

MEETING REPORT
TREATED WATER SYSTEM OPTIMIZATION PLAN
AD HOC COMMITTEE
WEDNESDAY, DECEMBER 21, 2011
8:00 A.M.

Directors: Barbara Balen
Bob Behee

Public: Ron Ringen
John Maciel

Staff: Pete Kampa
Tom Scesa
Ted Allen
Eric Johnson
Glen Nunnelley
Melissa McMullen

Overview of the Treated Water System Optimization Plan Progress to Date

Tom Scesa distributed two memo's that were sent to Kennedy/Jenks Consultants on November 11, 2011 regarding the Treated Water Systems Optimization Plan (TWSOP); 1) Projected 20 Year Growth Rates in Active Water Service Connections by Water Service Area and 2) Projected 20 Year Water Demands by Water Service Area. Mr. Scesa also distributed five consolidation alternative maps for the proposed transmission system.

Pete Kampa stated TUD is in a period of time where the expenditure of funds is not an option. TUD has a decision to make whether to repair a water treatment plant that exist today with money from current rate payers or hold the money back, get by with the system as it stands and look for a future fix. Mr. Kampa stated that the TWSOP will outline some of the future repairs for the water treatment system. This will require major investments of capital to implement these projects which are going to bring long term efficiencies and will reduce the cost eventually. Mr. Kampa reminded the committee that they are making decisions today to help reduce cost for future generations.

Tom Scesa and Ted Allen reviewed the following PowerPoint presentation:

Treated Water System Optimization Study (TWSOP)

Why Plan for the Future

- Vision for Capital Projects
- Investment Efficiency

Past History

- No Long Range Planning
- Water Treatment Plants, Size and Location
- Tanks, Used and Undersized

Project Goal

- ... "develop a plan with a 20 year planning horizon that will provide clear direction to the District for a sustainable treated water system"
- Meeting all State and Federal Regulations
- Reduce Long Term Costs
 - Improvements in infrastructure
 - Reduced Staffing

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Scope

- Treated water only
- Suppositions
 - Ditch can supply water
 - PG&E Contract could be changed if needed
 - Capital Improvement Plan included
 - Operational and maintenance costs included
 - The Plan will need to be reviewed and revised

What Existing Components are Being Studied

- Water Treatment Plants
 - Distribution Systems
 - Storage Tanks and Reservoirs
- What Future Components are Being Planned?
- Water Treatment Plants
 - Transmission Mains
 - Distribution Systems
 - Storage Tanks and Reservoirs

System Planning Criteria

- Population and Growth Projections
- Water Use
- WTP Evaluation and Consolidation
- Existing Distribution System Evaluation
- Future Distribution/Transmission System Evaluation
- Capital Improvement Plan
- Institutional Concerns
- Financial Water Rate and Fee Analysis

System Planning Criteria

- Background Data
- Planning Criteria
- Design Criteria

Population and Growth Projections

- Have we grown?
- Will we grow?
- Where might new connections come from?
- What rate might we grow?

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Water Use

- How much water do we use?
- Who uses what?
- Impact of State requirements

WTP Evaluation and Consolidation

- All Existing WTP's Evaluation
 - Improvements listed
 - Site options
- Consolidation Options
 - 15 alternatives developed
 - Reviewed with a balanced evaluation criteria
 - Focused on 5 alternatives
 - Additional evaluation to be preformed

Existing Distribution System Evaluation

- Reviewed and updated all pipes, pumps, PRV's and storage
- Updated all system models into one model
- Working on calibrating model with field data
- Development of replacement priority list

Future Distribution/Transmission System Evaluation

- What is needed for consolidation?
- What is needed for growth?

Capital Improvement Plan

- What are the future improvements?
 - Water Treatment Plants
 - Transmission Mains
 - Distribution Systems
 - Storage

Institutional Concerns

- CEQA
- CADPH

Financial Water Rate and Fee Analysis

- Economic evaluation of costs
- Impacts to rates
- Impacts to fees

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Ron Ringen suggested that the TWSOP be presented to the Planning Commission in order to gain their support.

Pete Kampa stated that once the TWSOP has been completed and a Capital Improvement Plan is established that includes the replacement of this type of infrastructure, this becomes the basis for mitigation fees.

Tom Scesa stated TUD in the past five years on average has been spending \$2.5 million dollars of its own money on Capital Improvement projects, with grant money included it totals approximately \$4.8 million. Mr. Scesa stated that when you divide this out over a forty year period the average spending for TUD is \$312 million dollars on operations and maintenance, \$192 million for capital improvement with grants, without grants it is approximately \$101 million.

Tom Scesa reviewed the Proposed Transmission System for Consolidation Alternative #1. Mr. Scesa stated for this alternative is designed within 3-5 years there would be a new water treatment plant at Sierra Pines, and within 5-10 years a new plant at Standard. The water treatment plants that would be consolidated in 3-5 years would be Upper Basin and Brentwood. Within 5-10 years Mono Village, and Phoenix Lake Park would also be consolidated. Mr. Scesa stated that Scenic View, Crystal Falls, Cedar Ridge and Ponderosa plants would all be reconstructed within 3-5 years. Sonora plant within 5-10, Greenley and Columbia plants within 20-40 years and Tuolumne, Big Hill and Monte Grande plants within 40 plus years since they were recently built. Mr. Scesa stated this alternative out of the five is minimal as for consolidation compared to the other alternatives.

Ted Allen reviewed the Proposed Transmission System for Consolidation Alternative #2. Mr. Allen stated this alternative is designed for a new water treatment plant within 3-5 years at Sierra Pines, 3-10 years a new plant at Gardella. The water treatment plants that will be consolidated within 3-5 years would be Upper Basin, Crystal Falls, Brentwood and Cedar Ridge. Within 5-10 years Ponderosa, 3-10 years Phoenix Lake Park, Scenic View, Mono Village, Sonora and Greenley. Tuolumne City and Monte Grande plants would be consolidated within 40 plus years. In 20-40 years Columbia and Big Hill plants would be reconstructed. Mr. Allen stated in this alternative the District has broken up into different zones. There is the upper zone which consists of Upper Basin, Crystal Falls, Brentwood, Cedar Ridge, Ponderosa, Tuolumne City and Monte Grande. The second zone which is referred to as the middle zone consists of Phoenix Lake Park, Scenic View, Mono Village, Sonora, and Greenley. The lower zone consists of Columbia and Big Hill. These same zones were used in alternative #3.

Ted Allen reviewed the Proposed Transmission System for Consolidation Alternative #3. Mr. Allen stated this alternative is designed for a new water treatment plant at Sierra Pines within 3-5 years and a new plant within 3-10 years at Standard. The plants that would be consolidated; Upper Basin, Crystal Falls, Brentwood and Cedar Ridge within 3-5 years, Ponderosa in 5-10, Phoenix Lake Park, Scenic View, Mono Village, Sonora and Greenley in 3-10 years and Tuolumne City and Monte Grande in 40 plus. In 20-40 years Columbia and Big Hill would be reconstructed. Mr. Allen stated the only difference between alternative #2 and #3 is in #3 the water treatment plant is at Standard (adjacent to the existing Mono Village water treatment plant) and is now serving all of that system, as opposed to the Gardella property in alternative #2.

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Ted Allen reviewed the Proposed Transmission System for Consolidation Alternative #4. Mr. Allen stated this alternative is designed for a new water treatment plant at Sierra Pines within 3-5 years. The plants that would be consolidated; Upper Basin, Crystal Falls, Brentwood and Cedar Ridge within 3-5 years. Scenic View, Phoenix Lake Park, Mono Village, Ponderosa and Sonora within 5-10 years. Columbia within 20-40 years and Tuolumne City, Monte Grande and Greenley 40 plus years.

Ted Allen reviewed the Proposed Transmission System for Consolidation Alternative #5. Mr. Allen stated this alternative is designed for a new water treatment plant at Sierra Pines within 3-5 years. The plants to be consolidated; Upper Basin, Crystal Falls, Brentwood, and Cedar Ridge within 3-5 years. Scenic View, Phoenix Lake Park, Mono Village, Ponderosa and Sonora within 5-10 years, Columbia within 20-40 years and Big Hill, Tuolumne City, Monte Grande and Greenley 40 plus years. Mr. Allen stated the alternative #5 is very similar to alternative #4 with the exception in alternative #5 being a complete consolidation.

Director Balen stated that she really wanted to thank the Committee and TUD staff for the open and honest discussion concerning the TWSOP.

Director Behee thanked TUD staff for their work on the TWSOP. Director Behee stated that he felt there were some excellent alternatives and looked forward to see the continuing progress on this project.

Director Balen stated that she feels it is of great importance that the TUD Board meets with the Tuolumne County Board of Supervisors to discuss the TWSOP and how it affects the entire county not just TUD. Director Behee concurred with Director Balen.

Committee Recommendation: To continue to develop the Treated Water System Optimization Plan.