 ( 180226)  | 10923 ( 352355) | 2799 ( 90290)  | 46799 ( 1509648)   |
| POINT                            | 162655 ( 5248935) | 30850 ( 995161) | 24994 ( 806258) | 6310 ( 203548) | 181964 ( 5869806)  |
| TOTAL                            | 265643 ( 8569128) |                 |                 |                | 327797 ( 10574095) |
| <b>SILICA</b>                    |                   |                 |                 |                |                    |
| LAKE MURUM                       | 8204 ( 264445)    | 3922 ( 126516)  | 1420 ( 61935)   | 326 ( 10516)   | 8204 ( 264445)     |
| NON POINT                        | 211 ( 6886)       | 174 ( 5613)     | 341 ( 11000)    | 88 ( 2839)     | 6379 ( 205773)     |
| POINT                            | 1302 ( 42000)     | 4096 ( 132129)  | 2261 ( 72935)   | 414 ( 13355)   | 1905 ( 61452)      |
| TOTAL                            | 9717 ( 313451)    |                 |                 |                | 16448 ( 531870)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN  | TOTAL              |
|---------------------------------|-------------------|-----------------|------------------|----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 151 ( 5033)       | 11 ( 367)       | 175 ( 5033)      | 127 ( 4233)    | 151 ( 5033)        |
| NON POINT                       | 20 ( 667)         | 50 ( 1667)      | 165 ( 5500)      | 24 ( 800)      | 333 ( 11100)       |
| POINT                           | 174 ( 5800)       | 50 ( 1667)      | 165 ( 5500)      | 24 ( 800)      | 413 ( 13767)       |
| TOTAL                           | 345 ( 11500)      | 61 ( 2034)      | 340 ( 11333)     | 151 ( 5033)    | 897 ( 29900)       |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 61 ( 2033)        | 3 ( 100)        | 11 ( 367)        | 4 ( 133)       | 61 ( 2033)         |
| NON POINT                       | 4 ( 133)          | 25 ( 833)       | 80 ( 2667)       | 12 ( 400)      | 22 ( 733)          |
| POINT                           | 123 ( 4100)       | 28 ( 933)       | 91 ( 3034)       | 16 ( 533)      | 240 ( 8000)        |
| TOTAL                           | 188 ( 6266)       | 28 ( 933)       | 91 ( 3034)       | 16 ( 533)      | 323 ( 10766)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                  |                |                    |
| LAKE MURON                      | 4095 ( 136500)    | 512 ( 17067)    | 757 ( 25233)     | 275 ( 9167)    | 4095 ( 136500)     |
| NON POINT                       | 6 ( 200)          | 198 ( 6600)     | 276 ( 9200)      | 112 ( 3733)    | 1550 ( 51667)      |
| POINT                           | 872 ( 29067)      | 710 ( 23667)    | 1033 ( 34433)    | 387 ( 12900)   | 1458 ( 48600)      |
| TOTAL                           | 4973 ( 165767)    | 710 ( 23667)    | 1033 ( 34433)    | 387 ( 12900)   | 7103 ( 236767)     |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 167 ( 5567)       | 1 ( 33)         | 4 ( 133)         | 15 ( 500)      | 167 ( 5567)        |
| NON POINT                       | 0 ( 0)            | 177 ( 5900)     | 471 ( 15700)     | 98 ( 3267)     | 20 ( 666)          |
| POINT                           | 1126 ( 37533)     | 176 ( 5933)     | 475 ( 15833)     | 113 ( 3767)    | 1872 ( 62400)      |
| TOTAL                           | 1293 ( 43100)     | 176 ( 5933)     | 475 ( 15833)     | 113 ( 3767)    | 2059 ( 68633)      |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                  |                |                    |
| LAKE MURON                      | 4098 ( 136600)    | 213 ( 7100)     | 884 ( 29467)     | 272 ( 9067)    | 4098 ( 136600)     |
| NON POINT                       | 9 ( 300)          | 74 ( 2467)      | 153 ( 5100)      | 39 ( 1300)     | 1378 ( 45934)      |
| POINT                           | 622 ( 20733)      | 287 ( 9567)     | 1037 ( 34567)    | 311 ( 10367)   | 888 ( 29600)       |
| TOTAL                           | 4729 ( 157633)    | 287 ( 9567)     | 1037 ( 34567)    | 311 ( 10367)   | 6364 ( 212134)     |
| <b>CHLORIDE</b>                 |                   |                 |                  |                |                    |
| LAKE MURON                      | 94532 ( 3151067)  | 6860 ( 228667)  | 21310 ( 710333)  | 4566 ( 152200) | 94532 ( 3151067)   |
| NON POINT                       | 645 ( 21500)      | 5408 ( 180267)  | 10571 ( 352367)  | 2709 ( 90300)  | 33381 ( 1112700)   |
| POINT                           | 156249 ( 5208300) | 12208 ( 408934) | 31081 ( 1062700) | 7275 ( 242500) | 178937 ( 5831234)  |
| TOTAL                           | 251426 ( 836067)  | 12208 ( 408934) | 31081 ( 1062700) | 7275 ( 242500) | 302650 ( 10095001) |
| <b>SILICA</b>                   |                   |                 |                  |                |                    |
| LAKE MURON                      | 7631 ( 261033)    | 743 ( 24767)    | 3186 ( 106200)   | 911 ( 30367)   | 7831 ( 261033)     |
| NON POINT                       | 94 ( 3133)        | 168 ( 5600)     | 330 ( 11000)     | 85 ( 2833)     | 4934 ( 164467)     |
| POINT                           | 1236 ( 41200)     | 911 ( 30367)    | 3516 ( 117200)   | 906 ( 33200)   | 1819 ( 60633)      |
| TOTAL                           | 9161 ( 305366)    | 911 ( 30367)    | 3516 ( 117200)   | 906 ( 33200)   | 14584 ( 486133)    |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                | WESTERN BASIN     | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|--------------------------------|-------------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                 |                |                   |
| LAKE MURPHY                    | 151 ( 4871)       | 44 ( 1419)      | 25 ( 806)      | 151 ( 4871)       |
| NON POINT                      | 23 ( 742)         | 156 ( 5032)     | 25 ( 806)      | 95 ( 3064)        |
| POINT                          | 185 ( 5968)       | 200 ( 6451)     | 50 ( 1612)     | 404 ( 13032)      |
| TOTAL                          | 359 ( 11581)      |                 |                | 650 ( 20967)      |
| <b>ORTHOPHOSPHORUS</b>         |                   |                 |                |                   |
| LAKE MURPHY                    | 62 ( 2000)        | 7 ( 226)        | 3 ( 97)        | 62 ( 2000)        |
| NON POINT                      | 5 ( 161)          | 75 ( 2419)      | 13 ( 419)      | 18 ( 581)         |
| POINT                          | 130 ( 4194)       | 19 ( 613)       | 16 ( 516)      | 234 ( 7548)       |
| TOTAL                          | 197 ( 6355)       |                 |                | 314 ( 10129)      |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                 |                |                   |
| LAKE MURPHY                    | 4095 ( 132097)    | 469 ( 15129)    | 319 ( 10290)   | 4095 ( 132097)    |
| NON POINT                      | 134 ( 4323)       | 279 ( 9000)     | 116 ( 3742)    | 998 ( 32194)      |
| POINT                          | 922 ( 29702)      | 748 ( 24129)    | 435 ( 14032)   | 1461 ( 47129)     |
| TOTAL                          | 5151 ( 166162)    |                 |                | 6554 ( 211420)    |
| <b>AMMONIA NITROGEN</b>        |                   |                 |                |                   |
| LAKE MURPHY                    | 167 ( 5387)       | 12 ( 387)       | 19 ( 613)      | 167 ( 5387)       |
| NON POINT                      | 1 ( 32)           | 477 ( 15367)    | 101 ( 3258)    | 35 ( 1129)        |
| POINT                          | 1169 ( 37750)     | 489 ( 15774)    | 120 ( 3871)    | 1900 ( 61290)     |
| TOTAL                          | 1337 ( 43129)     |                 |                | 2102 ( 67806)     |
| <b>ORGANIC NITROGEN</b>        |                   |                 |                |                   |
| LAKE MURPHY                    | 4098 ( 132194)    | 346 ( 11161)    | 144 ( 5035)    | 4098 ( 132194)    |
| NON POINT                      | 31 ( 1000)        | 155 ( 5000)     | 41 ( 1323)     | 606 ( 19548)      |
| POINT                          | 608 ( 20903)      | 501 ( 16161)    | 225 ( 7258)    | 921 ( 29710)      |
| TOTAL                          | 4777 ( 154097)    |                 |                | 5625 ( 181452)    |
| <b>CHLORIDE</b>                |                   |                 |                |                   |
| LAKE MURPHY                    | 94532 ( 3049419)  | 15901 ( 512935) | 5050 ( 162903) | 94532 ( 3049419)  |
| NON POINT                      | 2044 ( 65935)     | 10923 ( 352355) | 2799 ( 90290)  | 20169 ( 908676)   |
| POINT                          | 162139 ( 5230290) | 26024 ( 865290) | 7849 ( 253193) | 181216 ( 5845677) |
| TOTAL                          | 258715 ( 8345644) |                 |                | 303917 ( 9803772) |
| <b>SILICA</b>                  |                   |                 |                |                   |
| LAKE MURPHY                    | 7832 ( 252645)    | 2039 ( 65774)   | 928 ( 29935)   | 7832 ( 252645)    |
| NON POINT                      | 329 ( 10613)      | 341 ( 11000)    | 88 ( 2839)     | 3509 ( 113193)    |
| POINT                          | 1283 ( 41387)     | 361 ( 11645)    | 1016 ( 32774)  | 1860 ( 60000)     |
| TOTAL                          | 9444 ( 304645)    |                 |                | 13201 ( 425038)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|--------------------------------|-------------------|-----------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                 |                  |                 |                    |
| LAKE MURUM                     | 144 ( 4800)       | 135 ( 4500)     | 192 ( 6400)      | 33 ( 1100)      | 144 ( 4800)        |
| DOWN POINT                     | 82 ( 2733)        | 52 ( 1733)      | 164 ( 5467)      | 24 ( 800)       | 442 ( 14733)       |
| POINT                          | 179 ( 5967)       | 147 ( 6233)     | 356 ( 11867)     | 57 ( 1900)      | 419 ( 13967)       |
| TOTAL                          | 405 ( 13500)      |                 |                  |                 | 1005 ( 33500)      |
| <b>ORTHO PHOSPHORUS</b>        |                   |                 |                  |                 |                    |
| LAKE MURUM                     | 59 ( 1967)        | 37 ( 1233)      | 46 ( 1533)       | 10 ( 333)       | 59 ( 1967)         |
| DOWN POINT                     | 34 ( 1133)        | 20 ( 667)       | 82 ( 2733)       | 12 ( 400)       | 127 ( 4232)        |
| POINT                          | 126 ( 4200)       | 63 ( 2100)      | 128 ( 4266)      | 22 ( 733)       | 246 ( 8200)        |
| TOTAL                          | 219 ( 7300)       |                 |                  |                 | 432 ( 14399)       |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                 |                  |                 |                    |
| LAKE MURUM                     | 3907 ( 130233)    | 2127 ( 70900)   | 2367 ( 78900)    | 705 ( 23500)    | 3907 ( 130233)     |
| DOWN POINT                     | 1523 ( 48100)     | 198 ( 6600)     | 276 ( 9200)      | 112 ( 3733)     | 6522 ( 217400)     |
| POINT                          | 913 ( 30433)      | 2325 ( 77500)   | 2693 ( 88100)    | 817 ( 27233)    | 1499 ( 49966)      |
| TOTAL                          | 6143 ( 204766)    |                 |                  |                 | 11928 ( 397599)    |
| <b>AMMONIA NITROGEN</b>        |                   |                 |                  |                 |                    |
| LAKE MURUM                     | 159 ( 5300)       | 39 ( 1300)      | 81 ( 2700)       | 22 ( 733)       | 159 ( 5300)        |
| DOWN POINT                     | 16 ( 533)         | 265 ( 8833)     | 471 ( 15700)     | 114 ( 3800)     | 158 ( 5266)        |
| POINT                          | 1186 ( 39533)     | 304 ( 10133)    | 552 ( 18400)     | 136 ( 4533)     | 2036 ( 67866)      |
| TOTAL                          | 1361 ( 45366)     |                 |                  |                 | 2353 ( 78432)      |
| <b>ORGANIC NITROGEN</b>        |                   |                 |                  |                 |                    |
| LAKE MURUM                     | 3909 ( 130300)    | 587 ( 19567)    | 895 ( 29833)     | 241 ( 8033)     | 3909 ( 130300)     |
| DOWN POINT                     | 322 ( 10733)      | 78 ( 2600)      | 153 ( 5100)      | 39 ( 1300)      | 2045 ( 68166)      |
| POINT                          | 685 ( 21500)      | 665 ( 22167)    | 1048 ( 34933)    | 280 ( 9333)     | 915 ( 30500)       |
| TOTAL                          | 4876 ( 162533)    |                 |                  |                 | 6869 ( 228466)     |
| <b>CHLORIDE</b>                |                   |                 |                  |                 |                    |
| LAKE MURUM                     | 90176 ( 3005867)  | 20576 ( 685867) | 27794 ( 926633)  | 7464 ( 248800)  | 90176 ( 3005867)   |
| DOWN POINT                     | 17420 ( 580667)   | 5408 ( 180267)  | 10571 ( 352367)  | 2709 ( 90300)   | 73259 ( 2441967)   |
| POINT                          | 161845 ( 5348833) | 25984 ( 866134) | 38370 ( 1279000) | 10173 ( 339100) | 180533 ( 6017767)  |
| TOTAL                          | 269441 ( 8961367) |                 |                  |                 | 343968 ( 11465601) |
| <b>SILICA</b>                  |                   |                 |                  |                 |                    |
| LAKE MURUM                     | 7471 ( 249033)    | 3371 ( 112367)  | 4266 ( 142200)   | 1227 ( 40900)   | 7471 ( 249033)     |
| DOWN POINT                     | 1711 ( 57033)     | 168 ( 5600)     | 330 ( 11000)     | 85 ( 2833)      | 18575 ( 625500)    |
| POINT                          | 1303 ( 43433)     | 3539 ( 117967)  | 4596 ( 153200)   | 1312 ( 43733)   | 1686 ( 62866)      |
| TOTAL                          | 10485 ( 349409)   |                 |                  |                 | 19932 ( 664399)    |

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LAKE ERIE NUTRIENT LOADS 1970-1980(U) CORPS OF  
ENGINEERS BUFFALO NY BUFFALO DISTRICT  
S M YAKSICH ET AL. SEP 82

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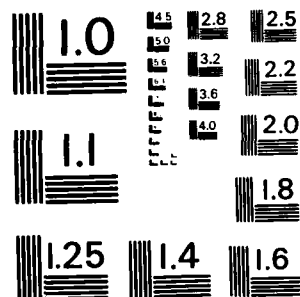
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

BASIN LOADINGS IN MEIPIC TONS PER MONTH FOR DECEMBER, 1979  
(AVE DAILY LOADS IN KG/DAY)

|                                | OFF/ST. CLW BASIN | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|--------------------------------|-------------------|------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                  |                  |                 |                    |
| LAKE MURUM                     | 148 ( 4774)       | 343 ( 12355)     | 477 ( 15387)     | 132 ( 4258)     | 148 ( 4774)        |
| WOM POINT                      | 176 ( 5677)       | 55 ( 1774)       | 180 ( 5806)      | 25 ( 806)       | 1168 ( 37677)      |
| POINT                          | 186 ( 6000)       | 438 ( 14129)     | 657 ( 21193)     | 157 ( 5064)     | 486 ( 14386)       |
| TOTAL                          | 510 ( 16451)      |                  |                  |                 | 1762 ( 56837)      |
| <b>NITRO PHOSPHORUS</b>        |                   |                  |                  |                 |                    |
| LAKE MURUM                     | 60 ( 1935)        | 104 ( 3355)      | 80 ( 2581)       | 27 ( 871)       | 60 ( 1935)         |
| WOM POINT                      | 74 ( 2387)        | 27 ( 871)        | 45 ( 2742)       | 13 ( 419)       | 285 ( 9194)        |
| POINT                          | 131 ( 4226)       | 131 ( 4226)      | 165 ( 5323)      | 40 ( 1290)      | 256 ( 8258)        |
| TOTAL                          | 265 ( 8548)       |                  |                  |                 | 601 ( 19367)       |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                  |                  |                 |                    |
| LAKE MURUM                     | 4017 ( 129581)    | 4889 ( 16935)    | 3660 ( 118065)   | 1313 ( 42355)   | 4017 ( 129581)     |
| WOM POINT                      | 2563 ( 82677)     | 204 ( 6581)      | 245 ( 9194)      | 116 ( 3742)     | 17525 ( 404032)    |
| POINT                          | 951 ( 30677)      | 5193 ( 167516)   | 3945 ( 127259)   | 1429 ( 46097)   | 1556 ( 50194)      |
| TOTAL                          | 7531 ( 242935)    |                  |                  |                 | 18098 ( 583807)    |
| <b>AMMONIA NITROGEN</b>        |                   |                  |                  |                 |                    |
| LAKE MURUM                     | 164 ( 5290)       | 204 ( 6484)      | 112 ( 3613)      | 42 ( 1355)      | 164 ( 5290)        |
| WOM POINT                      | 66 ( 2124)        | 204 ( 6484)      | 489 ( 15774)     | 134 ( 4323)     | 514 ( 16581)       |
| POINT                          | 1261 ( 40677)     | 548 ( 18968)     | 601 ( 19387)     | 176 ( 5678)     | 2178 ( 70258)      |
| TOTAL                          | 1491 ( 48096)     |                  |                  |                 | 2856 ( 92129)      |
| <b>ORGANIC NITROGEN</b>        |                   |                  |                  |                 |                    |
| LAKE MURUM                     | 4020 ( 129677)    | 1435 ( 46290)    | 2055 ( 66290)    | 518 ( 16710)    | 4020 ( 129677)     |
| WOM POINT                      | 726 ( 23484)      | 82 ( 2645)       | 160 ( 5161)      | 41 ( 1323)      | 4736 ( 152774)     |
| POINT                          | 671 ( 21645)      | 1517 ( 48935)    | 2215 ( 71451)    | 559 ( 18033)    | 954 ( 30774)       |
| TOTAL                          | 5419 ( 174806)    |                  |                  |                 | 9710 ( 313225)     |
| <b>CHLORINE</b>                |                   |                  |                  |                 |                    |
| LAKE MURUM                     | 42732 ( 2991355)  | 38401 ( 1238742) | 43892 ( 1415871) | 12341 ( 398097) | 92732 ( 2991355)   |
| WOM POINT                      | 28065 ( 905323)   | 5587 ( 180226)   | 10923 ( 352352)  | 2799 ( 90290)   | 122609 ( 3958033)  |
| POINT                          | 167240 ( 5398839) | 43988 ( 1418968) | 54815 ( 1768226) | 15140 ( 488387) | 186589 ( 6017718)  |
| TOTAL                          | 284037 ( 9291517) |                  |                  |                 | 401980 ( 12967098) |
| <b>SILICA</b>                  |                   |                  |                  |                 |                    |
| LAKE MURUM                     | 7682 ( 247806)    | 6963 ( 224613)   | 6950 ( 224194)   | 2361 ( 76161)   | 7682 ( 247806)     |
| WOM POINT                      | 4220 ( 136129)    | 174 ( 5613)      | 341 ( 11000)     | 88 ( 2839)      | 20494 ( 661097)    |
| POINT                          | 1346 ( 43419)     | 7117 ( 230226)   | 7291 ( 235194)   | 2449 ( 79000)   | 1949 ( 62871)      |
| TOTAL                          | 13248 ( 427354)   |                  |                  |                 | 30125 ( 971774)    |

**Basin Loadings in Metric Tons per Month for January, 1980**  
(AVE Daily Loads in kg/day)

|                                | UFF/ST. CLR BASIN | WESTERN BASIN    | CENTRAL BASIN    | EASTERN BASIN   | TOTAL             |
|--------------------------------|-------------------|------------------|------------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                  |                  |                 |                   |
| LAKE MUPUN                     | 153 ( 4935)       | 100 ( 3226)      | 110 ( 3508)      | 51 ( 1645)      | 153 ( 4935)       |
| NO. POINT                      | 73 ( 2355)        | 54 ( 1742)       | 135 ( 4355)      | 25 ( 806)       | 334 ( 10774)      |
| POINT                          | 176 ( 5677)       | 154 ( 4968)      | 245 ( 7903)      | 76 ( 2451)      | 390 ( 12580)      |
| TOTAL                          | 402 ( 12967)      |                  |                  |                 | 877 ( 28269)      |
| <b>ORTHO PHOSPHORUS</b>        |                   |                  |                  |                 |                   |
| LAKE MUPUN                     | 61 ( 1968)        | 53 ( 1710)       | 30 ( 968)        | 15 ( 484)       | 61 ( 1968)        |
| NO. POINT                      | 24 ( 935)         | 27 ( 871)        | 66 ( 2129)       | 12 ( 387)       | 127 ( 4097)       |
| POINT                          | 133 ( 4290)       | 40 ( 1251)       | 96 ( 3097)       | 27 ( 871)       | 238 ( 7677)       |
| TOTAL                          | 223 ( 7193)       |                  |                  |                 | 476 ( 13742)      |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                  |                  |                 |                   |
| LAKE MUPUN                     | 404 ( 130452)     | 1712 ( 55226)    | 1413 ( 45581)    | 923 ( 29774)    | 404 ( 130452)     |
| NO. POINT                      | 1359 ( 43839)     | 220 ( 7097)      | 310 ( 1000)      | 134 ( 4323)     | 5407 ( 174820)    |
| POINT                          | 948 ( 30581)      | 1932 ( 6323)     | 1723 ( 55581)    | 1057 ( 34097)   | 1612 ( 52001)     |
| TOTAL                          | 6351 ( 208972)    |                  |                  |                 | 11063 ( 356873)   |
| <b>AMMONIA NITROGEN</b>        |                   |                  |                  |                 |                   |
| LAKE MUPUN                     | 164 ( 5290)       | 153 ( 4935)      | 23 ( 742)        | 21 ( 677)       | 164 ( 5290)       |
| NO. POINT                      | 8 ( 258)          | 305 ( 9839)      | 527 ( 17000)     | 142 ( 4581)     | 285 ( 9012)       |
| POINT                          | 1248 ( 40256)     | 458 ( 14774)     | 550 ( 17742)     | 163 ( 5258)     | 2222 ( 71678)     |
| TOTAL                          | 1420 ( 45896)     |                  |                  |                 | 2591 ( 83560)     |
| <b>ORGANIC NITROGEN</b>        |                   |                  |                  |                 |                   |
| LAKE MUPUN                     | 4003 ( 129129)    | 513 ( 16508)     | 625 ( 20161)     | 275 ( 8871)     | 4003 ( 129129)    |
| NO. POINT                      | 238 ( 7677)       | 88 ( 2839)       | 166 ( 5355)      | 48 ( 1548)      | 1651 ( 53257)     |
| POINT                          | 665 ( 21452)      | 601 ( 19387)     | 791 ( 25516)     | 323 ( 10419)    | 967 ( 31194)      |
| TOTAL                          | 4906 ( 154258)    |                  |                  |                 | 6621 ( 213560)    |
| <b>CHLORIDE</b>                |                   |                  |                  |                 |                   |
| LAKE MUPUN                     | 89623 ( 2891065)  | 26239 ( 846819)  | 21922 ( 707161)  | 9047 ( 291839)  | 89623 ( 2891065)  |
| NO. POINT                      | 16534 ( 53355)    | 5996 ( 193419)   | 11399 ( 367710)  | 3249 ( 108806)  | 73742 ( 2378774)  |
| POINT                          | 10481 ( 348161)   | 32235 ( 1059838) | 33371 ( 1074671) | 12296 ( 396645) | 129025 ( 4162096) |
| TOTAL                          | 210538 ( 6920581) |                  |                  |                 | 292390 ( 9431935) |
| <b>SILICA</b>                  |                   |                  |                  |                 |                   |
| LAKE MUPUN                     | 7130 ( 230000)    | 3281 ( 105839)   | 2998 ( 96710)    | 1355 ( 43710)   | 7130 ( 230000)    |
| NO. POINT                      | 1644 ( 53032)     | 197 ( 6032)      | 356 ( 11484)     | 101 ( 3258)     | 9278 ( 299291)    |
| POINT                          | 1304 ( 43355)     | 3468 ( 111871)   | 3354 ( 108194)   | 1456 ( 46968)   | 1948 ( 64129)     |
| TOTAL                          | 10118 ( 326387)   |                  |                  |                 | 14396 ( 593420)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR FEBRUARY, 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                 | UPST. CLW BASIN   | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURUM                      | 140 ( 4828)       | 59 ( 2034)      | 105 ( 3621)     | 14 ( 483)      | 140 ( 230000)     |
| W.M. POINT                      | 24 ( 428)         | 50 ( 1724)      | 126 ( 4345)     | 23 ( 793)      | 202 ( 6966)       |
| POINT                           | 165 ( 5690)       | 109 ( 3759)     | 231 ( 7966)     | 37 ( 1276)     | 364 ( 12552)      |
| TOTAL                           | 329 ( 11545)      |                 |                 |                | 706 ( 24346)      |
| <b>NITRO PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURUM                      | 56 ( 1931)        | 25 ( 862)       | 15 ( 448)       | 2 ( 69)        | 56 ( 230000)      |
| W.M. POINT                      | 8 ( 276)          | 25 ( 862)       | 61 ( 2103)      | 12 ( 414)      | 88 ( 1655)        |
| POINT                           | 124 ( 4276)       | 50 ( 1724)      | 74 ( 2552)      | 14 ( 483)      | 222 ( 7655)       |
| TOTAL                           | 188 ( 6483)       |                 |                 |                | 326 ( 11242)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                |                   |
| LAKE MURUM                      | 3708 ( 127842)    | 1179 ( 40653)   | 983 ( 32517)    | 149 ( 5138)    | 3708 ( 230000)    |
| W.M. POINT                      | 256 ( 8428)       | 206 ( 7103)     | 291 ( 10034)    | 125 ( 4310)    | 2527 ( 87138)     |
| POINT                           | 887 ( 30546)      | 1365 ( 47759)   | 1234 ( 42552)   | 274 ( 9448)    | 1509 ( 52033)     |
| TOTAL                           | 4851 ( 167276)    |                 |                 |                | 7744 ( 267035)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURUM                      | 151 ( 5207)       | 32 ( 1103)      | 6 ( 207)        | 8 ( 276)       | 151 ( 230000)     |
| W.M. POINT                      | 3 ( 103)          | 265 ( 9138)     | 492 ( 16966)    | 102 ( 3517)    | 29 ( 1609)        |
| POINT                           | 1131 ( 39000)     | 297 ( 10241)    | 498 ( 17172)    | 110 ( 3793)    | 1990 ( 68621)     |
| TOTAL                           | 1245 ( 44310)     |                 |                 |                | 2190 ( 75516)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURUM                      | 3670 ( 126552)    | 370 ( 12759)    | 539 ( 18586)    | 100 ( 3448)    | 3670 ( 230000)    |
| W.M. POINT                      | 61 ( 2103)        | 79 ( 2724)      | 155 ( 5345)     | 45 ( 1552)     | 1070 ( 36896)     |
| POINT                           | 622 ( 21448)      | 449 ( 15683)    | 694 ( 23931)    | 145 ( 5000)    | 901 ( 31069)      |
| TOTAL                           | 4353 ( 150103)    |                 |                 |                | 5641 ( 194517)    |
| <b>CHLORIDE</b>                 |                   |                 |                 |                |                   |
| LAKE MURUM                      | 82172 ( 2833517)  | 15198 ( 524069) | 15513 ( 534931) | 3113 ( 107385) | 82172 ( 230000)   |
| W.M. POINT                      | 4261 ( 146931)    | 5610 ( 193448)  | 10664 ( 367724) | 3040 ( 104828) | 38085 ( 1313276)  |
| POINT                           | 101894 ( 3513546) | 20808 ( 717517) | 26177 ( 902655) | 6153 ( 212172) | 121208 ( 4179586) |
| TOTAL                           | 108327 ( 6094034) |                 |                 |                | 241465 ( 8326378) |
| <b>SILICA</b>                   |                   |                 |                 |                |                   |
| LAKE MURUM                      | 6525 ( 225000)    | 2043 ( 70448)   | 2223 ( 76655)   | 403 ( 13897)   | 6525 ( 230000)    |
| W.M. POINT                      | 478 ( 16483)      | 174 ( 6000)     | 333 ( 11483)    | 95 ( 3276)     | 5147 ( 177483)    |
| POINT                           | 1253 ( 43207)     | 2217 ( 76448)   | 2556 ( 88138)   | 498 ( 17172)   | 1855 ( 63966)     |
| TOTAL                           | 8256 ( 284690)    |                 |                 |                | 13527 ( 466448)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MARCH , 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WEST BASIN        | CENTRAL BASIN     | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|-------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                   |                 |                    |
| LAKE MURUM                      | 149 ( 4006)       | 865 ( 27903)      | 177 ( 5710)     | 149 ( 4006)        |
| MON. POINT                      | 252 ( 8129)       | 135 ( 4355)       | 25 ( 806)       | 1991 ( 60226)      |
| POINT                           | 176 ( 5677)       | 100 ( 32258)      | 202 ( 6516)     | 391 ( 12612)       |
| TOTAL                           | 577 ( 18612)      | 1000 ( 32258)     | 202 ( 6516)     | 2531 ( 81644)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                   |                 |                    |
| LAKE MURUM                      | 60 ( 1935)        | 117 ( 3774)       | 28 ( 903)       | 60 ( 1935)         |
| MON. POINT                      | 94 ( 3194)        | 67 ( 2161)        | 12 ( 387)       | 427 ( 13774)       |
| POINT                           | 133 ( 4290)       | 184 ( 5935)       | 40 ( 1290)      | 239 ( 7709)        |
| TOTAL                           | 292 ( 9419)       | 369 ( 11709)      | 80 ( 2493)      | 726 ( 23418)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                   |                 |                    |
| LAKE MURUM                      | 3964 ( 127871)    | 5316 ( 171484)    | 1327 ( 42806)   | 3964 ( 127871)     |
| MON. POINT                      | 3261 ( 105194)    | 510 ( 16000)      | 134 ( 4323)     | 18652 ( 601678)    |
| POINT                           | 1003 ( 32355)     | 5626 ( 181484)    | 1461 ( 47129)   | 1667 ( 53775)      |
| TOTAL                           | 4228 ( 137820)    | 11242 ( 362968)   | 2922 ( 94265)   | 24283 ( 783326)    |
| <b>AMMONIA NITROGEN</b>         |                   |                   |                 |                    |
| LAKE MURUM                      | 161 ( 5194)       | 168 ( 5419)       | 44 ( 1419)      | 161 ( 5194)        |
| MON. POINT                      | 121 ( 3903)       | 538 ( 17355)      | 153 ( 4935)     | 944 ( 30451)       |
| POINT                           | 1307 ( 42161)     | 706 ( 22774)      | 197 ( 6354)     | 2316 ( 74709)      |
| TOTAL                           | 1589 ( 51256)     | 1312 ( 42548)     | 254 ( 8193)     | 3421 ( 110354)     |
| <b>ORGANIC NITROGEN</b>         |                   |                   |                 |                    |
| LAKE MURUM                      | 3923 ( 126548)    | 3037 ( 97468)     | 691 ( 22290)    | 3923 ( 126548)     |
| MON. POINT                      | 490 ( 15435)      | 166 ( 5355)       | 48 ( 1588)      | 7058 ( 227677)     |
| POINT                           | 720 ( 23226)      | 3203 ( 103323)    | 739 ( 23838)    | 1024 ( 33032)      |
| TOTAL                           | 5633 ( 181709)    | 6306 ( 205669)    | 1478 ( 47716)   | 12005 ( 387257)    |
| <b>CHLORIDE</b>                 |                   |                   |                 |                    |
| LAKE MURUM                      | 87839 ( 2833516)  | 52343 ( 1689129)  | 11209 ( 361581) | 87839 ( 2833516)   |
| MON. POINT                      | 51839 ( 1736782)  | 11394 ( 367710)   | 3249 ( 104806)  | 179315 ( 5784353)  |
| POINT                           | 110848 ( 3576387) | 63762 ( 2056639)  | 14458 ( 466387) | 131512 ( 4242322)  |
| TOTAL                           | 252526 ( 8146685) | 127599 ( 4102148) | 19916 ( 632374) | 398666 ( 12860193) |
| <b>SILICA</b>                   |                   |                   |                 |                    |
| LAKE MURUM                      | 6975 ( 225000)    | 8435 ( 272097)    | 2323 ( 74935)   | 6975 ( 225000)     |
| MON. POINT                      | 5757 ( 185710)    | 356 ( 11444)      | 101 ( 3258)     | 29213 ( 942353)    |
| POINT                           | 1373 ( 44290)     | 1791 ( 57351)     | 2424 ( 78193)   | 2017 ( 65064)      |
| TOTAL                           | 14105 ( 455000)   | 10791 ( 343992)   | 2628 ( 83526)   | 38205 ( 1232419)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR APRIL, 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     | CENTRAL BASIN    | EASTERN BASIN   | TOTAL              |
|---------------------------------|-------------------|------------------|-----------------|--------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                  |                 |                    |
| LAKE MURON                      | 185 ( 8833)       | 403 ( 13433)     | 93 ( 3100)      | 145 ( 4833)        |
| MUN. POINT                      | 226 ( 7583)       | 131 ( 4367)      | 24 ( 800)       | 119 ( 3963)        |
| POINT                           | 171 ( 5700)       | 53 ( 1767)       | 24 ( 800)       | 173 ( 5710)        |
| TOTAL                           | 542 ( 18066)      | 598 ( 19934)     | 117 ( 3900)     | 1713 ( 57100)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                  |                 |                    |
| LAKE MURON                      | 58 ( 1933)        | 26 ( 867)        | 26 ( 867)       | 58 ( 1933)         |
| MUN. POINT                      | 86 ( 2867)        | 82 ( 2733)       | 26 ( 867)       | 332 ( 11067)       |
| POINT                           | 128 ( 4267)       | 45 ( 1517)       | 12 ( 400)       | 231 ( 7781)        |
| TOTAL                           | 272 ( 9067)       | 147 ( 4900)      | 38 ( 1267)      | 621 ( 20701)       |
| <b>NITRATE-NITRICE NITROGEN</b> |                   |                  |                 |                    |
| LAKE MURON                      | 3856 ( 128533)    | 3450 ( 115000)   | 1599 ( 53400)   | 3856 ( 128533)     |
| MUN. POINT                      | 3520 ( 117333)    | 301 ( 10033)     | 130 ( 4333)     | 14871 ( 495700)    |
| POINT                           | 999 ( 33300)      | 3751 ( 125033)   | 1729 ( 57633)   | 1643 ( 54766)      |
| TOTAL                           | 4375 ( 279166)    | 6515 ( 217167)   | 1729 ( 57633)   | 20370 ( 678999)    |
| <b>AMMONIA NITROGEN</b>         |                   |                  |                 |                    |
| LAKE MURON                      | 157 ( 5233)       | 68 ( 2267)       | 36 ( 1200)      | 157 ( 5233)        |
| MUN. POINT                      | 82 ( 2733)        | 517 ( 17233)     | 189 ( 6367)     | 630 ( 21267)       |
| POINT                           | 1263 ( 42100)     | 585 ( 19500)     | 189 ( 6367)     | 2237 ( 74567)      |
| TOTAL                           | 1502 ( 50666)     | 760 ( 25334)     | 195 ( 6167)     | 3032 ( 101067)     |
| <b>ORGANIC NITROGEN</b>         |                   |                  |                 |                    |
| LAKE MURON                      | 3816 ( 127200)    | 1798 ( 59933)    | 476 ( 15867)    | 3816 ( 127200)     |
| MUN. POINT                      | 904 ( 30300)      | 160 ( 5333)      | 46 ( 1533)      | 4697 ( 156567)     |
| POINT                           | 713 ( 23767)      | 1958 ( 65266)    | 522 ( 17400)    | 1006 ( 33333)      |
| TOTAL                           | 5433 ( 181267)    | 1958 ( 65266)    | 522 ( 17400)    | 9519 ( 317300)     |
| <b>CHLORINE</b>                 |                   |                  |                 |                    |
| LAKE MURON                      | 85438 ( 2847933)  | 43006 ( 1433533) | 11588 ( 386267) | 85438 ( 2847933)   |
| MUN. POINT                      | 71000 ( 2366667)  | 11032 ( 367733)  | 3144 ( 104800)  | 190606 ( 6353334)  |
| POINT                           | 107291 ( 3576367) | 5803 ( 193433)   | 14732 ( 491067) | 127270 ( 4242333)  |
| TOTAL                           | 263729 ( 8790967) | 70815 ( 2360500) | 14732 ( 491067) | 403314 ( 13443000) |
| <b>SILICA</b>                   |                   |                  |                 |                    |
| LAKE MURON                      | 6780 ( 226000)    | 6171 ( 205700)   | 2099 ( 69967)   | 6780 ( 226000)     |
| MUN. POINT                      | 5468 ( 182267)    | 345 ( 11500)     | 98 ( 3267)      | 23723 ( 790767)    |
| POINT                           | 1324 ( 44300)     | 6516 ( 217200)   | 2197 ( 73234)   | 1953 ( 65100)      |
| TOTAL                           | 13577 ( 452567)   | 10166 ( 338866)  | 2197 ( 73234)   | 32456 ( 1081067)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR MAY , 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                | DRY/ST. CLW BASIN | WESTERN BASIN    | CENTRAL BASIN   | EASTERN BASIN   | TOTAL             |
|--------------------------------|-------------------|------------------|-----------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                  |                 |                 |                   |
| LAKE MURROW                    | 155 ( 5000)       | 103 ( 3323)      | 40 ( 1290)      | 28 ( 903)       | 155 ( 5000)       |
| MON. POINT                     | 55 ( 1774)        | 55 ( 1774)       | 132 ( 4258)     | 25 ( 806)       | 226 ( 7290)       |
| POINT                          | 176 ( 5677)       | 158 ( 5097)      | 172 ( 5548)     | 53 ( 1709)      | 386 ( 12515)      |
| TOTAL                          | 386 ( 12451)      |                  |                 |                 | 769 ( 24805)      |
| <b>ORTHO PHOSPHORUS</b>        |                   |                  |                 |                 |                   |
| LAKE MURROW                    | 62 ( 2000)        | 49 ( 1581)       | 13 ( 419)       | 11 ( 355)       | 62 ( 2000)        |
| MON. POINT                     | 22 ( 710)         | 27 ( 871)        | 63 ( 2032)      | 12 ( 387)       | 95 ( 3065)        |
| POINT                          | 133 ( 4290)       | 76 ( 2452)       | 76 ( 2451)      | 23 ( 742)       | 235 ( 7580)       |
| TOTAL                          | 217 ( 7000)       |                  |                 |                 | 392 ( 12645)      |
| <b>NITRATE-NITRIF NITROGEN</b> |                   |                  |                 |                 |                   |
| LAKE MURROW                    | 4104 ( 132387)    | 1829 ( 59000)    | 776 ( 25032)    | 616 ( 19871)    | 4104 ( 132387)    |
| MON. POINT                     | 894 ( 28339)      | 220 ( 7097)      | 310 ( 10000)    | 134 ( 4323)     | 4115 ( 132742)    |
| POINT                          | 964 ( 31097)      | 2049 ( 66097)    | 1046 ( 35032)   | 750 ( 24194)    | 1628 ( 52517)     |
| TOTAL                          | 5962 ( 192323)    |                  |                 |                 | 9447 ( 317646)    |
| <b>AMMONIA NITROGEN</b>        |                   |                  |                 |                 |                   |
| LAKE MURROW                    | 167 ( 5387)       | 126 ( 4065)      | 12 ( 387)       | 13 ( 419)       | 167 ( 5387)       |
| MON. POINT                     | 7 ( 226)          | 315 ( 10161)     | 519 ( 16742)    | 132 ( 4258)     | 158 ( 5097)       |
| POINT                          | 1239 ( 39877)     | 441 ( 14226)     | 531 ( 17129)    | 145 ( 4677)     | 2196 ( 70830)     |
| TOTAL                          | 1404 ( 45290)     |                  |                 |                 | 2521 ( 81322)     |
| <b>ORGANIC NITROGEN</b>        |                   |                  |                 |                 |                   |
| LAKE MURROW                    | 4063 ( 131065)    | 516 ( 16645)     | 305 ( 9839)     | 160 ( 5161)     | 4063 ( 131065)    |
| MON. POINT                     | 205 ( 6413)       | 90 ( 2903)       | 166 ( 5355)     | 44 ( 1548)      | 1186 ( 38258)     |
| POINT                          | 642 ( 22000)      | 606 ( 19548)     | 471 ( 15194)    | 208 ( 6709)     | 986 ( 31806)      |
| TOTAL                          | 4950 ( 159678)    |                  |                 |                 | 6235 ( 201129)    |
| <b>CHLORIDE</b>                |                   |                  |                 |                 |                   |
| LAKE MURROW                    | 90960 ( 2934194)  | 27182 ( 876039)  | 11580 ( 373548) | 7242 ( 233613)  | 90960 ( 2934194)  |
| MON. POINT                     | 21252 ( 685548)   | 5996 ( 193419)   | 11599 ( 367710) | 3249 ( 104806)  | 67256 ( 2169548)  |
| POINT                          | 110864 ( 3574387) | 33176 ( 1070258) | 22479 ( 741258) | 10491 ( 338419) | 131512 ( 4242322) |
| TOTAL                          | 223080 ( 7196129) |                  |                 |                 | 289728 ( 9346064) |
| <b>SILICA</b>                  |                   |                  |                 |                 |                   |
| LAKE MURROW                    | 7223 ( 233000)    | 3330 ( 107419)   | 1554 ( 50129)   | 687 ( 22613)    | 7223 ( 233000)    |
| MON. POINT                     | 1546 ( 45032)     | 147 ( 4032)      | 356 ( 11044)    | 101 ( 3258)     | 7167 ( 231193)    |
| POINT                          | 1373 ( 44290)     | 3517 ( 113451)   | 1910 ( 61613)   | 448 ( 14871)    | 2017 ( 65064)     |
| TOTAL                          | 9492 ( 127322)    |                  |                 |                 | 14407 ( 529257)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR JUNE , 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WESTERN BASIN     | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                |                   |
| LAKE MURUM                      | 153 ( 5100)       |                 |                | 153 ( 5100)       |
| MUR. POINT                      | 43 ( 1433)        | 141 ( 4700)     | 16 ( 533)      | 539 ( 17966)      |
| POINT                           | 171 ( 5700)       | 53 ( 1767)      | 24 ( 800)      | 376 ( 12534)      |
| TOTAL                           | 367 ( 12233)      | 269 ( 8967)     | 40 ( 1333)     | 1068 ( 35600)     |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                |                   |
| LAKE MURUM                      | 61 ( 2033)        |                 |                | 61 ( 2033)        |
| MUR. POINT                      | 17 ( 547)         | 20 ( 667)       | 5 ( 167)       | 143 ( 4768)       |
| POINT                           | 126 ( 4247)       | 63 ( 2100)      | 12 ( 400)      | 229 ( 7634)       |
| TOTAL                           | 204 ( 6867)       | 83 ( 2767)      | 17 ( 567)      | 433 ( 14435)      |
| <b>NITRATE-NITRITE-NITROGEN</b> |                   |                 |                |                   |
| LAKE MURUM                      | 4050 ( 135000)    | 1523 ( 50767)   | 319 ( 10633)   | 4050 ( 135000)    |
| MUR. POINT                      | 870 ( 15647)      | 301 ( 10033)    | 130 ( 433)     | 6346 ( 211534)    |
| POINT                           | 953 ( 31747)      | 1624 ( 60800)   | 449 ( 14966)   | 1597 ( 53233)     |
| TOTAL                           | 5473 ( 182434)    | 1624 ( 60800)   | 449 ( 14966)   | 11993 ( 390767)   |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                |                   |
| LAKE MURUM                      | 164 ( 5447)       |                 |                | 164 ( 5467)       |
| MUR. POINT                      | 8 ( 247)          | 30 ( 1000)      | 10 ( 333)      | 366 ( 12200)      |
| POINT                           | 1183 ( 39433)     | 504 ( 16800)    | 116 ( 3867)    | 2111 ( 70367)     |
| TOTAL                           | 1355 ( 45147)     | 534 ( 17800)    | 126 ( 4200)    | 2641 ( 88034)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                |                   |
| LAKE MURUM                      | 4009 ( 133633)    | 579 ( 19300)    | 114 ( 3800)    | 4009 ( 133633)    |
| MUR. POINT                      | 110 ( 3667)       | 160 ( 5333)     | 46 ( 1533)     | 2056 ( 68534)     |
| POINT                           | 674 ( 22600)      | 739 ( 24633)    | 160 ( 5333)    | 971 ( 32366)      |
| TOTAL                           | 4797 ( 159900)    | 1340 ( 44667)   | 160 ( 5333)    | 7036 ( 234533)    |
| <b>CHLORIDE</b>                 |                   |                 |                |                   |
| LAKE MURUM                      | 89752 ( 2991733)  | 15999 ( 533300) | 4818 ( 160600) | 89752 ( 2991733)  |
| MUR. POINT                      | 21820 ( 727333)   | 11032 ( 367733) | 3144 ( 104800) | 77671 ( 2595700)  |
| POINT                           | 107291 ( 3576367) | 27031 ( 901033) | 7962 ( 265400) | 127270 ( 4242333) |
| TOTAL                           | 218663 ( 7295433) | 27031 ( 901033) | 7962 ( 265400) | 294693 ( 9829766) |
| <b>SILICA</b>                   |                   |                 |                |                   |
| LAKE MURUM                      | 7140 ( 238000)    | 2437 ( 81233)   | 691 ( 23033)   | 7140 ( 238000)    |
| MUR. POINT                      | 949 ( 32300)      | 345 ( 11500)    | 98 ( 3267)     | 10510 ( 350333)   |
| POINT                           | 1329 ( 44300)     | 2782 ( 92733)   | 789 ( 26300)   | 1953 ( 65100)     |
| TOTAL                           | 9438 ( 314600)    | 2782 ( 92733)   | 789 ( 26300)   | 19003 ( 653433)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR  
(AVE DAILY LOADS IN KG/DAY) JULY , 1980

|                                 | WESTERN BASIN     | CENTRAL BASIN   | EASTERN BASIN   | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|-------------------|
| <b>NET/ST. CLR BASIN</b>        |                   |                 |                 |                   |
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                   |
| LAKE MURUM                      | 159 ( 5129)       | 49 ( 1581)      | 20 ( 645)       | 159 ( 5129)       |
| NON POINT                       | 33 ( 1065)        | 119 ( 3839)     | 25 ( 806)       | 170 ( 5783)       |
| POINT                           | 176 ( 5677)       | 168 ( 5420)     | 45 ( 1451)      | 373 ( 12032)      |
| TOTAL                           | 368 ( 11871)      | 336 ( 10430)    | 90 ( 2896)      | 710 ( 22904)      |
| <b>ORTHO PHOSPHORUS</b>         |                   |                 |                 |                   |
| LAKE MURUM                      | 64 ( 2065)        | 12 ( 387)       | 4 ( 129)        | 64 ( 2065)        |
| NON POINT                       | 11 ( 355)         | 58 ( 1871)      | 12 ( 387)       | 61 ( 1988)        |
| POINT                           | 133 ( 4200)       | 70 ( 2258)      | 16 ( 516)       | 229 ( 7387)       |
| TOTAL                           | 208 ( 6710)       | 140 ( 4435)     | 32 ( 1000)      | 354 ( 11420)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                   |
| LAKE MURUM                      | 4225 ( 136290)    | 601 ( 19387)    | 223 ( 7194)     | 4225 ( 136290)    |
| NON POINT                       | 442 ( 14258)      | 310 ( 10000)    | 134 ( 4323)     | 2855 ( 92077)     |
| POINT                           | 947 ( 30548)      | 911 ( 29387)    | 357 ( 11517)    | 1611 ( 51968)     |
| TOTAL                           | 5614 ( 181096)    | 1822 ( 58774)   | 714 ( 22828)    | 8691 ( 280355)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                   |
| LAKE MURUM                      | 171 ( 5516)       | 16 ( 516)       | 0 ( 258)        | 171 ( 5516)       |
| NON POINT                       | 7 ( 226)          | 514 ( 16581)    | 117 ( 3774)     | 73 ( 2355)        |
| POINT                           | 1214 ( 39161)     | 530 ( 17097)    | 125 ( 4032)     | 2122 ( 68451)     |
| TOTAL                           | 1392 ( 44003)     | 600 ( 19794)    | 125 ( 4032)     | 2366 ( 76322)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                   |
| LAKE MURUM                      | 4182 ( 134903)    | 248 ( 8000)     | 114 ( 3677)     | 4182 ( 134903)    |
| NON POINT                       | 111 ( 3581)       | 164 ( 5290)     | 48 ( 1548)      | 946 ( 31161)      |
| POINT                           | 665 ( 21452)      | 412 ( 13290)    | 162 ( 5225)     | 961 ( 31000)      |
| TOTAL                           | 4958 ( 159936)    | 624 ( 20589)    | 224 ( 7450)     | 6109 ( 197064)    |
| <b>CHLORIDE</b>                 |                   |                 |                 |                   |
| LAKE MURUM                      | 93636 ( 3020516)  | 7675 ( 247581)  | 3975 ( 128226)  | 93636 ( 3020516)  |
| NON POINT                       | 6192 ( 199782)    | 11399 ( 367710) | 3249 ( 104806)  | 34772 ( 1121678)  |
| POINT                           | 104005 ( 3480032) | 19074 ( 615291) | 7224 ( 233032)  | 128649 ( 4149967) |
| TOTAL                           | 207833 ( 6708290) | 20474 ( 668872) | 11448 ( 374064) | 257057 ( 8292161) |
| <b>SILICA</b>                   |                   |                 |                 |                   |
| LAKE MURUM                      | 7440 ( 240000)    | 1317 ( 42484)   | 529 ( 17065)    | 7440 ( 240000)    |
| NON POINT                       | 792 ( 25568)      | 356 ( 11484)    | 101 ( 3258)     | 5140 ( 165807)    |
| POINT                           | 1338 ( 43161)     | 1673 ( 53968)   | 630 ( 20323)    | 1982 ( 63935)     |
| TOTAL                           | 9570 ( 308769)    | 2044 ( 66936)   | 1160 ( 37646)   | 14562 ( 469782)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR AUGUST, 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                 | UPR/ST. CLP BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 154 ( 5097)       | 105 ( 3307)     | 93 ( 3000)      | 20 ( 645)      | 158 ( 5097)       |
| NOV. POINT                      | 38 ( 1226)        | 54 ( 1742)      | 134 ( 4323)     | 25 ( 806)      | 256 ( 8258)       |
| POINT                           | 176 ( 5677)       | 159 ( 5129)     | 227 ( 7323)     | 45 ( 1451)     | 389 ( 12508)      |
| TOTAL                           | 372 ( 12000)      |                 |                 |                | 803 ( 25903)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                 |                |                   |
| LAKE MURON                      | 63 ( 2032)        | 45 ( 1452)      | 15 ( 484)       | 4 ( 129)       | 63 ( 2032)        |
| NOV. POINT                      | 15 ( 484)         | 27 ( 871)       | 66 ( 2129)      | 12 ( 387)      | 79 ( 2549)        |
| POINT                           | 133 ( 4290)       | 72 ( 2323)      | 81 ( 2613)      | 16 ( 516)      | 233 ( 7677)       |
| TOTAL                           | 211 ( 6806)       |                 |                 |                | 380 ( 12258)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                |                   |
| LAKE MURON                      | 4205 ( 135645)    | 1824 ( 58039)   | 813 ( 26226)    | 248 ( 8000)    | 4205 ( 135645)    |
| NOV. POINT                      | 404 ( 13032)      | 220 ( 7097)     | 310 ( 10000)    | 134 ( 4323)    | 3269 ( 106097)    |
| POINT                           | 972 ( 31355)      | 2044 ( 65936)   | 1123 ( 36226)   | 362 ( 12323)   | 1636 ( 52775)     |
| TOTAL                           | 5581 ( 180032)    |                 |                 |                | 9130 ( 294517)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 171 ( 5516)       | 91 ( 2935)      | 10 ( 323)       | 9 ( 290)       | 171 ( 5516)       |
| NOV. POINT                      | 5 ( 161)          | 301 ( 9710)     | 522 ( 16839)    | 116 ( 3742)    | 115 ( 3709)       |
| POINT                           | 1220 ( 39355)     | 392 ( 12645)    | 532 ( 17162)    | 125 ( 4032)    | 2159 ( 69646)     |
| TOTAL                           | 1396 ( 45032)     |                 |                 |                | 2485 ( 78871)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURON                      | 4162 ( 134258)    | 503 ( 16226)    | 569 ( 18355)    | 127 ( 4097)    | 4162 ( 134258)    |
| NOV. POINT                      | 116 ( 3742)       | 48 ( 1535)      | 166 ( 5355)     | 48 ( 1548)     | 1315 ( 42420)     |
| POINT                           | 889 ( 22226)      | 591 ( 19065)    | 735 ( 23710)    | 175 ( 5645)    | 991 ( 31968)      |
| TOTAL                           | 4967 ( 160226)    |                 |                 |                | 6468 ( 208646)    |
| <b>CHLORINE</b>                 |                   |                 |                 |                |                   |
| LAKE MURON                      | 93190 ( 3006129)  | 23507 ( 758290) | 18730 ( 604194) | 4422 ( 142645) | 93190 ( 3006129)  |
| NOV. POINT                      | 27028 ( 871871)   | 5996 ( 193419)  | 11399 ( 367710) | 3249 ( 104806) | 73687 ( 2377000)  |
| POINT                           | 110868 ( 3576387) | 29503 ( 951709) | 30129 ( 971904) | 7671 ( 247451) | 131512 ( 4242322) |
| TOTAL                           | 231086 ( 7454387) |                 |                 |                | 294389 ( 9625451) |
| <b>SILICA</b>                   |                   |                 |                 |                |                   |
| LAKE MURON                      | 7409 ( 239000)    | 3087 ( 99581)   | 2801 ( 91645)   | 671 ( 21645)   | 7409 ( 239000)    |
| NOV. POINT                      | 982 ( 31677)      | 187 ( 6032)     | 356 ( 11484)    | 101 ( 3258)    | 7581 ( 246588)    |
| POINT                           | 1373 ( 44290)     | 3274 ( 105613)  | 3197 ( 103129)  | 772 ( 24903)   | 2017 ( 65064)     |
| TOTAL                           | 9764 ( 314967)    |                 |                 |                | 17087 ( 548612)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR SEPTEMBER, 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                 | WEST. BASIN       | EASTERN BASIN   | CENTRAL BASIN   | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                   |
| LAKE MURUM                      | 153 ( 5100)       |                 |                 | 153 ( 5100)       |
| NON POINT                       | 30 ( 1000)        |                 |                 | 30 ( 1000)        |
| POINT                           | 171 ( 5700)       | 19 ( 633)       | 17 ( 567)       | 372 ( 12400)      |
| TOTAL                           | 354 ( 11800)      | 72 ( 2400)      | 141 ( 4700)     | 605 ( 20167)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                 |                   |
| LAKE MURUM                      | 61 ( 2033)        |                 |                 | 61 ( 2033)        |
| NON POINT                       | 11 ( 367)         |                 |                 | 11 ( 367)         |
| POINT                           | 128 ( 4267)       | 7 ( 233)        | 6 ( 200)        | 223 ( 7434)       |
| TOTAL                           | 200 ( 6667)       | 33 ( 1100)      | 63 ( 2100)      | 310 ( 10334)      |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                   |
| LAKE MURUM                      | 4069 ( 135633)    |                 |                 | 4069 ( 135633)    |
| NON POINT                       | 310 ( 10333)      |                 |                 | 310 ( 10333)      |
| POINT                           | 932 ( 31067)      | 609 ( 20300)    | 186 ( 6267)     | 1569 ( 52100)     |
| TOTAL                           | 5311 ( 177033)    | 213 ( 7100)     | 294 ( 9800)     | 6970 ( 232333)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                   |
| LAKE MURUM                      | 165 ( 5500)       |                 |                 | 165 ( 5500)       |
| NON POINT                       | 3 ( 100)          |                 |                 | 3 ( 100)          |
| POINT                           | 1176 ( 39200)     | 10 ( 333)       | 7 ( 233)        | 2013 ( 67100)     |
| TOTAL                           | 1344 ( 44500)     | 233 ( 7767)     | 493 ( 16433)    | 2206 ( 73533)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                   |
| LAKE MURUM                      | 4028 ( 134267)    |                 |                 | 4028 ( 134267)    |
| NON POINT                       | 46 ( 1500)        |                 |                 | 46 ( 1500)        |
| POINT                           | 658 ( 21933)      | 241 ( 8033)     | 200 ( 6667)     | 1517 ( 50633)     |
| TOTAL                           | 4732 ( 159000)    | 327 ( 10900)    | 360 ( 12000)    | 5605 ( 186633)    |
| <b>CHLORIDE</b>                 |                   |                 |                 |                   |
| LAKE MURUM                      | 90184 ( 3006133)  |                 |                 | 90184 ( 3006133)  |
| NON POINT                       | 20297 ( 676567)   |                 |                 | 20297 ( 676567)   |
| POINT                           | 107236 ( 3574533) | 13934 ( 464633) | 5456 ( 181867)  | 127130 ( 4237666) |
| TOTAL                           | 217717 ( 7257233) | 5803 ( 193433)  | 16403 ( 546767) | 260814 ( 8693799) |
| <b>SILICA</b>                   |                   |                 |                 |                   |
| LAKE MURUM                      | 7170 ( 239000)    |                 |                 | 7170 ( 239000)    |
| NON POINT                       | 665 ( 22167)      |                 |                 | 665 ( 22167)      |
| POINT                           | 1329 ( 44300)     | 1260 ( 42000)   | 732 ( 24400)    | 3108 ( 103600)    |
| TOTAL                           | 9164 ( 305467)    | 181 ( 6033)     | 345 ( 11500)    | 10313 ( 346967)   |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR OCTOBER, 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                           | WESTERN BASIN                                                                | CENTRAL BASIN                                        | EASTERN BASIN                                      | TOTAL                                                                         |
|-------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------|
| <b>TOTAL PHOSPHORUS</b>                   |                                                                              |                                                      |                                                    |                                                                               |
| LAKE MURUM<br>NON POINT<br>POINT<br>TOTAL | 158 ( 5097)<br>32 ( 1032)<br>176 ( 5677)<br>360 ( 11806)                     | 41 ( 1233)<br>112 ( 3613)<br>153 ( 4736)             | 68 ( 2194)<br>25 ( 806)<br>93 ( 3000)              | 158 ( 5097)<br>142 ( 4541)<br>353 ( 11386)<br>653 ( 21064)                    |
| <b>ORTHOPHOSPHORUS</b>                    |                                                                              |                                                      |                                                    |                                                                               |
| LAKE MURUM<br>NON POINT<br>POINT<br>TOTAL | 63 ( 2032)<br>10 ( 323)<br>133 ( 4290)<br>206 ( 6645)                        | 8 ( 258)<br>53 ( 1710)<br>61 ( 1968)                 | 6 ( 194)<br>12 ( 387)<br>18 ( 581)                 | 63 ( 2032)<br>26 ( 840)<br>216 ( 6968)<br>305 ( 9840)                         |
| <b>NITRAIC-NITRIFIC NITROGEN</b>          |                                                                              |                                                      |                                                    |                                                                               |
| LAKE MURUM<br>NON POINT<br>POINT<br>TOTAL | 4205 ( 135645)<br>417 ( 13452)<br>944 ( 30452)<br>5566 ( 179549)             | 262 ( 8452)<br>291 ( 9387)<br>553 ( 17839)           | 479 ( 15452)<br>134 ( 4323)<br>613 ( 19775)        | 4205 ( 135645)<br>1241 ( 40033)<br>1544 ( 50452)<br>7010 ( 226130)            |
| <b>AMMONIA NITROGEN</b>                   |                                                                              |                                                      |                                                    |                                                                               |
| LAKE MURUM<br>NON POINT<br>POINT<br>TOTAL | 171 ( 5516)<br>3 ( 97)<br>1214 ( 39161)<br>1388 ( 44774)                     | 16 ( 516)<br>508 ( 16387)<br>524 ( 16903)            | 18 ( 581)<br>122 ( 3935)<br>140 ( 4516)            | 171 ( 5516)<br>38 ( 1226)<br>2030 ( 65483)<br>2239 ( 72225)                   |
| <b>ORGANIC NITROGEN</b>                   |                                                                              |                                                      |                                                    |                                                                               |
| LAKE MURUM<br>NON POINT<br>POINT<br>TOTAL | 4162 ( 134258)<br>81 ( 2613)<br>662 ( 21355)<br>4905 ( 158226)               | 173 ( 5581)<br>162 ( 5226)<br>335 ( 10807)           | 229 ( 7387)<br>48 ( 1548)<br>277 ( 8935)           | 4162 ( 134258)<br>548 ( 17678)<br>959 ( 30935)<br>5669 ( 182871)              |
| <b>CHLORIDE</b>                           |                                                                              |                                                      |                                                    |                                                                               |
| LAKE MURUM<br>NON POINT<br>POINT<br>TOTAL | 93190 ( 3006129)<br>9260 ( 298710)<br>106354 ( 3430774)<br>208804 ( 6735613) | 5777 ( 186355)<br>11236 ( 362452)<br>17013 ( 548807) | 5769 ( 186097)<br>3249 ( 104806)<br>9018 ( 290903) | 93190 ( 3006129)<br>29908 ( 964775)<br>126606 ( 4084064)<br>249704 ( 8054968) |
| <b>SILICA</b>                             |                                                                              |                                                      |                                                    |                                                                               |
| LAKE MURUM<br>NON POINT<br>POINT<br>TOTAL | 7409 ( 239000)<br>609 ( 20935)<br>1314 ( 42548)<br>9377 ( 302483)            | 831 ( 26806)<br>354 ( 11419)<br>1185 ( 38225)        | 1048 ( 33806)<br>101 ( 3258)<br>1149 ( 37064)      | 7409 ( 239000)<br>2866 ( 92450)<br>1958 ( 63160)<br>12233 ( 394610)           |

BASIN LOADINGS IN METRIC TONS PER MONTH FOR NOVEMBER, 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                 | DET/ST. CLR BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN  | TOTAL             |
|---------------------------------|-------------------|-----------------|-----------------|----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>         |                   |                 |                 |                |                   |
| LAKE MURDOCK                    | 150 ( 5000)       |                 |                 |                | 150 ( 5000)       |
| MON. POINT                      | 27 ( 900)         | 1 ( 33)         | 15 ( 500)       | 14 ( 467)      | 57 ( 1900)        |
| POINT                           | 176 ( 5667)       | 39 ( 1300)      | 104 ( 3633)     | 24 ( 800)      | 342 ( 11400)      |
| TOTAL                           | 307 ( 11567)      | 40 ( 1333)      | 124 ( 4133)     | 38 ( 1267)     | 549 ( 18300)      |
| <b>ORTHOPHOSPHORUS</b>          |                   |                 |                 |                |                   |
| LAKE MURDOCK                    | 60 ( 2000)        |                 |                 |                | 60 ( 2000)        |
| MON. POINT                      | 7 ( 233)          | 1 ( 33)         | 5 ( 167)        | 5 ( 167)       | 18 ( 600)         |
| POINT                           | 126 ( 4267)       | 17 ( 567)       | 52 ( 1733)      | 12 ( 400)      | 209 ( 6967)       |
| TOTAL                           | 195 ( 6500)       | 18 ( 600)       | 57 ( 1900)      | 17 ( 567)      | 287 ( 9567)       |
| <b>NITRATE-NITRITE NITROGEN</b> |                   |                 |                 |                |                   |
| LAKE MURDOCK                    | 3992 ( 133067)    |                 |                 |                | 3992 ( 133067)    |
| MON. POINT                      | 168 ( 5600)       | 70 ( 2333)      | 121 ( 4033)     | 438 ( 14600)   | 797 ( 26566)      |
| POINT                           | 914 ( 30433)      | 167 ( 5567)     | 291 ( 9700)     | 130 ( 4333)    | 1501 ( 50333)     |
| TOTAL                           | 5073 ( 168100)    | 237 ( 7900)     | 412 ( 13733)    | 568 ( 18933)   | 6290 ( 209666)    |
| <b>AMMONIA NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURDOCK                    | 162 ( 5400)       |                 |                 |                | 162 ( 5400)       |
| MON. POINT                      | 2 ( 67)           | 0 ( 0)          | 6 ( 200)        | 19 ( 633)      | 27 ( 900)         |
| POINT                           | 1176 ( 39000)     | 182 ( 6067)     | 492 ( 16400)    | 119 ( 3967)    | 1963 ( 65434)     |
| TOTAL                           | 1334 ( 44467)     | 182 ( 6067)     | 498 ( 16600)    | 138 ( 4600)    | 2152 ( 71734)     |
| <b>ORGANIC NITROGEN</b>         |                   |                 |                 |                |                   |
| LAKE MURDOCK                    | 3951 ( 131700)    |                 |                 |                | 3951 ( 131700)    |
| MON. POINT                      | 41 ( 1367)        | 63 ( 2100)      | 123 ( 4100)     | 172 ( 5733)    | 399 ( 13300)      |
| POINT                           | 640 ( 21333)      | 84 ( 2800)      | 158 ( 5267)     | 46 ( 1533)     | 928 ( 30933)      |
| TOTAL                           | 4632 ( 154400)    | 147 ( 4900)     | 281 ( 9367)     | 218 ( 7266)    | 5278 ( 175933)    |
| <b>CHLORIDE</b>                 |                   |                 |                 |                |                   |
| LAKE MURDOCK                    | 8457 ( 2948567)   |                 |                 |                | 8457 ( 2948567)   |
| MON. POINT                      | 3394 ( 113133)    | 9188 ( 306267)  | 5197 ( 173233)  | 5454 ( 181800) | 23233 ( 774433)   |
| POINT                           | 102812 ( 3427667) | 5730 ( 191000)  | 10420 ( 360000) | 3144 ( 104800) | 122606 ( 4086867) |
| TOTAL                           | 140663 ( 6448767) | 14918 ( 497267) | 16117 ( 537233) | 8598 ( 286600) | 234296 ( 7809867) |
| <b>SILICA</b>                   |                   |                 |                 |                |                   |
| LAKE MURDOCK                    | 7020 ( 234000)    |                 |                 |                | 7020 ( 234000)    |
| MON. POINT                      | 408 ( 13600)      | 307 ( 10233)    | 707 ( 24000)    | 951 ( 31700)   | 2413 ( 80433)     |
| POINT                           | 1274 ( 42467)     | 164 ( 5467)     | 544 ( 18467)    | 98 ( 3267)     | 1880 ( 62668)     |
| TOTAL                           | 8702 ( 290067)    | 471 ( 15700)    | 1041 ( 36367)   | 1049 ( 34967)  | 11313 ( 377101)   |

BASIN LOADINGS IN MEGALITONS PER MONTH FOR DECEMBER, 1980  
(AVE DAILY LOADS IN KG/DAY)

|                                | DEI/ST. CLP BASIN | WESTERN BASIN   | CENTRAL BASIN   | EASTERN BASIN   | TOTAL             |
|--------------------------------|-------------------|-----------------|-----------------|-----------------|-------------------|
| <b>TOTAL PHOSPHORUS</b>        |                   |                 |                 |                 |                   |
| LAKE HURON                     | 150 ( 4468)       | 43 ( 1387)      | 53 ( 1710)      | 37 ( 1194)      | 154 ( 4968)       |
| NO. POINT                      | 50 ( 1903)        | 54 ( 1792)      | 125 ( 4032)     | 25 ( 806)       | 192 ( 6194)       |
| POINT                          | 176 ( 5677)       | 97 ( 3129)      | 178 ( 5742)     | 62 ( 2000)      | 380 ( 12257)      |
| TOTAL                          | 389 ( 12508)      |                 |                 |                 | 726 ( 23419)      |
| <b>ORTHOPHOSPHORUS</b>         |                   |                 |                 |                 |                   |
| LAKE HURON                     | 61 ( 1946)        | 20 ( 645)       | 13 ( 419)       | 12 ( 387)       | 61 ( 1968)        |
| NO. POINT                      | 24 ( 774)         | 27 ( 871)       | 60 ( 1935)      | 12 ( 387)       | 69 ( 2225)        |
| POINT                          | 133 ( 4200)       | 47 ( 1516)      | 73 ( 2354)      | 24 ( 774)       | 232 ( 7483)       |
| TOTAL                          | 218 ( 7032)       |                 |                 |                 | 362 ( 11676)      |
| <b>NITRATE-NITRIC NITROGEN</b> |                   |                 |                 |                 |                   |
| LAKE HURON                     | 4044 ( 131742)    | 870 ( 28045)    | 534 ( 17226)    | 709 ( 22711)    | 4044 ( 131742)    |
| NO. POINT                      | 934 ( 30129)      | 220 ( 7097)     | 308 ( 9935)     | 134 ( 433)      | 3047 ( 98291)     |
| POINT                          | 458 ( 14903)      | 1090 ( 35162)   | 802 ( 27161)    | 893 ( 27194)    | 1620 ( 52256)     |
| TOTAL                          | 5976 ( 192774)    |                 |                 |                 | 8751 ( 282291)    |
| <b>AMMONIA NITROGEN</b>        |                   |                 |                 |                 |                   |
| LAKE HURON                     | 166 ( 5355)       | 17 ( 508)       | 26 ( 839)       | 24 ( 774)       | 166 ( 5355)       |
| NO. POINT                      | 12 ( 387)         | 284 ( 9161)     | 512 ( 16516)    | 133 ( 4200)     | 79 ( 2588)        |
| POINT                          | 1232 ( 39742)     | 301 ( 9704)     | 538 ( 17355)    | 157 ( 5064)     | 2161 ( 69709)     |
| TOTAL                          | 1410 ( 45444)     |                 |                 |                 | 2406 ( 77612)     |
| <b>ORGANIC NITROGEN</b>        |                   |                 |                 |                 |                   |
| LAKE HURON                     | 4042 ( 130387)    | 351 ( 11323)    | 363 ( 11710)    | 247 ( 7968)     | 4042 ( 130387)    |
| NO. POINT                      | 218 ( 7032)       | 49 ( 2871)      | 166 ( 5355)     | 48 ( 1508)      | 1179 ( 38033)     |
| POINT                          | 674 ( 21742)      | 440 ( 14124)    | 529 ( 17065)    | 295 ( 9516)     | 977 ( 31516)      |
| TOTAL                          | 4934 ( 159161)    |                 |                 |                 | 6108 ( 199936)    |
| <b>CHLORINE</b>                |                   |                 |                 |                 |                   |
| LAKE HURON                     | 90514 ( 2919806)  | 17809 ( 574484) | 14079 ( 454161) | 8090 ( 260968)  | 90514 ( 2919806)  |
| NO. POINT                      | 14181 ( 457452)   | 5996 ( 193419)  | 11358 ( 366387) | 3249 ( 104406)  | 54159 ( 1747065)  |
| POINT                          | 110128 ( 3552516) | 23805 ( 767903) | 25437 ( 820548) | 11339 ( 365774) | 130731 ( 4217128) |
| TOTAL                          | 214823 ( 6929774) |                 |                 |                 | 275404 ( 8883999) |
| <b>SILICA</b>                  |                   |                 |                 |                 |                   |
| LAKE HURON                     | 7192 ( 232000)    | 1753 ( 56548)   | 1943 ( 63323)   | 1377 ( 44419)   | 7192 ( 232000)    |
| NO. POINT                      | 1461 ( 47129)     | 187 ( 6032)     | 356 ( 11444)    | 101 ( 3258)     | 6554 ( 211419)    |
| POINT                          | 1373 ( 44290)     | 1940 ( 62580)   | 2319 ( 74807)   | 1478 ( 47677)   | 2017 ( 65064)     |
| TOTAL                          | 10026 ( 323419)   |                 |                 |                 | 15763 ( 508483)   |

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