



PAJARO VALLEY WATER MANAGEMENT AGENCY

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PROJECTS AND FACILITY OPERATIONS COMMITTEE MEETING

**Water Resources Center - 500 Clearwater Lane
Watsonville, California**

Wednesday, June 24, 2015, 3:00 p.m.

[NOTE: What follows is the Mission Statement from the former Water Quality and Project Operations Committee.]

Mission Statement: The Water Quality and Project Operations Committee serves to advise the Board and Staff of the Pajaro Valley Water Management Agency on programs related to water supply, quality and operations related to Basin Management Plan facilities. The Committee also serves to communicate issues and concerns regarding water quality and project operations between the Agency, landowners and growers within the Agency's service area.

A G E N D A

1. Welcome and Introductions
2. Public and Member comments
3. Consider Approving Minutes of last Projects and Facility Operations Committee Meeting
4. Discussion of Project and Facility Operations Committee Mission and By-Laws
5. Basin Management Plan Projects Update
 - a. "Early out" grant-funded water supply projects
 - b. Longer-term projects
 - c. Discussion of potential short-term solutions for using College Lake water, including diverting to sewer at Orchard Park
6. Facility Operations Update
7. Discuss Future Agenda Items
8. Next Meeting: July 29, 2015 at 3:00 PM
9. Adjourn

PVWMA is a state-chartered local Agency formed "to efficiently and economically manage existing and supplemental water supplies in order to prevent further increase in, and to accomplish continuing reduction of, long-term overdraft and to provide and insure sufficient water supplies for present and anticipated needs within the boundaries of the Agency. It is anticipated that long-term overdraft problems may not be solved unless supplemental water supplies are provided. The water management Agency should, in an efficient and economically feasible manner, utilize supplemental water and available underground storage and should manage the groundwater supplies to meet the future needs of the basin." This agenda is subject to revision and may be amended prior to the scheduled meeting. If amended, a Final Agenda will be posted at the PVWMA offices at 36 Brennan Street, Watsonville, 72 hours prior to the meeting. Copies of the Final Agenda will be available at the Board Meeting. This Agenda shall be made available upon request in alternative formats to persons with a disability, as required by the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132) and the Ralph M. Brown Act (Cal. Govt. Code Sec. 54954.2). Persons requesting a disability-related modification or accommodation should contact PVWMA's Administrative Division Manager at (831) 722-9292 during regular business hours, at least 24 hours prior to the time of the meeting.

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**PROJECTS and FACILITY OPERATIONS
COMMITTEE MEETING**

Water Resources Center
500 Clearwater Lane, Watsonville, California 95076

Draft Meeting Minutes

Wednesday April 29, 2015, 3:00 p.m.

Meeting Attendees

Dale Huss	Warren Koenig
Paul Faurot	Mary Bannister
Amy Newell	Jesus "Chuy" Martinez
Rich Persoff	Brian Lockwood
Frank Capurro	Mike Wagoner
	Domonique Pinata (by phone)

- 1. Welcome and Introductions.** Dale called the meeting to order at 3:00 p.m.
- 2. Public and Member comments.** Amy asked about the status of effort to increase delivered use, particularly at night and during the shoulder months. Dale provided an update.
- 3. Consider Approving prior Projects and Facility Operations Committee Meeting.** Amy requested clarification of a sentence in item 4. The sentence will be revised from "Rich stated that he hoped this committee would facilitate dialogue and consensus building about the proposed and other projects" to "Rich stated that he hoped this committee would facilitate dialogue and consensus building about the proposed **BMP projects** and other projects." Amy moved approval subject to the proposed revision, Warren seconded. The minutes were approved.
- 4. Discussion of Project and Facility Operations Committee Mission and By-Laws.** Dale suggested that one of the three growers appointed to the committee should be from outside the delivered water zone. He also suggested that we have a mission or a purpose, but not both as they are redundant. Rich recommended the committee not be limited to discussing only BMP projects, but all potential projects. Amy recommended that members be selected at the December member and Board members are selected at the January board meeting as usual. This item will be continued to the next meeting.
- 5. Basin Management Plan Projects Update.** Brian summarized the status of delivered water enhancement projects: staff and consultants, under direction from the board of directors, are moving forward with four capital projects 1) Recycled water storage and distribution pump improvements, 2)

Blend well pipeline improvement project that will improve delivered water reliability and quality, 3) K1 pipeline project to serve approximately 180 irrigated acres of ag land impacted by seawater intrusion in the Bluff Road area of Northern Monterey County, and 4) Basin monitoring network improvements (new monitoring wells). Roundtable discussion ensued about the details of the proposed projects. Dale commended the Agency on its ability to obtain grant funding. Amy asked if the agency had any experience with the firm who provided the apparent low bid for the Blend Well Pipeline Project. Mary responded that they've provided local references that we will use for follow-up.

- 6. Facility Operations Update.** Chuy gave the update. Year to date 924 AF of supplemental irrigation supply have been delivered, with 75 % of the supply composed of recycled water. Last week operators started the daytime/nighttime rotation. Staff is considering initiating contact with the food processors who distribute effluent to the WWTP. Locally, peaches, sardines, and squid processing effluent have caused biologic and chemical instabilities in the treatment process. Mary, Chuy and Dave will get in touch with the City's Source Control Manager, Jim Crowley, to get contact information and set up meetings with key people at the processors' facilities. Mike noted that he is seeing a reduction in flows coming into the WWTP due to conservation related activities. Amy and Dale agreed that reduced flows as a result of conservation are a serious issue. With respect to the Harkins Slough Facility, only 60 AF were diverted for recharge this year.
- 7. Water Quality Update.** Brian presented water quality results: Since April 1, 2009 and through April 3, 2015, staff has collected 563 water quality samples from turnouts. The long-term average concentration of selected constituents is as follows: Total Dissolved Solids – 612 mg/L; Chloride – 104 mg/L; Sodium – 94 mg/L; Nitrate as NO₃ – 27; SAR – 2.55; E.C. – 1.05 millimhos/cm. Based on staff's recommendation due the frequency of data collection, the committee decided to have the water quality update occur on a quarterly basis: January, April, July, and October.
- 8. Crisis Communications Plan Update.** Mary reported that she's reviewed the plan and identified sections that need updates in terms of text and personnel. She will bring this item back to the committee in a couple of months. Dale spoke about the spinach crisis of 9/14/2006 and the importance of having a crisis communication plan in place.
- 9. Discuss Future Water Quality and Project Operations Committee Agenda Items.** 1) Leave the Bylaws on the agenda and include comments; 2) Crisis Communication Plan when ready (June); 3) Potential short term solutions for utilizing College Lake water and diverting water to sewer at Orchard Park (as a predecessor to the BMP College Lake Project).
- 10. Next Meeting:** Wednesday, June 24, 2015, at 3:00 p.m.
- 11. Meeting Adjourned at 4:10 p.m.**

PAJARO VALLEY WATER MANAGEMENT AGENCY

PROJECTS AND FACILITY OPERATIONS COMMITTEE BYLAWS

ARTICLE I: PURPOSE

The purpose of the Projects and Facility Operations Committee ("Committee") is to advise the Board of Directors ("Board") and Staff of the Pajaro Valley Water Management Agency ("Agency") on projects and programs related to water supply, quality and operations of facilities identified in the Agency's Basin Management Plan. The Committee also serves to communicate issues and concerns regarding water quality and project operations between the Agency, landowners and growers within the Agency's service area.

ARTICLE II: STRUCTURE

The Committee shall constitute a standing committee of the Agency and shall meet until otherwise directed by the Board. The Committee's subject matter jurisdiction is limited to matters expressed herein, together with all matters necessarily incidental thereto. Except as otherwise expressly provided in these bylaws or by resolution of the Board, the Committee does not make binding decisions on those matters; rather, the Committee makes recommendations to the Board.

ARTICLE III: OFFICERS

1. Officers of the Committee shall consist of a Chair and Vice Chair, which shall be selected from the members of the Committee and elected by a majority vote of the members present. Either the Chair or the Vice Chair shall be selected from one of the Directors serving on the Committee.
2. Election of the officers shall take place annually at the January meeting of the Committee.
3. The Vice Chair shall assume the role of Chair in the event the Chair is absent.
4. Vacated elected offices shall be filled by an election by the Committee at the next regularly scheduled meeting of the Committee after the vacancy is noticed.

ARTICLE IV: MEMBERS

1. The Committee shall be comprised of three Directors from the Board, three growers in the Delivered Water Zone, and one member at-large.
- ~~1-2. Membership shall be for a term of one year.~~
3. Membership shall be reviewed annually by the Committee at its December meeting. The Committee shall make a recommendation regarding membership to the Board at the Board's January meeting.
- ~~2-4. At the Board's January meeting, the Board shall select the Directors, growers, and member at-large to serve on the Committee annually at its January meeting, taking into consideration the Committee's recommendation.~~
~~The Directors serving on the Committee shall nominate individuals to fill the remaining positions on the Committee, which shall be subject to final approval by the Board at its January meeting.~~
- ~~3- Membership shall be reviewed annually by the Committee at its December meeting.~~
- 4-5. Three successive absences of a member without notifying the Committee shall be cause for the member to be dropped from the Committee. In such instance, and a new member shall be

Commented [LV1]: Ordinance No. 2000-02 established the Water Quality and Operations Committee as part of the Harkins Slough Project implementation. The committee was responsible for providing input to on-going operations and working with PVWMA in establishing a routine water quality monitoring and reporting program. Ordinance No. 2004-01 clarified the function of the committee and specified the procedures for appointment to and service on the committee.

The Agency now operates several other projects in addition to the Harkins Slough Project, which has necessitated a change in the scope of the committee.

Once a decision is made on the proposed bylaws, staff will propose an amendment to Ordinance No. 2004-01 to once again clarify the function of the committee and specify the procedures for appointment and service on the committee, including adoption of the bylaws.

Commented [LV2]: For discussion: Comment provided by Director Persoff suggesting that discussion of new projects be included in the scope of this Committee.

Commented [LV3]: Changes in this section clarify the process for nominating and approving committee members, as suggested by Director Newell.

nominated [by the Committee at the next regularly scheduled meeting and approved by the Board thereafter.](#)

ARTICLE V: MEETINGS

1. The Committee shall comply with all applicable laws, including the Ralph M. Brown Act.
2. Committee meetings shall be held regularly on the last Wednesday of every month at 3:00 p.m. at a location to be determined and noticed on meeting agendas. Any future regular meeting of the Committee may be moved if approved by a majority of the members present at a regular meeting.
3. The Chair or Vice Chair may call a special meeting of the Committee after proper notification.
4. A majority of the members of the Committee, including at least one Director, constitutes a quorum of the Committee.
5. Any decision of the Committee and/or recommendation to the Board shall require a majority vote by the members present for passage.
6. Every member shall have one vote.
7. Meetings shall be open to the public and members of other governmental agencies. Visitors may express their opinions or make requests during public comment.
8. All meetings shall be conducted pursuant to *Rosenberg's Rules of Order*.

ARTICLE VI: ADMINISTRATION

1. Agency staff shall prepare the agenda for each regular and special meeting of the Committee. ~~The Chair, in cooperation with Agency staff, shall prepare an annual report for review by the Committee no later than the December meeting date. The annual report shall include a summary of Committee activities, actions, and outcomes for the previous year, and current status of continuing efforts. The annual report shall be forwarded to the Board after review by the Committee.~~
2. These Bylaws shall be reviewed annually for recommended updates or more often if requested by the Committee and/or the Board.

MEMORANDUM

DATE: June 11, 2015
MEETING OF: June 24, 2015
TO: Projects & Facility Operations Committee
FROM: Senior Hydrologist
RE: Capital Projects Planning and Funding Update

INTRODUCTION

The water resources of the Pajaro Valley are at risk due to long-term groundwater overdraft. Declining groundwater levels have caused seawater to flow into the freshwater aquifers underlying the valley. To balance the basin and stop seawater intrusion, the Agency has developed a Basin Management Plan (BMP) and implemented several water supply projects that include a Recycled Water Facility, a Managed Aquifer Recharge and Recovery Facility, Blend Wells, a connection to the City of Watsonville's potable water system, and over 20 miles of conveyance pipeline called the Coastal Distribution System (CDS). As documented through the Agency's existing monitoring network, these facilities have made significant progress towards stopping seawater intrusion and groundwater overdraft by reducing the volume of groundwater production through the use of a supplemental irrigation supply and enhanced conservation measures. However, more work needs to be done to balance the basin and stop seawater intrusion. The BMP identified the new projects and programs needed to solve the problem and accomplish the basin management goals. This memo summarizes the status of BMP projects currently under implementation.

DISCUSSION

Agency staff and consultants are currently in the design phase for four capital projects:

- 1) Recycled water storage and distribution pump improvements;
- 2) Blend well pipeline improvement project that will improve delivered water reliability and quality;
- 3) K-1 pipeline project to serve approximately 180 irrigated acres of ag land impacted by seawater intrusion in the Bluff Road area of Northern Monterey County; and
- 4) Basin monitoring network improvements (new monitoring wells).

1) Recycled Water Storage and Distribution Pump Improvements

Additional storage at the Recycled Water Facility will allow the agency to treat and distribute up to approximately 750 acre-feet more recycled water per year than is currently being delivered. Two storage tanks have been designed: 1.5 million gallon capacity and 0.5 million gallon capacity. This storage will allow staff to treat night-time flows and then deliver the water during the day. New distribution pumps will allow operators to meet customer demand on the Coastal Distribution System more efficiently, saving power and money. Construction of both tanks and new distribution pumps is estimated to cost \$7.2 million and will be funded in part by a Proposition 84 grant and a State Revolving Fund (SRF) low interest financial agreement. Staff recommend constructing the 1.5 million gallon tank and new distribution pumps prior to constructing the 0.5 million gallon tank. The construction cost of the 1.5 million gallon tank and necessary pump station improvements is estimated to cost \$5.1 million. A summary of the engineering and environmental status for this component of the project follows.

- Engineering Update:
 - o Design for this project is proceeding on schedule
 - o 100 % Plans and Specifications: Received on February 10, 2015

- Constructability / Bidability review has been completed the Covello Group
- Advertise Bids: Pending SRF financial agreement (summer 2015)
- Board Review and Consideration of Construction Contract: at board meeting about one month after advertising bids
- Construction Complete: approximately one year after issuing notice to proceed (summer / fall 2016)
- Environmental Update:
 - Work is complete. The Board adopted Resolution 2015-10 Adopting CEQA Addendum for Recycled Water Storage and Distribution Pump Station Improvements
 - PVWMA has received a dated and stamped copy of the Notice of Determination from the State Clearinghouse.
- Funding Update:
 - This project received \$900,000 of funding through the Proposition 84 Integrated Regional Water Management Round 2 Implementation Grant.
 - This project is part of the SRF Funding package that also includes treatment improvements such as additional filtration and disinfection. The SRF Package is in development and a funding agreement may be ready for board consideration this summer, pending the State's review.

2) Blend Well Pipeline Improvement Project

The Blend Well Pipeline Improvements will allow the Agency to supply water from its supplemental wells to the main 42-inch diameter recycled water distribution pipeline through a new 2,800 linear foot pipeline, improving system reliability by reducing the dependence on the potable blend water from the City of Watsonville while improving delivered water quality system-wide. The engineers estimate for construction costs of the Blend Well Pipeline Improvement project is \$1 million. The project will be funded in part from an Emergency Drought Grant. To qualify for the grant, the Agency must award a construction contract by June 1, 2015 (this has been pushed back from April 1 due to an extension granted by DWR).

- Engineering Update
 - Design was completed in February 2015.
 - Bid Process
 - Advertise for Bids: March 30, 2015 to April 29, 2015
 - Mandatory pre-bid meeting on April 14, 2015
 - Bid opening on April 29, 2015
 - Specialty Construction, Inc. – \$841,400
 - Ranger Pipelines – \$1,021,500
 - Anderson Pacific – \$1,065,750
 - Board Review and Consideration of Construction Contract
 - On May 20, 2015, the Board approved Resolution 2015-13 (CEQA Addendum), and Resolution 2015-14 (award of contract to Specialty Construction).
 - Construction Complete: by February 2016. The contract documents specify construction activities take place between October 2015 and February 2016
- Environmental Update (Work is complete):
 - Staff received copies of the final CEQA Addendum, Biological Resources Report, Cultural Resources Report, and all supporting files on April 10, 2015.
 - A signed Notice of Determination was delivered to the Santa Cruz County Clerk's Office the week of April 13, 2015.
- Legal Update:
 - Staff has been in contact with all landowners and growers who will be affected by construction activities.

- Letters regarding easements and project information have been distributed.
- Funding Update:
 - This project is part of the \$1.8 million Integrated Regional Water Management Plan Emergency Drought Emergency Grant package.
 - To qualify for the grant, the agency must award a construction contract on at least one of the proposed pipeline projects by June 1. This project is on schedule to meet that requirement.

3) K1 Pipeline Project

The K1 Pipeline Project includes approximately 6,800 linear feet of new distribution pipeline to provide supplemental water to about 180 irrigated acres of prime farmland in the Bluff Road area of Northern Monterey County. This area is significantly impacted by seawater intrusion, and farming operations are suffering as a result. The estimated construction cost of the K1 Pipeline Project is \$2.7 million and will be funded in part from an IRWM Emergency Drought Grant. It is anticipated that it will take 3 to 5 months to construct.

- Engineering Update:
 - Complete (100 %) Plans and Specifications delivered on April 17, 2015
 - Bid Process
 - Advertise for Bids: May 11, 2015 to June 5, 2015
 - Mandatory pre-bid meeting on May 27, 2015
 - Bid opening on June 10, 2015
 - Granite Construction – \$1,481,686
 - Specialty Construction, Inc. – \$1,753,838
 - Garney Construction – \$1,916,535
 - California Trenchless, Inc. – \$2,218,281
 - Monterey Peninsula Engineering – \$2,239,919
 - Floyd Johnston Construction – \$2,824,032
 - Board Review and Consideration of Construction Contract: July 22, 2015
 - Construction Complete: fall/winter of 2015
- Environmental Update:
 - Nearly complete
- Legal Update:
 - Staff has been in contact with all landowners and growers who will be affected by construction activities.
 - Legal descriptions for the easements have been completed
- Funding Update:
 - This project is part of the \$1.8 million Integrated Regional Water Management Plan Emergency Drought Emergency Grant package.

4) Basin Monitoring Network Improvements

Monitoring changes to groundwater storage and quality are a key to determining if the BMP projects and programs are meeting their stated goals. Staff has been conducting a detailed analysis of the agency's existing monitoring network and has identified strategic locations for new monitoring sites to improve the network. An ideal site, located away from most pumping wells but centrally located within the valley is on the agency owned property at 36 Brennan Street. Monitoring wells installed at this location will collect data from the significant aquifers in the Valley: Alluvial, Upper and Lower Aromas, and Purisima Aquifers. The deepest well may be drilled as deep as 900 feet.

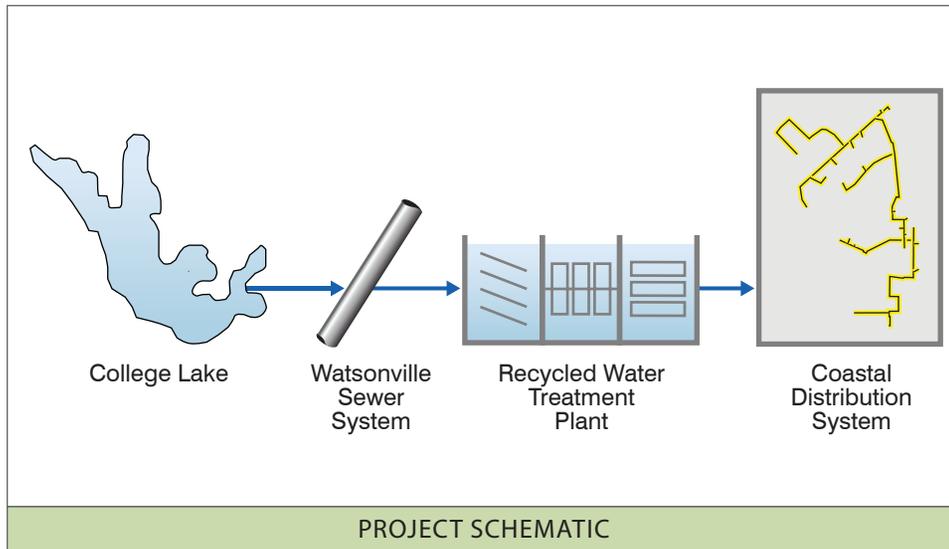
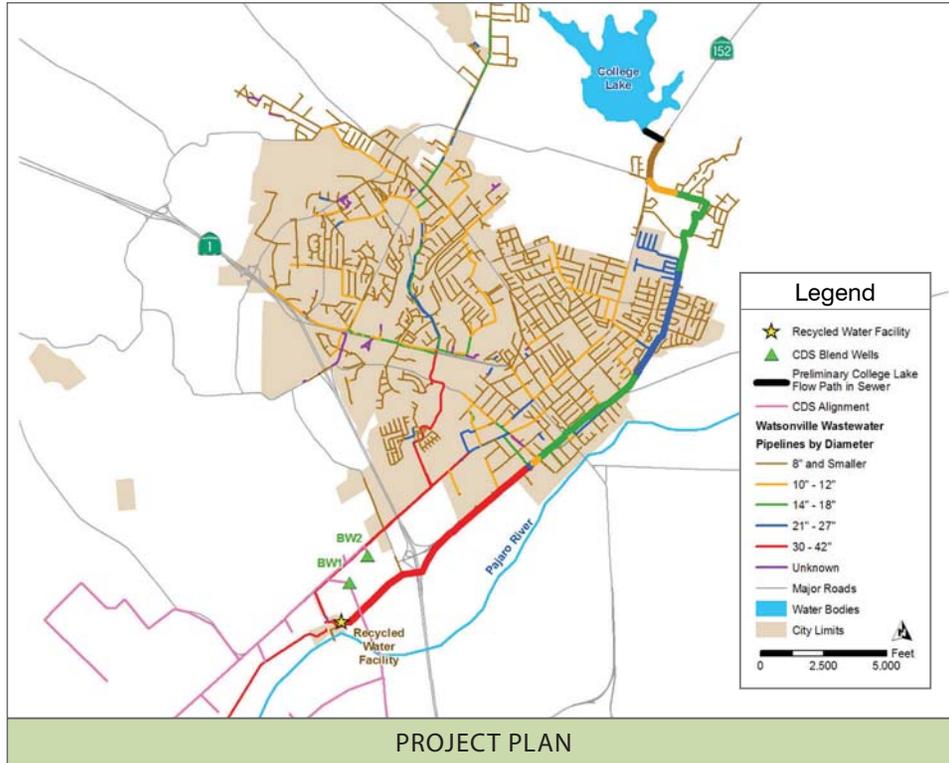
- Planning Update

- Construction Contract with Maggiora Brothers in the amount of \$173,800 was approved at March 18, 2015 Board of Directors meeting.
- Notice to Proceed has been issued
- Waiting on Permit from County
- Construction Complete: Summer 2015
- Funding Update:
 - This project is budgeted in the agency's fiscal year 2014/2015 budget. A budget amendment will be required should the construction schedule be delayed.

ATTACHMENT

- None

S-12: College Lake to Recycled Water Treatment Plant in Summer



Background:

College Lake is a seasonal water body in a fault-controlled depression located to the north of Holohan Road west of Highway 152, near St. Francis Cemetery. The lake captures runoff from an 11,000-acre watershed during the winter. This project would divert water from College Lake and Pinto Lake to the Watsonville sanitary sewer collection system during the summer for conveyance to the Watsonville wastewater treatment plant, where it would be treated and pumped to the CDS. Approximately 4.3 miles of new pipe, dedicated to transmit College Lake water to the existing sewer would need to be constructed. The recycled water treatment plant would need to be expanded to meet increased flow volumes.

Yield:

2,000 AFY

Capital Cost:

\$34.4 Million

Cost would include approximately 4.3 miles of new conveyance pipeline, pump station and filtration, sewer system upgrade, treatment plant upgrades, 1.0 MG storage tank, and land acquisition (150 acres at \$5,000 per acre).

Operations & Maintenance:

\$650,000/Year

Annualized Capital and O&M Cost:

\$3.2 Million (30-year capital recovery at 6% interest)

Water Quality Considerations:

Water from College Lake would reduce the TDS of delivered water.

Implementation Issues:

Permitting issues related to steelhead habitat and water rights.

Implementation Timeline:

Mid-Term*

*Timelines:

Near-Term = 0 - 10 years

Mid-Term = 10 - 20 years

Long-Term = 20 - 30 years

Cost:

S-12: College Lake to Recycled Water Treatment Plant in Summer 2012 Basin Management Plan Update Pajaro Valley Water Management Agency	
Project Element	Cost Estimate
New Conveyance Pipeline	\$6,800,000
College Lake Headgate, Diversion Pumps, & Pinto Lake Diversion	\$1,300,000
Pump Station (3-200HP Vertical Turbine Pumps)	\$900,000
Environmental Habitat and Mitigation	\$1,000,000
Treatment Plant Expansion	
1.0 MG Storage Tank	\$1,800,000
Additional Pumps (2- 350hp Vertical Turbine)	\$200,000
DensaDeg equipment	\$800,000
Filter equipment	\$800,000
UV equipment	\$700,000
Installation @ 25%	\$600,000
Civil & Mechanical	\$2,200,000
E&I/C	\$1,200,000
Total Direct Cost	\$17,100,000
Construction Contingency (30%)	\$5,100,000
General Conditions (20%)	\$3,400,000
Contractor Overhead and Profit (10%)	\$1,700,000
Sales Tax (8.25% of 50% of Direct Cost)	\$700,000
Total Construction Cost	\$28,000,000
Engineering, Legal, Admin, Permits (20%)	\$5,600,000
Land Acquisition (150 acres @ \$5,000/acre) ⁽¹⁾	\$800,000
Total Estimated Project Implementation Cost	\$34,400,000
Annualized Construction Cost ⁽²⁾	\$2,500,000
O & M Reservoir	\$3,000
O&M Pipeline (1%)	\$80,000
O & M Pump and Treatment (2.5%)	\$450,000
Pump Power (2200 gpm for 667AFY, for 1650 hours at \$0.15/kW-h)	\$120,000
Total Annualized Cost	\$3,200,000
Annual Yield AF	2,000
Unit Cost (\$/AF)	\$1,600

Notes:

(1) Property Values are per correspondence with Chuck Allen's (College Lake farmland = \$5,000/acre)

(2) Annualized costs are based on a 30-year capital recovery period at 6% interest.