

Mem # 9A

**City of Carson City
Agenda Report**

Date Submitted: September 26, 2006

Agenda Date Requested: 10/5/2006
Time Requested: 5 minutes

To: Mayor and Supervisors

From: Public Works Department - Operations

Subject Title: Update on the Arsenic Reduction Program.

Staff Summary: Carson City has developed an Arsenic Compliance Implementation Plan to achieve compliance with the Arsenic Rule promulgated by the U.S. Environmental Protection Agency which has resulted in a new drinking water standard of 10 parts per billion. The plan also supports the three-year exemption that was approved by the State Environmental Commission on September 6, 2006. The City has not exceeded the new arsenic standard since the rule went into effect on January 23, 2006 and would only need to under drought conditions. In the meantime staff is proceeding with the steps to implement the plan to meet the new standards.

Type of Action Requested: (check one)
 Resolution Ordinance
 Formal Action/Motion Other (No action required))

Does This Action Require A Business Impact Statement: Yes (XX) No

Recommended Board Action: No Action required, Public Works staff will provide the Board of Supervisors with an update on the Arsenic Reduction Program.

Explanation for Recommended Board Action: Carson City has developed an Arsenic Compliance Implementation Plan to achieve compliance with the Arsenic Rule promulgated by the U.S. Environmental Protection Agency, which has resulted in a new drinking water standard of 10 parts per billion. The plan also supports the three-year exemption that was approved by the State Environmental Commission on September 6, 2006. To date, compliance activities have included: 1) monthly monitoring of arsenic concentrations at selected entry points to the water distribution system; 2) pilot testing of three representative arsenic-impacted wells; and 3) a detailed analysis of arsenic concentrations in the distribution system, including an assessment of a monthly Locational Running Annual Average (LRAA) approach to achieve compliance for projected 2009 operating conditions.

The LRAA approach is based on monthly sampling and laboratory analysis of arsenic concentrations from entry points to the water distribution system located immediately down-gradient of the seven existing arsenic-impacted supply wells. LRAA compliance can effectively be applied to Carson City's water system because of the relatively low number of arsenic-impacted wells, relatively low arsenic concentrations in these wells, and a treated water source with a very low arsenic concentration. The LRAA approach includes seasonal treatment of arsenic-impacted wells, limited periods of operating these wells, blending of surface and groundwater supplies, and the possible addition of new low-arsenic supply sources.

The current plan calls for

- Wells 4 and 49 treated using a coagulation filtration system at the wellheads or at a centralized location.
- Well 7 and 47 treated with an adsorption system using partial treatment and re-blending to meet the parameters of the LRAA.
- Well 11 and 45 compliance can be achieved using the monthly LRAA approach without treatment or blending.
- Well 24 requires blending flows with Wells 25 and 41 to meet the parameters of the LRAA.

The LRAA goal of 8 parts per billion is achieved for 2009 average day and maximum day demand conditions, assuming that new supply sources will be available to satisfy peak demands under drought conditions.

Applicable Statue, Code, Policy, Rule or Regulation: N/A

Fiscal Impact: N/A

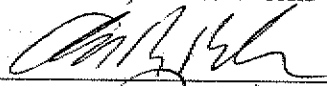
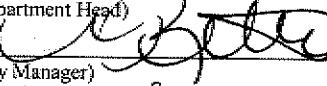

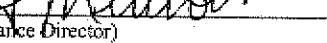
Explanation of Impact: N/A

Funding Source: N/A

Alternatives: N/A

Supporting Material: N/A

Prepared By: Tom Hoffert, Public Works Operations Manager

Reviewed By:  Date: 9/26/06
 (Department Head)
 Date: 9-26-08
 (City Manager)
 Date: 9-26-06
 (District Attorney)
 Date: 9/26/06
 (Finance Director)

Board Action Taken:

Motion: _____ 1) _____ Aye/Nay
 _____ 2) _____

(Vote Recorded By)