



**Bear Valley Water District
Tertiary Facilities Assessment District
December 29, 2007**

ECO:LOGIC



Presentation Outline

Need for Project

Alternatives to Project

Recommended Project

Financing Alternatives

Recommended Financing

Next Steps and Q & A



Need For Project

- ❖ Spills occurred in '95, '96, '98, and '99
- ❖ Regional Board issued Cease & Desist Order
- ❖ District obtained additional temporary disposal land from US Forest Service to get by
- ❖ 2003 projections indicated that capacity would be reached within 5 years, so District applied for NPDES permit
- ❖ 2006 Effluent Storage Reservoir had to be sandbagged to avoid a spill



Need For Project (cont)

- ❖ District requested NPDES permit for secondary effluent to Bloods Creek
- ❖ Due to objections from downstream users and Regional Board pressures, NPDES permit was issued with tertiary treatment requirement in October of 2005
- ❖ Tertiary treatment is now mandatory regardless of the size of Bear Valley



Alternatives to Project

- ❖ **Expansion of Effluent Storage Reservoir**
- ❖ **Acquisition of additional land for storage and disposal**
- ❖ **Treat to tertiary level for only discharge to Bloods Creek**
- ❖ **Pursue relief from the Regional Board permit requirements through legal means**
- ❖ **No-project alternative (C&D, moratorium, and fines)**



Recommended Project

- ❖ **Build system to accommodate District master plan development at 0.5 Mgal/d**
- ❖ **Keep existing pond as secondary process until expansion/change is necessary**
- ❖ **Utilize membrane ultrafiltration as best means of meeting permit requirements**
- ❖ **Pre-treat before filter with dissolved air flotation (DAF)**
- ❖ **Disinfect utilizing ultraviolet radiation**



Recommended Project (cont)

Opinion of Probable Capital Cost for Build-out Tertiary Facilities Project

Capital Expense	Notes	Capital Expenditure
Total Construction Cost	a	\$9,420,000
Design Engineering Allowance	b	\$895,000
Engineering Services During Construction (at 4%)	b	\$377,000
Construction Management, Inspection, and System Startup (at 8%)	b	\$754,000
Incurred Capital Costs plus administration/legal (at 1%)	c	\$369,000
Total Capital Cost		\$ 11,815,000

- a – Projected to a mid-point of construction ENR CCI of 8768 for August 2009 and 10% contingency.
b – Budget allocations with actual costs to be based on a detailed scope of work for each component.
c – Includes expenses incurred up through June 2007 and allocation of 1% for administration and legal not related to the assessment district.



Recommended Project (cont)

- ❖ **Costs are preliminary and intended to represent conservative upper limit**
- ❖ **Cost savings measures will be considered during design**
- ❖ **Actual project costs will be based on competitively bid construction project**
- ❖ **Project costs for this facility are expected to be higher than similar capacity facilities at lower elevations**



Financing Alternatives

Funding Sources

- ❖ Grants
- ❖ Federal and State Loan Programs
- ❖ Commercial Bank Loans
- ❖ Bonds:
 - ◆ Revenue Bonds
 - ◆ Limited Obligation Imp. Bonds

Revenue Sources

- ❖ User Fees
- ❖ Special Taxes
- ❖ Assessments
- ❖ Connection Fees
- ❖ Upfront Developer Contributions



Financing Alternatives (cont)

Analysis of Plausible Financing Strategies

❖ State Loan Programs

- ◆ Secured by user fees
- ◆ High user fees (\$2,280/year/EDU with \$1,350 for tertiary facilities)
- ◆ Not equitable
- ◆ Limited ability to refinance previous debt

❖ Special Tax

- ◆ Limited ability to tax vacant land or federal land
- ◆ Cost per unit goes up
- ◆ Not equitable

❖ Assessment District

- ◆ Assess current and future users equally based on benefit
- ◆ Flexible refinancing options
- ◆ Reduced cost per unit as current and future benefit is equally distributed (\$669/year/EDU)
- ◆ Limited ability to lien federal lands



Recommended Financing

- ❖ Limited obligation improvement bonds (1913 Act) to finance project
- ❖ Assessment District combined with user fees for users on federal lands to pay down bonds



Recommended Financing (cont)

Total Project Cost and Incidental Expenses for Recommended Financing Approach

Description	Notes	Expense
Total Capital Cost	a	\$11,815,000
Refinancing of Existing Debt	b	\$550,000
Assessment District Engineering Fees		\$75,000
Legal Fees		\$140,000
Out of Pocket Expenses of Special Bond Counsel (at 10%)		\$14,000
Capitalized Interest	c	\$828,000
Reserve Fund	d	\$1,126,000
Underwriters Discount	e	\$150,000
Miscellaneous Expenses (public notices and printing)		\$4,000
Total Capital Cost		\$14,702,000

- a – Projected total capital cost as outlined in Table 1-6.
- b – Refinancing of F&M Line of Credit for Outfall Project.
- c – Based on one year of capitalized interest.
- d – Reserve fund of one year of debt service.
- e – Based on 1% of bond.



Recommended Financing (cont)

Resulting Assessment and Cost Comparison

Description	Cost per Sewer Service Unit ^c	Cost per EDU
Total Cost for Prepayment of Assessment	\$2,915	\$8,745
Annual Cost of Bond Repayment ^a	\$223	\$669
Total Cost to Repay Bonds ^a	\$6,690	\$20,070
Alternative Phase I Project Annual Debt Service Cost ^b	\$450	\$1,350

a – Annual cost assuming 6.5% annual interest rate and 30 year term

b – Debt service cost for Phase I facility financed with loan proceeds.

c – Sewer service unit as defined by District Ordinance No. 1



Next Steps

- ❖ **District receives input from public**
- ❖ **If assessment district appears to be feasible, then:**
 - ◆ Prepare facilities design
 - ◆ Prepare assessment district engineer's report
 - ◆ Hold public hearing and receive ballots from assessed land owners
 - ◆ Bid project and issue bonds based on bid costs
 - ◆ Record assessments
 - ◆ Construct project and administer assessment district



Next Steps (cont)

❖ Notes on the assessment district proceedings:

- ◆ Ballots sent to assessed land owners
- ◆ Ballots weighted according to assessment
- ◆ Assessment district vote passes if weighted ballots received in favor of the assessment district is greater than the weighted ballots received in opposition to the assessment district
- ◆ Ballots not sent in have no weight
- ◆ Assessments can be pre-paid to avoid financing charges



More Information

Additional information can be found at:

www.ecologic-eng.com/project_links.htm

User Name: bvwd

Password: tertiary

Send Comments to: BVWD@ecologic-eng.com

ECO:LOGIC



Q & A

ECO:LOGIC