

## **Memorandum 14-087 Reallocation of Capital Project Funds for the Water Treatment Plant Disinfection By-Products**

**Memorandum ID:** 14-087  
**Memorandum Status:** Backup

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**TO:** Walt Wrede, City Manager  
**FROM:** Carey Meyer, Public Works Director  
**DATE:** May 21, 2014  
**SUBJECT:** Reallocation of Capital Project Funds

The City of Homer's 2014 operating budget includes \$29,000 for the installation of a mixed oxidant disinfection equipment to reduce disinfection byproducts in our drinking water. Public Works, working with the designers of the water treatment plant, have identified other potential solutions to the disinfection byproduct problem that could be less expensive and more effective than the one authorized in the 2014 budget.

Solutions that need further evaluation include:

- Conversion from sodium hypochlorite to peracetic acid (mixed oxidant).
- Intake aeration or mixing to reduce raw water total carbon concentrations and DBP formation potential.
- Controlling water age in the distribution system.
- Reservoir mixing to increase residence time and reduced chlorine dosage (i.e. increase the "T" and lower the "C" of the CT calculation).
- Enhanced coagulation for additional total carbon removal.

Many of these potential solutions are operational adjustments that could require little capital expenditures. If a capital investment is required, the evaluation of the effectiveness of all alternatives would help secure the necessary ADEC approval to construct.

A study of these alternatives is expected to cost approximately \$18,459.

**Recommendation:** The City Council pass an ordinance reallocating the \$29,000 authorized for the installation of a mixed oxidant chlorination system in the 2014 operating budget to authorize the completion of a study of alternative

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disinfection byproduct creation solutions at a cost of \$18,459.

Related Ordinances **Memorandum - Related Ordinances:** [Ordinance 14-25 Budget Amendment to Reappropriate Water Fund Budget Item to Reduce Disinfection By-Products in the Drinking Water](#)

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