

## Future Treatment Alternatives Study Overview

Washington Aqueduct is currently meeting or exceeding all regulatory standards for treated water. However, as the sciences related to water (such as water chemistry, microbiology, toxicology and public health) are always evolving, Washington Aqueduct wishes to be prepared to deal with any future drinking water quality-related issues. Therefore, Washington Aqueduct has undertaken a Future Treatment Alternatives Study to achieve the following objectives:

- Identify potential future water quality challenges
- Address these challenges by developing appropriate drinking water treatment objectives and water quality goals
- Identify technologies, treatment scenarios, and public education needs to meet these water quality goals



The following tasks are planned as part of this study. Note that these tasks include both technical work as well as stakeholder involvement.

1. **Review Data:** Current treatment process performance and regulatory compliance will be evaluated.
2. **Prioritize Water Quality Issues:** A panel of technical experts and stakeholders will be asked to help identify water quality issues of concern, which may impact treatment performance. Panel members will also assist in developing criteria, which will be used to prioritize the water quality issues.
3. **Evaluate Risk:** A risk evaluation will be conducted to better understand the public health impacts associated with some of these water quality issues and compare treatment strategies based on the potential to reduce risk.
4. **Develop Water Quality Goals:** The project team will then develop appropriate water quality goals for use in future facility planning. Stakeholders will be given an opportunity to review and comment on these goals.
5. **Evaluate Treatment Alternatives:** The project team will then identify treatment and non-treatment alternatives capable of meeting the identified water quality goals. Treatment alternatives may include construction of new facilities (such as UV disinfection or activated carbon) while non-treatment alternatives may include watershed control

programs or development of focused public information campaigns. The panel of technical experts and stakeholders will be involved in the identification of alternatives for further consideration.

The following graphic presents a preliminary timeline of stakeholder involvement:



Next steps that will be completed in future phases of the project include:

- Use a small scale “pilot” system to demonstrate the effectiveness of the recommended treatment alternatives. The results of the testing would be used to refine cost estimates.
- Determine which treatment or non-treatment alternatives are going to be implemented, and develop a budget and implementation plan.
- Design and construct new treatment technologies and/or implement non-treatment strategies.

