

City of Rio Dell
Wastewater Planning Session
January 12, 2010
Agenda

1. Introductions and Review of Agenda items to be discussed
2. Review of Project Status
 - a. Regulatory Background)
 - b. Documents and Actions by City
 - c. Regional Board Meeting
 - d. Funding (update on planning funding, final funding, and bridge- Stephanie)
3. Review of Existing System
 - a. Collection System
 - b. Headworks
 - c. Treatment System
 - d. Solids Handling
 - e. Disinfection
 - f. Discharge/Disposal
4. Discussion of Wastewater Treatment Approach Alternatives
 - a. Option 1- Selected Alternative, New SBR at Eel River Industrial Park Site
 - b. Option 2- New SBR System at Existing Rio Dell Corp Yard
 - c. Option 3- Retrofit of Existing Plant (Many unknown that still need to be fleshed out – here's what it would take to do the evaluation – benefits/drawbacks)
 - d. Comparison of Alternatives
 - e. Funding Implications
 - f. Future Expandability for Rio Dell growth and Incorporation of Scotia Flows
 - g. Direction on Treatment Upgrade Approach
5. Discussion/ Update on Disposal
 - a. Review of Mozzetti Soils and Groundwater Report
 - b. Next Steps- Anti-Degradation Analysis and Land Negotiations
6. Near-term Next Steps
 - a. Develop Funding Options for planning and construction
 - b. Conduct Anti Degradation Analysis to evaluate disposal impacts on groundwater quality
 - c. Proceed on Land Acquisition for Disposal
 - d. Scope of Services for Winzler & Kelly to complete conceptual project layout
7. Summary

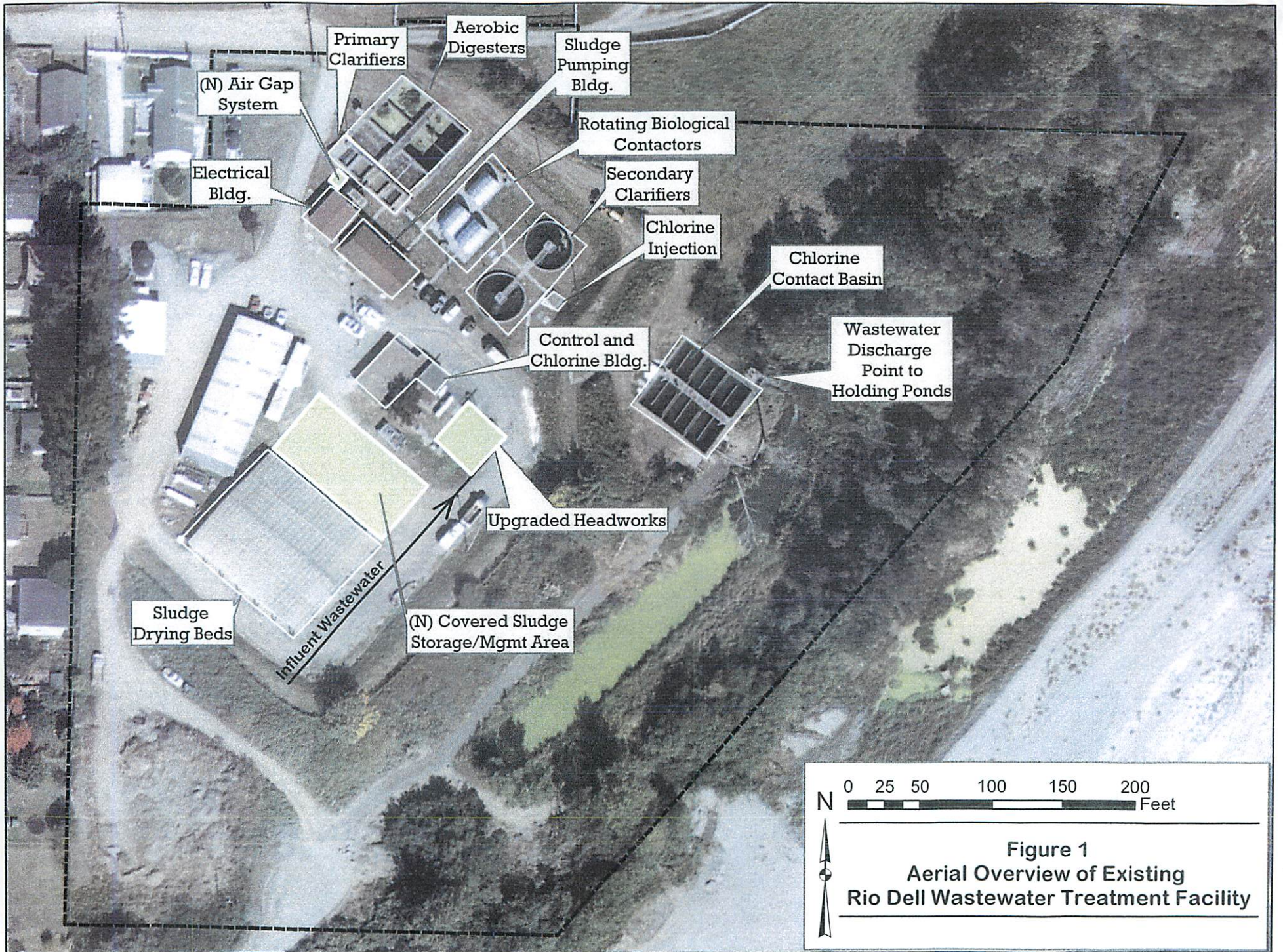
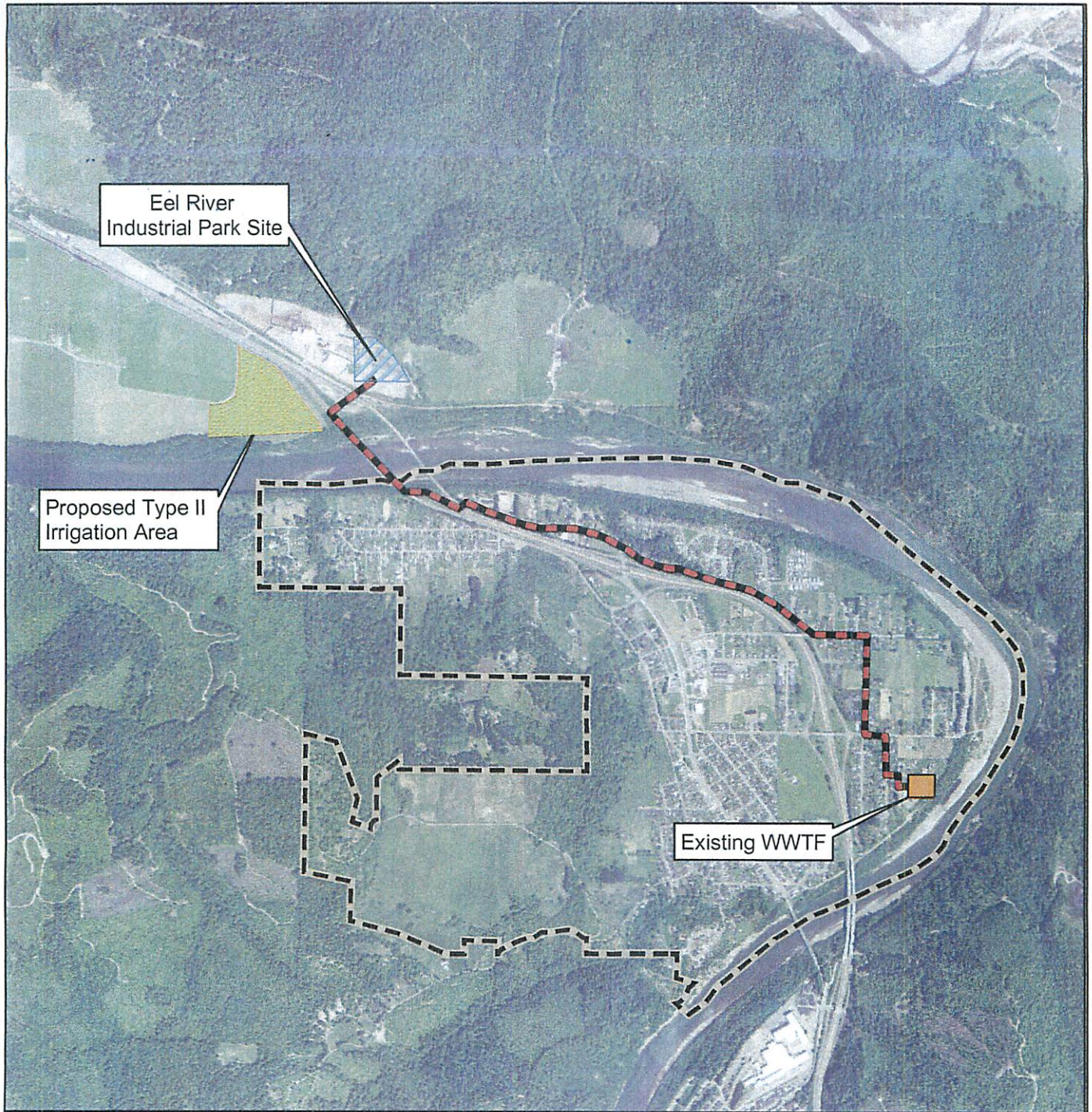


Table 0: Summary of Wastewater Treatment Options (January 12, 2010)

	Option 1: New WWTP at ERIP with Type II Irrigation on Mozzetti Parcel for Disposal	Option 2: New WWTP at Rio Dell Corp Yard with Type II Irrigation on Mozzetti Parcel for Disposal	Option 3: Modify Existing Treatment System for Improved treatment and nitrogen removal with Type II Irrigation on Mozzetti Parcel for Disposal
Planning Document Reference	Approved Alternative from March 2009 Wastewater Facilities Plan	New WWTP at Rio Dell Corp Yard from April 2008 Final EIR, Type II Irrigation from March 2009 Wastewater Facilities Plan	Modification of Existing WWTP from 2006 Capital Improvement Plan in combination with New Nitrogen Removal, Type II Irrigation from March 2009 Wastewater Facilities Plan
Changes since last evaluation	The City has been strongly advised by the RWQCB to focus on addressing the disposal system Cease and Desist Order. RWQCB is concerned that including a new WWTP at the ERIP with the disposal project delay the disposal project.	The Implementation of the Solids and Disinfection Management Project has freed up the space previously occupied by the sludge drying beds, and the design of the new sludge press and storage building provides the City more flexibility to construct at this site	Due to the pressure to implement a disposal system as soon as possible and reduce costs, the City has been discussing the option of upgrading the existing system to remove nitrogen and better reduce BOD
Prelim Engineering	\$398,900	\$336,900	\$356,900
Design/ Construction	\$14,000,000	\$11,400,000	\$9,600,000
Implementation	2.5 years or longer	22 months	22 months
Advantages	<ul style="list-style-type: none"> • New WWTP with reduced maintenance • WWTP located away from population center • ERIP Site has potential for additional land as needed • Potential to promote economic development at ERIP • Consolidates Treatment and Disposal in the same vicinity (Operator efficiency) 	<ul style="list-style-type: none"> • New WWTP with reduced maintenance • City already owns land • Less permitting requirements • Reuse existing contact basin • Ability to defer outfall upgrade/permitting • Approx. \$2.6 million less than Option 1 	<ul style="list-style-type: none"> • Potentially less effort to implement in the near-term with the ability to phase in implementation and defer costs • Reuse existing equipment • Ability to defer outfall upgrade/permitting • Approx. \$2.6 million less than Option 2
Disadvantages	<ul style="list-style-type: none"> • Time to address environmental permitting may be significant (ACOE and Brownfield) • Negotiations for land could be difficult and time consuming • Pumping untreated wastewater across the river 	<ul style="list-style-type: none"> • Site space is limited which may complicate future expansion • WWTP remain close to residential 	<ul style="list-style-type: none"> • Existing equipment will not act like new equipment and continued maintenance costs will be high • WWTP remain close to residential • Increases complication of operation • May not address all compliance issues



Legend

-  Transmission Pipeline
-  Potential Irrigation Areas
-  Rio Dell City Limits
-  Potential parcels
-  Proposed Storage and WWTF Area

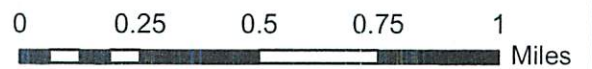


Figure 2
Option 1: New WWTF at ERIP
City of Rio Dell

Data Sources: Aerial Photo: NAIP 2005, City Limits: Rio Dell 2005

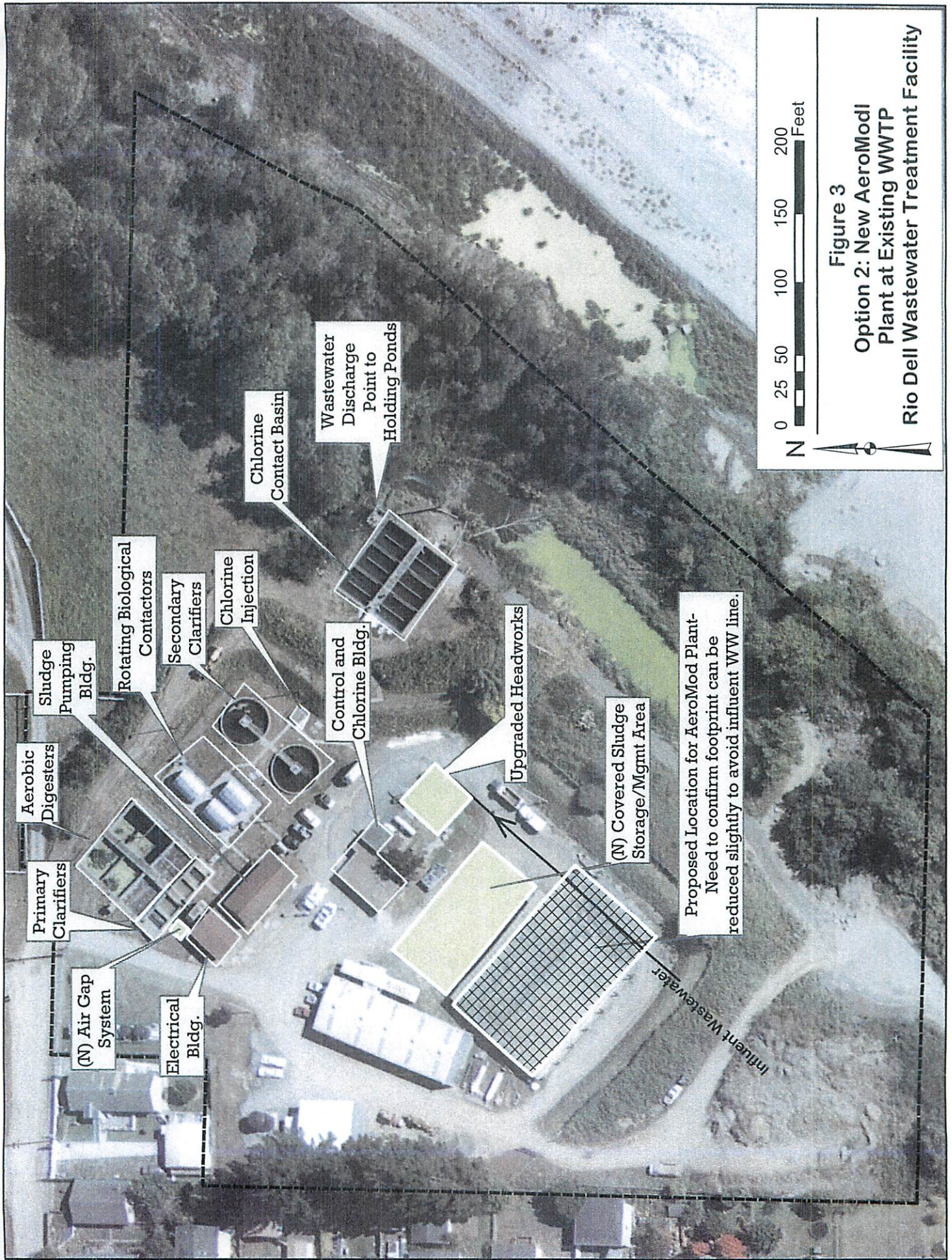


Figure 3
 Option 2: New AeroMod
 Plant at Existing WWTP
 Rio Dell Wastewater Treatment Facility

Proposed Location for AeroMod Plant-
 Need to confirm footprint can be
 reduced slightly to avoid influent WW line.

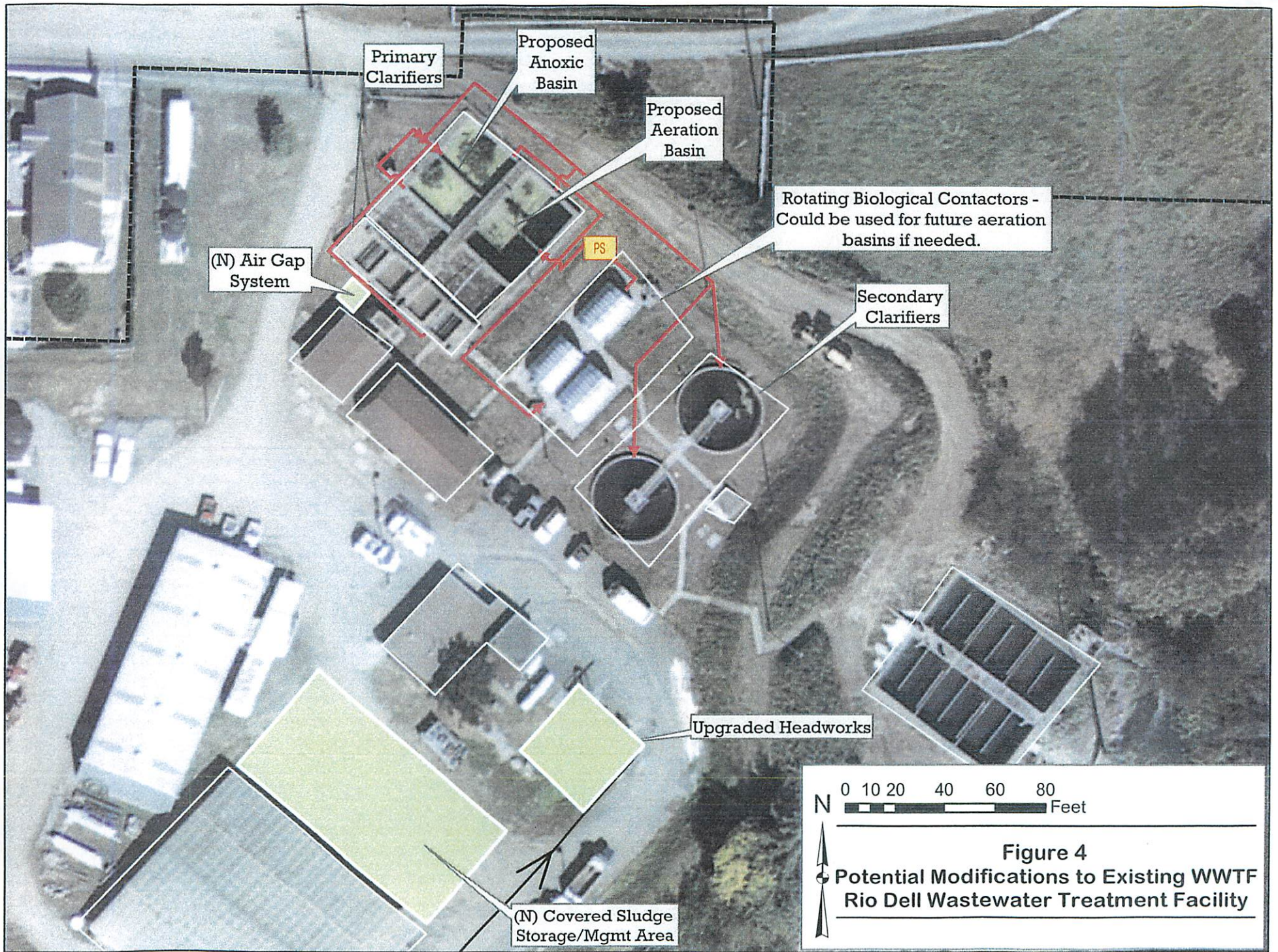


TABLE 1 - Summary Comparison of Opinion of Probable Construction Costs
Rio Dell Wastewater Treatment and Disposal Project
 January 12, 2010

DESCRIPTION	OPTION 1	OPTION 2	OPTION 3
Disposal System (Transmission Pipeline & Irrigation System) ¹	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
Pump Station(s)	\$ 540,000	\$ 540,000	\$ 540,000
Chlorine Contact Basin/Outfall System	\$ 630,000	\$ 175,000	\$ 175,000
Common Treatment Items			
<i>Mob/Demob/Insurance</i>	\$ 450,000	\$ 350,000	\$ 240,000
<i>Site Prep</i>	\$ 150,000	\$ 60,000	\$ 20,000
<i>New Buildings (Office, Shop, Lab, Blower Bldg.)</i>	\$ 1,325,000	\$ 200,000	\$ 200,000
<i>Controls & SCADA</i>	\$ 200,000	\$ 150,000	\$ 150,000
<i>Chemical Feed System for Nitrogen Removal</i>	\$ 130,000	\$ 130,000	\$ 130,000
<i>Standby Power with ATS</i>	\$ 200,000	\$ 200,000	\$ 200,000
<i>Misc. Facility (Piping, Valves, Meters, Appurtenances)</i>	\$ 220,000	\$ 220,000	\$ 220,000
<i>Startup & Testing</i>	\$ 100,000	\$ 90,000	\$ 80,000
<i>Other (Electrical, Fencing, Lighting)</i>	\$ 120,000	\$ 80,000	\$ 80,000
AeroMod Treatment (Concrete Tanks/Equipment) ²	\$ 3,000,000	\$ 3,000,000	--
Alternative Treatment			
<i>Modify (E) Tankage for Anoxic Treatment</i>	--	--	\$ 100,000
<i>(N) Tankage for Activated Sludge (incl. blowers/diffusers)</i>	--	--	\$ 750,000
<i>(N) Recirculating Pump Stations</i>	--	--	\$ 200,000
<i>Address (E) Maintenance Needs</i>	--	--	\$ 650,000
Subtotal for Treatment	\$ 5,895,000	\$ 4,480,000	\$ 3,020,000
Subtotal for Treatment and Disposal	\$ 10,065,000	\$ 8,195,000	\$ 6,735,000
Capital Contingency (20%)	\$ 2,013,000	\$ 1,639,000	\$ 1,347,000
Planning, Permitting, and Preliminary Design ³	\$ 398,900	\$ 336,900	\$ 356,900
Design (varies 8-14%)	\$ 888,600	\$ 729,900	\$ 794,300
Construction Management (10%)	\$ 1,006,500	\$ 819,500	\$ 673,500
Total	\$ 14,372,000	\$ 11,720,300	\$ 9,906,700
CALL	\$ 14,400,000	\$ 11,800,000	\$ 10,000,000

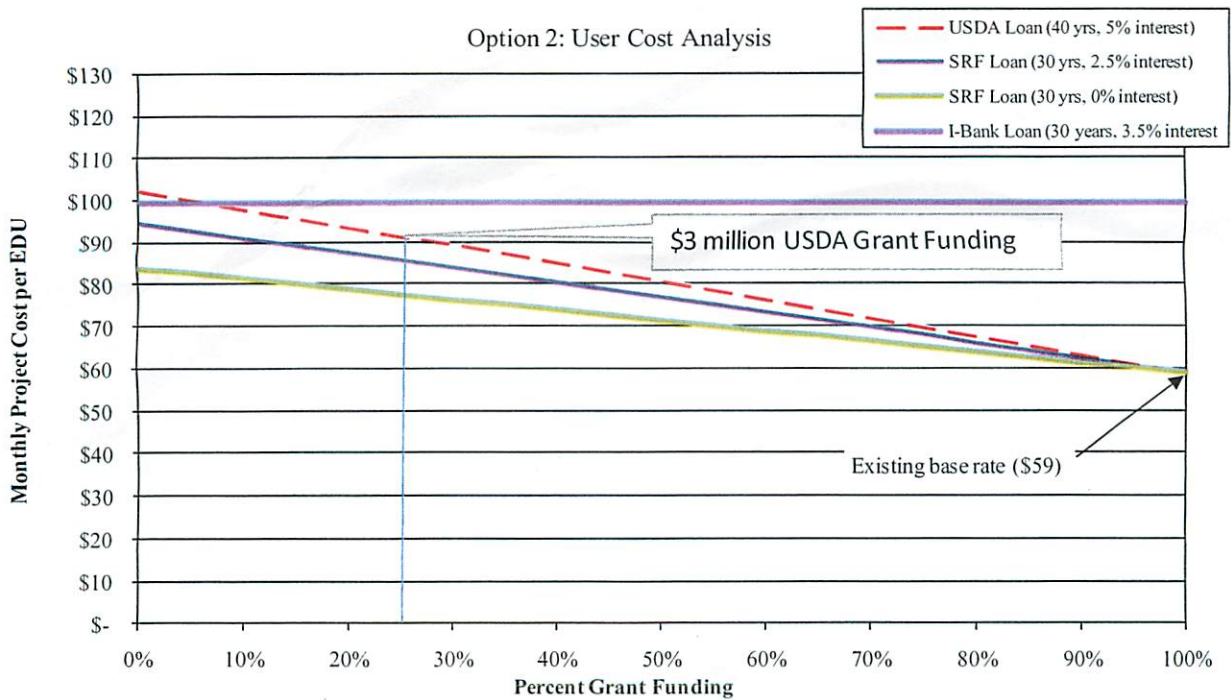
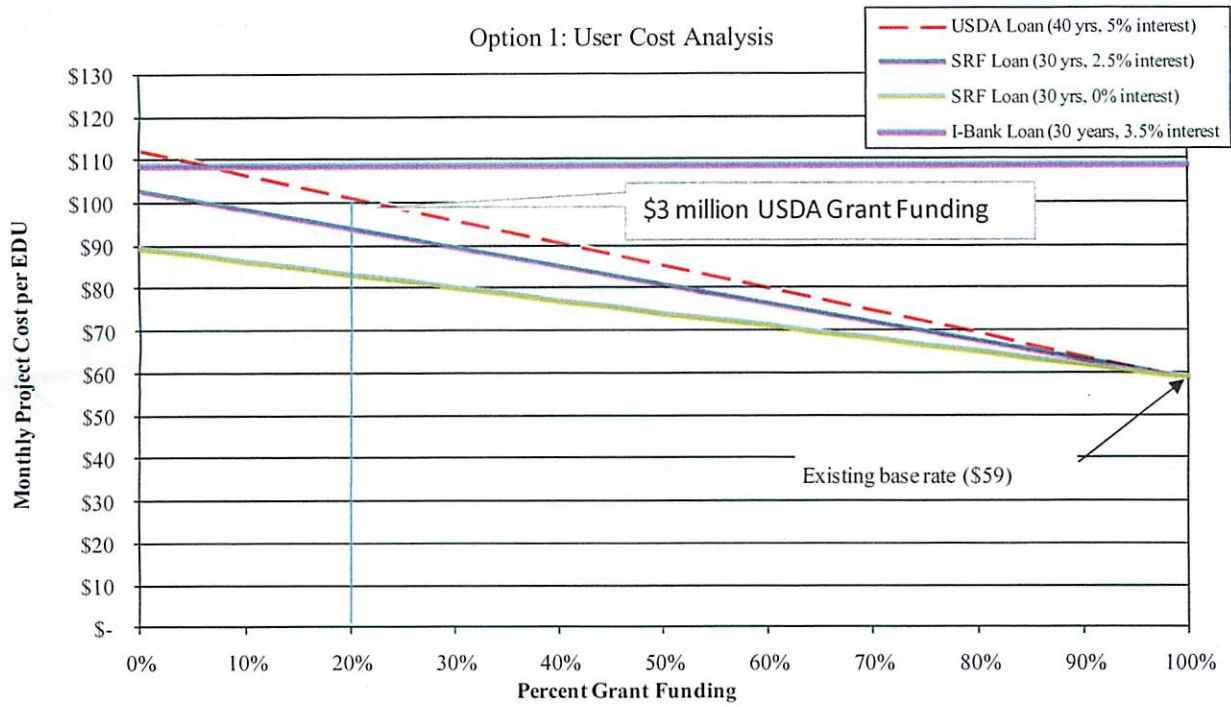
¹ Assumes land costs of \$300,000 for approximately 30 acres, including fees for land attorney and legal documents. Final land costs will be determined based on fair market value appraisals.

² Excludes cost of ERIP property for OPTION 1.

³ See back for detailed line item costs.

Table 2: Summary Comparison of Planning, Permitting and Preliminary Engineering Costs
Rio Dell Wastewater Treatment and Disposal Project
 January 12, 2010

	Option 1	Option 2	Option 3	Status
Project Management	\$ 20,000	\$ 20,000	\$ 20,000	In-progress
Soils and Groundwater Report	\$ 58,000	\$ 58,000	\$ 58,000	Completed
Concept Design/ Layout	\$ 30,000	\$ 30,000	\$ 50,000	
EIR Addendum	\$ 20,000	\$ 25,000	\$ 25,000	
Environmental Permitting				
Army Corps	\$ 12,000			
RWQCB, Water Quality Cert.	\$ 7,500			
DFG- Streambed Alteration	\$ 6,000			
Flood Plain	\$ 7,500	\$ 5,000	\$ 5,000	
Civil Permitting				
Caltrans	\$ 12,000	\$ 12,000	\$ 12,000	
Humboldt County	\$ 4,000	\$ 4,000	\$ 4,000	
North Coast Railroad	\$ 9,000			
Report of Waste Discharge				
Anti-Degradation Analysis	\$ 30,000	\$ 30,000	\$ 30,000	
Standard Form and Documents	\$ 25,000	\$ 25,000	\$ 25,000	
Land Negotiations/ Rights of Way	\$ 60,000	\$ 30,000	\$ 30,000	
California Toxic Rule				
Preliminary WER Evaluation	\$ 9,900	\$ 9,900	\$ 9,900	In-progress
Full Scale Copper WER	\$ 28,000	\$ 28,000	\$ 28,000	
Sanitary Sewer Evaluation Study	\$ 60,000	\$ 60,000	\$ 60,000	
Brownfield Clean Up	unknown	\$ -	\$ -	
TOTALS	\$ 398,900	\$ 336,900	\$ 356,900	



Option 3: User Cost Analysis

