

PROJECT NAME: **Well Rehabilitation**

PROJECT ADDRESS: Redlands

PROJECT RELEASE DATE: 2009

PROJECT COST: Airport 1 well - \$38,670, Well 38 - \$33,500

COMPLETION DATE: 2009

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PROJECT DESCRIPTION AND PUBLIC BENEFIT:

The Municipal Utilities and Engineering Department has its wells tested annually by Southern California Edison. These tests are performed to gauge loss of efficiency to help determine when to perform maintenance. Other criteria are also used in determining which well to rehabilitate, such as loss of flow, bearing noise and importance of the source. Once a well is deemed in need of rehabilitation, the pump is pulled out of the well, which is usually hundreds of feet deep, and sent for inspection. Depending on the condition of the pump it will either be rebuilt or replaced. While the pump is out of the well a video camera is sent into the well to determine and document the condition of the well casing. This information is used to determine the amount of work needing to be performed. Usually brushing and chemical treatment is all that is necessary. The pump is then reinstalled in the well, and the well is disinfected, flushed, and water quality tested before being put back in service.

This year the City identified two wells, Airport 1 and Well 38, in need of rehabilitation. After rehabilitation Airport #1 and Well 38, respectfully, had an overall plant efficiency of 75.2% and 77.4% and a combined flow increase of 500 gpm. It is anticipated rehabilitation will not be necessary for at least 5-7 years. In addition to increasing the reliability of these production wells, and increasing their production, the City anticipates a savings of approximately \$18,000 per year in energy costs.