

**City of Ridgecrest**  
**City Council**  
  
**New Wastewater Treatment Plant**  
**Project Update**  
  
**April 5, 2017**



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**Where we are.....**

- § Completed Facility Planning
  - ü 2 site alternatives under consideration
- § Completed Financial Studies and Adopted New Sewer Rates
- § Completed 30% Plans
- § Completed and Certified EIR
- § Prepared Preliminary Application for CWSRF Loan
- § Navy Has Prepared New Easement Maps and Legal Descriptions w Draft Operating Agmt.

**Next steps.....**

- § File Notice of Determination for EIR
- § Finalize Easement/Use Negotiations with Navy
- § Site Selection for WWTP
- § Authorize Final Design Services
- § Submit Technical, Environmental and Financial Packages to CWSRF
- § Apply for Waste Discharge Permit from Water Board

**Recycle Water**

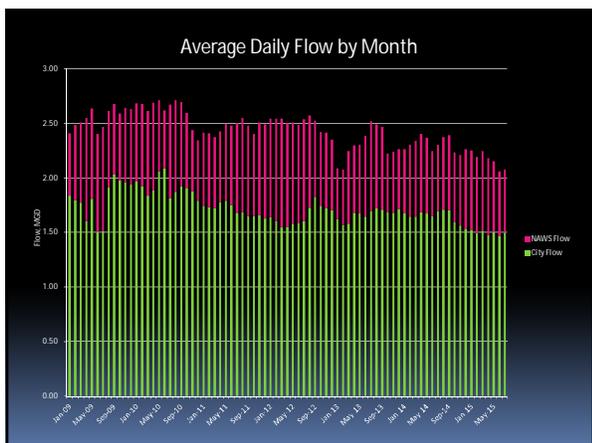
- § Recycle Water Component of the Project Needs Further Development
- § Green Projects Get Higher Funding Priority
- § A Recycle Water Study is Recommended to Determine Demand, Availability, Cost and Best Use
- § Identify and Negotiate with Potential Recycle Water Users

**Proposed Design Capacity**

- § **Phase 1 (2030)**
  - ü AAD 3.6 mgd (Average Annual Demand)
  - ü ADMM 4.0 mgd (Average Day Maximum Month)
- § **Phase 2 (2050)**
  - ü AAD 5.4 mgd
  - ü ADMM 5.9 mgd

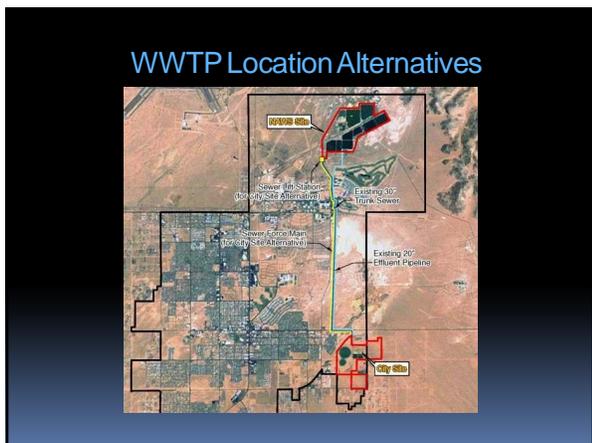
**Current Flow**

- § WWTP Operating at 2.2 mgd
- § WWTP Flow Split
  - ü City of Ridgecrest 70%
  - ü NAWS China Lake 30%
- § NAWS China Lake is a Customer of the WW Utility and Pays Its Full Share of the Cost of Capital and O&M



## WWTP Site Alternatives

- § China Lake NAWS Site
  - ⊆ Adjacent to existing WWTP & majority of disposal ponds
  - ⊆ On easement granted by Navy
- § City Site
  - ⊆ Site of original City WWTP
  - ⊆ On land owned by City
  - ⊆ Site of some disposal ponds & alfalfa irrigation



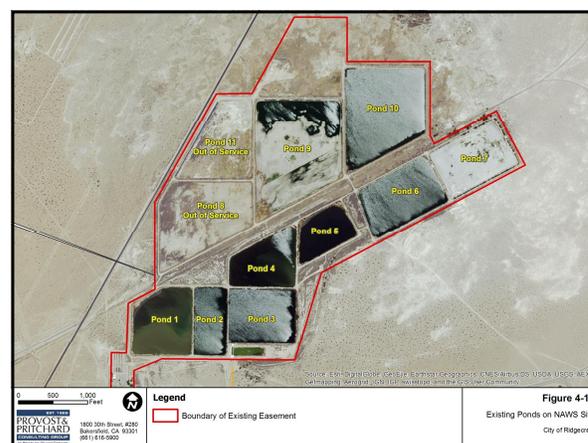
## Site Evaluation Factors:

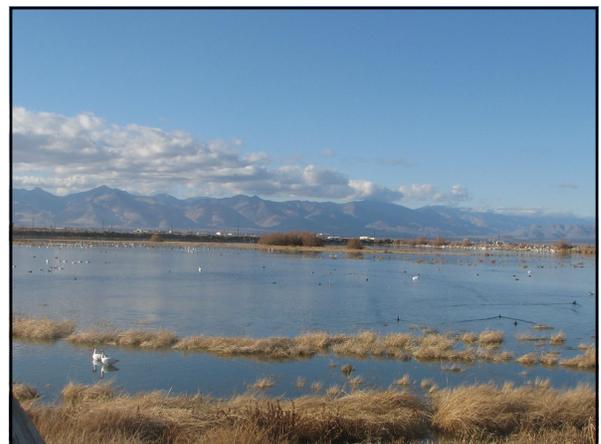
- § Non-Economic Factors
  - ⊆ Accessibility
  - ⊆ Proximity to Other Public Works operations
  - ⊆ Proximity to Recycle Water Users
  - ⊆ Expandability
  - ⊆ Flexibility
  - ⊆ Autonomy
  - ⊆ Regulatory Oversight
  - ⊆ Security
  - ⊆ Odor & Nuisance Conditions
  - ⊆ Public Acceptability
  - ⊆ Connectability
  - ⊆ Environmental

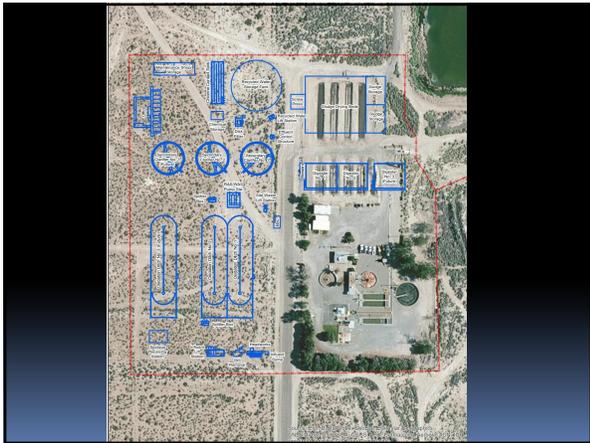
Site must meet needs of City.

## China Lake NAWS Site

- § Adjacent to Existing WWTP
- § Sits on Easement from Navy
- § Can Intercept All Flow Without Lift Stations
- § Isolated and Secure
- § Requires Daily Entry Through Base Security Gates
- § Requires Pumping Through Existing Force Main to City Site for Effluent Disposal

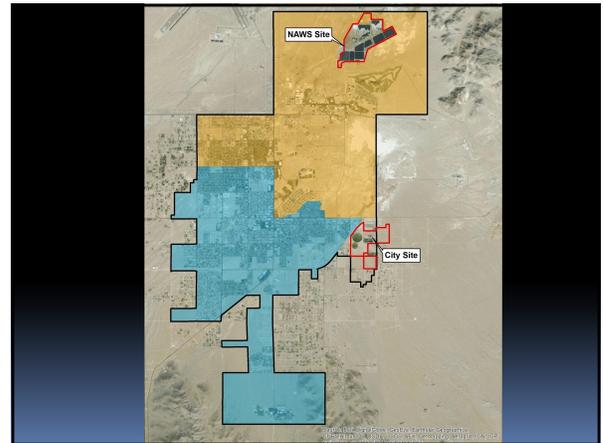






### City Site

- § Requires New Lift Station at NAWS Site and New 4-Mile 16-inch Force Main
- § Requires New Sewer to Intercept Flow at California and Lumill
- § Closer to Residents
- § More Convenient to Access
- § NAWS Site Still Needed for Effluent Disposal
- § Located 70 feet Higher than NAWS Site
- § Requires Pumping Through Existing Force Main to NAWS Site for Effluent Disposal





### Present Effluent Disposal/Re-use

- § Re-use/Recycling
  - ü Golf Course at NAWS: 750 AF per Year ( 500 AF per Year Actual)
  - ü Spray Irrigation of Alfalfa
- § Disposal Ponds at NAWS and City Sites
- § 20" Effluent Transfer Pipeline
  - ü Connects NAWS and City Sites

### Effluent Disposal/Reuse

- § Disposal/reuse is the same for both sites
  - ü Existing NAWS Ponds will stay in place
  - ü Golf Course irrigation will continue
  - ü City alfalfa irrigation will continue
  - ü New percolation ponds will be built at City site
  - ü City will pursue recycled water program

### Recommended Site

- § Existing NAWS Site Highest Ranked Based on Technical/Cost Analysis
- § But.....Other Non-technical, Non-monetary Factors Should Be Considered
- § It Is Contingent on a New Long-term Operating Agreement with the Navy
  - ü Necessary to secure financing
- § Environmental Analysis Completed & Both Sites Are Environmentally Acceptable (per CEQA)

### Recycled Water

- § China Lake Golf Course
- § Parks and School Athletic Fields
- § NAWS Turf and Irrigated Areas
- § Indirect potable re-use
- § Other???
- § Requires Addition of Tertiary Treatment
  - ü Filtration
  - ü Disinfection
  - ü Will provide for unrestricted use



### China Lake NAWS Site- Cost Secondary Treatment

§ Construction Cost	\$34.0 million
§ Engineering/Contingency	10.0 million
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§ Total Project Cost	\$44.0 million
§ Updated Cost	<b>\$50.6 million</b>

### City Site Costs Secondary Treatment

§ Construction Cost	\$38.5 million
§ Engineering/Contingency	11.5 million
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§ Total Project Cost	\$50.0 million
§ Updated Cost	<b>\$57.5 million</b>

### Tertiary Treatment

§ Construction Cost	\$6.3 million
§ Engineering/Contingency	\$1.9 million
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§ Total Project Cost	\$8.2 million
§ Updated Cost	<b>\$9.4 million</b>

### WWTP Expansion- Phase 2 Expansion to 5.4 mgd

§ Construction Cost	\$9.2 million
§ Engineering/Contingency	\$2.8 million
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§ Total Project Cost	\$12.0 million
§ Updated Cost	<b>\$13.8 million</b>

### Financing Alternatives

- § General Obligation Bonds
  - ü Requires 2/3 vote
  - ü 20 to 30 Year Term; 3.3% to 3.95% Interest
- § Revenue Bonds
  - ü 20 Year Term; 3.85% to 4.35%
  - ü No Voter Approval Required
- § Clean Water SRF Loans
  - ü 20 to 30 Year Term; Recent Interest 2.26%
  - ü 100% Financing Available

### Financing (cont)

- § Preliminary Analysis Indicates that Current Rates Will Support \$44 Million Capital Expenditure and Future O&M Costs
- § SRF Funding Is the Most Attractive Alternative
- § Tax Free Municipal Bonds May Be Restricted if NAWS Site Is Utilized
- § City to Consult with a Municipal Financial Advisor Regarding Financing before Selecting Alternative

Questions and Discussion

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