



Navy Region Southwest

CONVERSION TECHNOLOGY PROJECT

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Sustainable Solid Waste Program

MISSION, VISION, GUIDING PRINCIPALS

- **MISSION:** Provide policy, guidance, and direction to *institutionalize* and execute sustainable solid resource and waste management practices throughout NRSW for all activities that generate non-hazardous solid waste

Holistic Approach that Emphasizes Resource / Commodity Management
Develop Management Approaches for Different Navy Communities
Promote a Culture of Resourcefulness vs. Wastefulness

- **VISION:** By 2012, NRSW will have a fully institutionalized Sustainable Solid Waste Management Program that is efficiently and effectively executed

Move towards “SSW’s 2020 Vision – NOTHING WASTED”

- **GUIDING PRINCIPALS:** Use **RCRA** definition of non-hazardous solid waste and DoD’s solid waste hierarchy of: Reduce, Reuse, Recycle, Disposal only as a last resort

Leadership has a role to promote a culture of resourcefulness versus wastefulness

WASTE CONVERSION TECHNOLOGY PROJECT



- **Miramar landfill scheduled to close 2019**
 - Estimated \$8M - \$12M annual increase in Navy's refuse disposal costs
- **Navy Environmental Sustainability Development to Integration (NESDI) R&D funding secured for conversion technology feasibility study**
 - Study began February 2008 and continues with an expected draft in July
 - Broad Agency Agreement to partner with UCLA for conducting the feasibility study
 - Part of UCLA's Engineering and Technology Dept's Recycling / Municipal Solid Waste Management Certification Program to establish case study and benchmarking for the State of CA
 - Study will identify optimal conversion technology to produce clean energy from Navy generated solid waste
 - Developing methodology for CT approach to SSW Mgt and Energy generation
 - NESDI requirement to be "off-the-shelf" for use Navy-wide
- **"ECO Park" approach to maximize waste value and realize Energy goals**
 - MRF first – CA AB 222
 - Waste Derived Fuel (WDR) management to maximize value of wasteshed
 - Combination of several types of technologies
 - **Planned to enhance meeting Navy energy goals**

WASTE CONVERSION TECHNOLOGY PROJECT



- Extensive waste characteristic study (Navy & surrounding municipalities) **complete**
- Partnering with municipalities the project becomes more economically feasible.
 - larger plants, supporting over 1,000 tons per day, have greater returns on investment
 - More welcoming for outside investment opportunities
- **Environmental Justice study complete**
 - will be incorporated into the final report in July
- Comprehensive Traffic Study **complete**
- **Public Outreach beginning SEP 10**
 - Modeled after Los Angeles' "RENEW LA" Initiatives
 - Public as stake holders
 - Start early

FEASIBILITY STUDY

Began Sept 2009



Phase I: Waste Characterization

- What is available as wasteshed
- How much? BTU's?
- Partnership opportunity with other municipalities, waste haulers

Phase 2: Technology Review

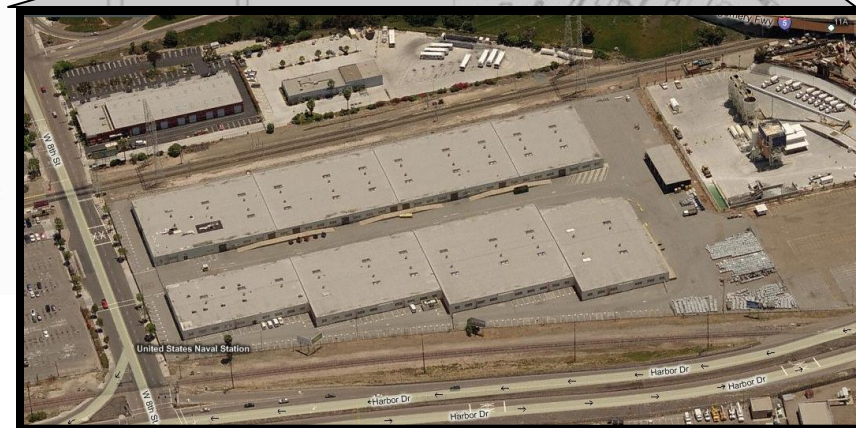
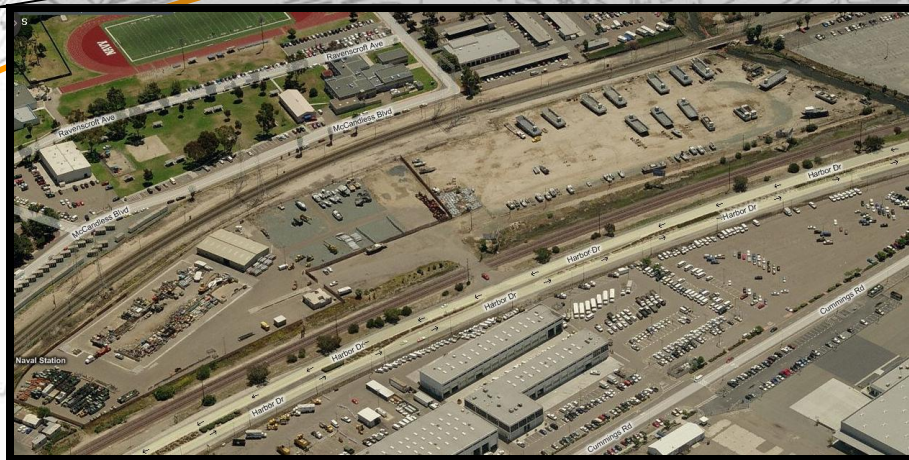
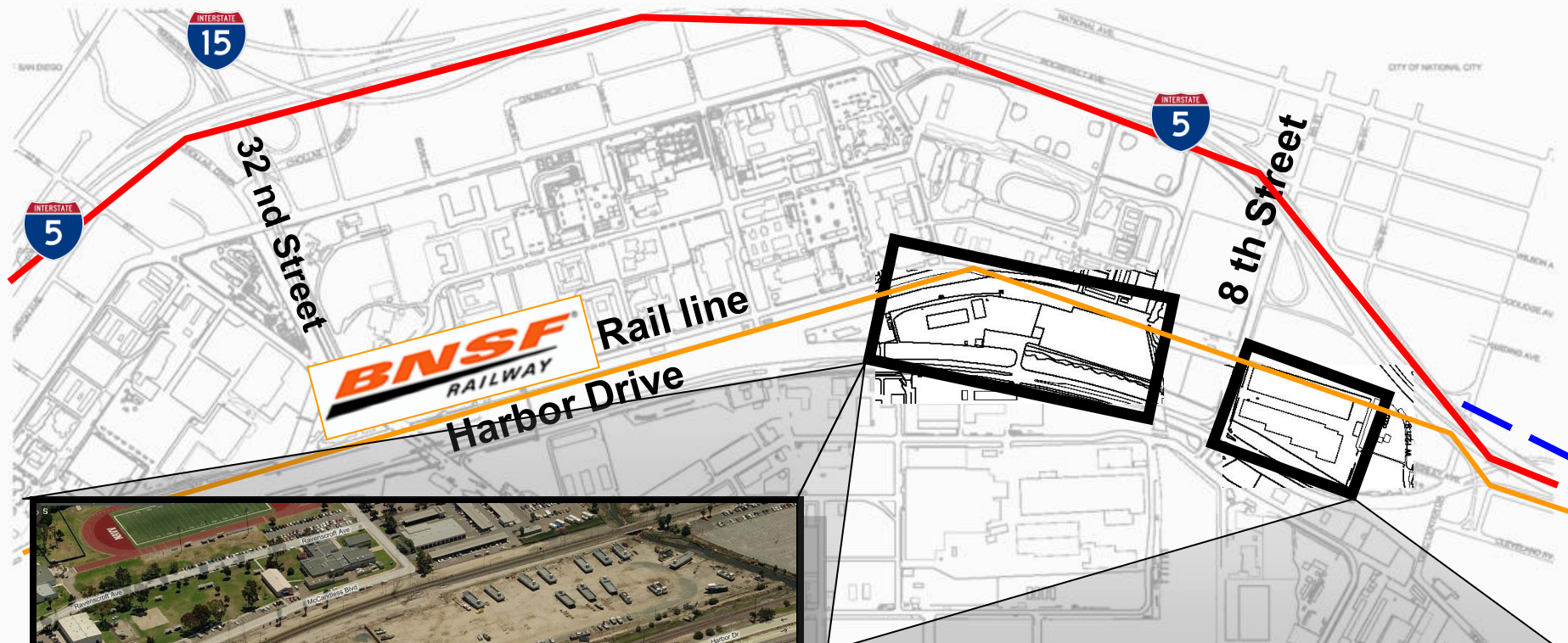
- What technology is available to convert local wasteshed
- Size necessary for ROI
- Real Estate and land use requirements per technology
- NEPA / CEQA requirements identified
- Energy Joint Venture or Enhanced Use Lease Project
 - Identify Renewable Energy needs
 - Electricity?
 - Ethanol?
 - Syn gas?
 - Municipal Recovery Facility (MRF)
 - MRF first evaluation

Phase 3: Project Scenarios and Site Evaluation

SUPPORT FROM Naval Base San Diego



- **Identified sites on NBSD**
 - can include both a sorting area and the conversion technologies
 - 28+ acres
 - No gated entrance
 - Leaves open potential to partner with local communities for wasteshed for project to reach full ROI potential
 - Rail access
 - Major Highway access
- **Planning and land use expertise on CFT**
 - “urban planning” concept
- **Traffic study input into feasibility study**
- **Potential for community outreach to National City, local waste haulers, other municipalities**



Proposed Sites

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