



RIO LINDA/ELVERTA COMMUNITY WATER DISTRICT

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Recommended Plan for Addressing Pressure and Supply Problems Executive Summary

January 28, 2008

Background

On November 19, 2007, the California Department of Public Health (CDPH) issued Compliance Order No. 01-09-07-CO-004 (Compliance Order) to the Rio Linda/Elverta Community Water District (District). The Compliance Order requires the District to correct ongoing water supply and water pressure problems. The Compliance Order imposes a service moratorium directing the District not to add any new service connections or issue any “will serve” letters to potential water users. This service moratorium is currently in effect and will remain in effect until CDPH determines that the District has addressed nine *directives* identified by the Compliance Order.

Directive 6 of the Compliance Order, due January 31, 2008, requires the District complete a study that evaluates:

- a) How much additional source capacity and/or storage capacity is needed;
- b) The options for providing additional source(s) of supply and/or storage facilities to remedy the water supply and water pressure problems;
- c) A cost comparison of these options; and
- d) A discussion of recommended solutions and proposed schedule for implementation.

This **Executive Summary** highlights the findings of the study completed by the District to comply with Directive 6.

Review of District Source Capacity Needs and Low Pressure Problems

The District’s estimated water demand and estimated available source capacity is as follows:

- Maximum day demand is estimated to be 6,800 gpm
- Peak hour demand is estimated to be 10,200 gpm
- Available source capacity is estimated to be 5,900 gpm

This comparison demonstrates that the District is currently not able to meet its peak hour requirements with its present sources of supply. The District has field-confirmed reported low-pressure problems occurring on the east side. Hydraulic modeling further corroborated the presence of low pressure problems and confirmed that the District’s available water supply cannot maintain adequate pressure on the east side.

Proposed Remedies for District Pressure and Supply Problems

In order to correct the pressure problems and comply with the CDPH Compliance Order, the District is planning to increase its source capacity as follows:

- The District has started construction on a new well -- Well No. 14 -- in the District's Westside. This well is expected to be completed by the end of 2009 and will add 2,000 to 2,500 gpm of source water capacity to the system to improve pressure during peak hour conditions on the Westside. Well No. 14 is expected to include groundwater treatment facilities for arsenic.
- The District is planning to add a new well -- Well No. 15 -- to meet peak hour demands in the District's Eastside. This new well is expected to add source water capacity of 1,500 to 2,000 gpm.

To plan for Well No. 15 the District will complete a test well to confirm the capacity and quality of the new well is suitable for the District's needs. The District considered other alternatives to meet peaking needs in the District Eastside, including a storage tank or a permanent service intertie with SSWD. Although the storage tank can meet the peaking needs in the District Eastside, adequate operation of the storage tank depends on the continuous ability of the existing wells in the Eastside to meet the maximum day demand. In case these wells are not able to provide adequate supplies, supplemental supplies may be required through the District intertie with SSWD. The cost of Well No. 15 in comparison to the other alternatives is summarized below:

| Alternative | Minimum Land Requirements | Cost ¹ |
|---|---------------------------|------------------------------|
| Well No. 15 (900 feet) | 0.25 acre | \$2,014,000 |
| 500,000 gallon Steel Tank & Booster Pumps | 0.50 acre | \$1,707,000 |
| SSWD Water Supply & Intertie Pipeline Extension | - | \$1,537,000 ~ \$3,554,000 |

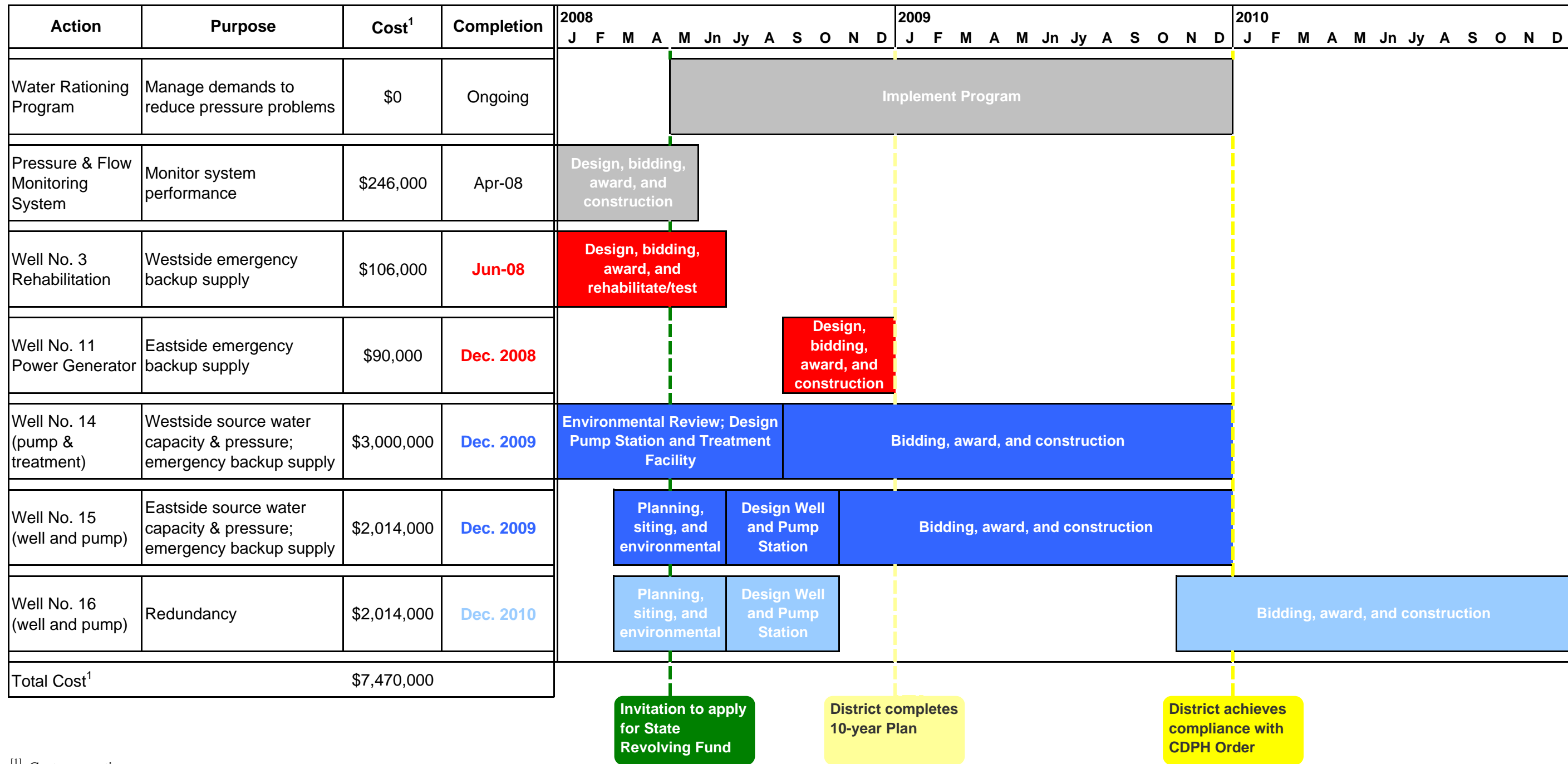
- To meet redundancy and emergency requirements the District will add an additional well to its system -- Well No. 16 -- and will add emergency power generators to Well No. 11 and to each proposed new well -- Well No. 14, No. 15, and No. 16.

Proposed Schedule for Implementation

Figure 1 presents the District planned schedule for implementing recommended improvements for addressing pressure and supply problems, and redundancy and emergency requirements within the existing District service area. With the completion of these recommended improvements, the District will meet the requirements of the Compliance Order.

¹ Cost assumptions: 1- Cost based on January 2008 prices; 2- Cost includes 20% contingency and 20% engineering & construction administration; 3- Cost includes material, labor, and mobilization; 4- Cost does not include operation & maintenance; and 5- Design of facilities based on District adopted standards and specifications.

Figure 1: District Plan to Remedy Existing Pressure and Supply Problems



^[1] Cost assumptions:
 1- Cost is based on January 2008 prices
 2- Cost includes 20% for contingency and 20% for engineering & construction administration
 3- Cost includes material, labor, and mobilization
 4- Cost does not include operation & maintenance
 5- Design of facilities are based on District adopted standards and specifications