



Board Meeting Agenda

September 8, 2016 at 10:00 a.m.
2nd Floor – Yosemite Conference Room
156 S. Broadway, Turlock CA

Table with 4 columns: Chair (Gary Soiseth), Vice Chair (Chris Vierra), Director (Ken Lane), Director (Amy Bublak), Interim General Manager (Michael Brinton), Board Secretary (Jennifer Land), Interim General Counsel (Phaedra A. Norton)

NOTICE REGARDING NON-ENGLISH SPEAKERS: The Stanislaus Regional Water Authority (SRWA) meetings are conducted in English and translation to other languages is not provided. Please make arrangements for an interpreter if necessary.
EQUAL ACCESS POLICY: If you have a disability which affects your access to public facilities or services, please contact the Board Secretary. The Board is committed to taking all reasonable measures to provide access to its facilities and services. Please allow sufficient time for the Board to process and respond to your request.
NOTICE: Pursuant to California Government Code Section 54954.3, any member of the public may directly address the Stanislaus Regional Water Authority Board on any item appearing on the agenda, including Consent Calendar and Scheduled items, before or during the Board's consideration of the item.
AGENDA PACKETS: Prior to the Stanislaus Regional Water Authority Board meeting, a complete Agenda Packet is available for review on the SRWA's website at www.stanrwa.org and in the Board Secretary's Office at 156 S. Broadway, Suite 230, Turlock, during normal business hours. Materials related to an item on this Agenda submitted to the Board after distribution of the Agenda Packet are also available for public inspection in the Board Secretary's Office. Such documents may be available on the SRWA's website subject to staff's ability to post the documents before the meeting.

- 1. A. CALL TO ORDER
B. SALUTE TO THE FLAG
2. PROCLAMATIONS, RECOGNITIONS, APPOINTMENTS, ANNOUNCEMENTS & PRESENTATIONS
A. Appointment: Board Secretary, effective September 1, 2016
3. A. SPECIAL BRIEFINGS: None
B. STAFF UPDATES
1. Interim General Manager Updates (Brinton)
2. Finance Director Report (Jacobs-Hunter)
3. Teleconferencing Under the Brown Act and Procedure for Establishing a Meeting Quorum (Norton)

**C. CONSULTANT UPDATES:**

1. West Yost Associates will provide the Board with a project status update. (*Nakano*)

**D. PUBLIC PARTICIPATION**

This is the time set aside for members of the public to directly address the Stanislaus Regional Water Authority Board on any item of interest to the public that is within the subject matter jurisdiction of the SRWA and to address the Board on any item on the agenda, including Consent Calendar items. You will be allowed five (5) minutes for your comments. If you wish to speak regarding an item on the agenda, you may be asked to defer your remarks until the Board addresses the matter.

No action or discussion may be undertaken on any item not appearing on the posted agenda, except that the Board may refer the matter to staff or request it be placed on a future agenda.

**4. DECLARATION OF CONFLICTS OF INTEREST AND DISQUALIFICATIONS**

**5. CONSENT CALENDAR**

Information concerning the consent items listed hereinbelow has been forwarded to each Board member prior to this meeting for study. Unless the Chair, a Board member or member of the audience has questions concerning the Consent Calendar, the items are approved at one time by the Board. The action taken by the Board in approving the consent items is set forth in the explanation of the individual items.

- A. Motion:** Accepting minutes of Regular Meeting of August 11, 2016

**6. PUBLIC HEARINGS: None.**

Challenges in court to any of the items listed below, may be limited to only those issues raised at the public hearing described in this notice, or in written correspondence delivered to the Stanislaus Regional Water Authority at, or prior to, the public hearing.

**7. SCHEDULED MATTERS**

- A.** Request to approve an Agreement with West Yost Associates for Wet Well Design Services for the Surface Water Supply Project in an amount not to exceed \$390,159; appropriate \$390,160 to account number 950-53-552.51800\_001 "Wet Well Design and Construction Management" for Wet Well Design Services to be funded via contributions from SRWA participating agencies. (*Brinton*)

**Recommended Action:**

*Motion:* Approving an Agreement with West Yost Associates for Wet Well Design Services for the Surface Water Supply Project in an amount not to exceed \$390,159

*Resolution:* Appropriating \$390,160 to account number 950-53-552.51800\_001 "Wet Well Design and Construction Management" for Wet Well Design Services to be funded via contributions from SRWA participating agencies (*Brinton*)

- B.** Request to accept the Technical Memorandum dated August 22, 2016 – Accepting preliminary pipeline sizing for the treated water transmission mains to the City of Ceres (30-inch diameter) and the City of Turlock (42-inch diameter), sized to deliver the ultimate 45 mgd of treated water supplies of 15 mgd and 30 mgd to the cities of Ceres and Turlock respectively, and for use in the Project environmental analysis.

*Motion:* Accepting preliminary pipeline sizing for the treated water transmission mains to the City of Ceres (30-inch diameter) and the City of Turlock (42-inch diameter), sized to deliver the ultimate 45 mgd of treated water supplies of 15 mgd and 30 mgd to the cities of Ceres and Turlock respectively, and for use in the Project environmental analysis

- C. Notification of the composition of the Technical Advisory Committee (TAC) and the composition of the Government Relations/Public Affairs Working Group (*Brinton*)

**Recommended Action:**

*None: Information Only*

**8. MATTERS TOO LATE FOR THE AGENDA**

The Brown Act generally prohibits any action or discussion of items not on the posted agenda. However, there are three specific situations in which a legislative body can act on an item not on the agenda:

- 1) When a majority decides there is an "emergency situation" (as defined for emergency meetings).
- 2) When two-thirds of the members present (or all members if less than two-thirds are present) determine there is a need for immediate action and the need to take action "came to the attention of the local agency subsequent to the agenda being posted." This exception requires a degree of urgency. Further, an item cannot be considered under this provision if the legislative body or the staff knew about the need to take immediate action before the agenda was posted. A "new" need does not arise because staff forgot to put an item on the agenda or because an applicant missed a deadline.
- 3) When an item appeared on the agenda of, and was continued from, a meeting held not more than five days earlier.

A legitimate immediate need can be acted upon even though not on the posted agenda by following a two-step process. First, make two determinations: (a) that there is an immediate need to take action and (b) that the need arose after the posting of the agenda. The matter is then "placed on the agenda." Second, discuss and act on the added agenda item.

**9. BOARD ITEMS FOR FUTURE CONSIDERATION**

**10. BOARD COMMENTS**

Board members may provide a brief report on notable topics of interest. The Brown Act does not allow discussion or action by the legislative body.

**11. NEXT MEETING DATE:** *September 22, 2016 – Regular Meeting*

**12. CLOSED SESSION:** None.

**13. ADJOURNMENT**

From: Michael Brinton, Interim General Manager

Prepared by: Michael Brinton, Interim General Manager

**1. ACTION RECOMMENDED:**

Motion: Appointing Tish Foley as the SRWA Board Secretary, effective September 1, 2016

**2. DISCUSSION OF ISSUE:**

Since September 2015, Jennifer Land has been filling the position of SRWA Board Secretary. She has filled this position on a part-time basis in addition to her duties as City Clerk Trainee for the City of Turlock. Ms. Land will soon be appointed as the City Clerk of the City of Turlock which will limit her availability to perform duties for the SRWA.

It is proposed that Tish Foley be appointed as SRWA Board Secretary, effective September 1, 2016. Members of the SRWA TAC have interviewed Ms. Foley and are confident she can more than adequately fill this position as she has extensive secretarial and administrative experience. Ms. Foley will assist the SRWA on a part-time basis.

Upon appointment of the new Board Secretary, the contact information (i.e., mailing address, phone number and email address) for the SRWA will be updated on the SRWA website and letterhead.

**3. FISCAL IMPACT / BUDGET AMENDMENT:**

No additional impact as the 2016-17 budget contains appropriation for staff time.

**4. INTERIM GENERAL MANAGER'S COMMENTS:**

Recommend approval.

**5. ENVIRONMENTAL DETERMINATION:**

N/A

**6. ALTERNATIVES:**

A. Review other options for filling secretarial needs.



STANISLAUS REGIONAL WATER AUTHORITY  
156 S. Broadway, Ste. 230, Turlock, CA 95380  
209-668-5540 (p) 209-668-5668 (f)

September 8, 2016

To: SRWA Board

From: Michael Brinton, Interim General Manager

**SUBJECT: Interim General Manager Report**

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The members of the Technical Advisory Committee (TAC) have continued to meet with West Yost Associates on various items in preparation of the design of the raw water supply infrastructure, water treatment facility, regional treated water transmission mains and local distribution system. The items covered since the last SRWA Board meeting include the following:

- Transmission Pipeline Sizing
- Tuolumne River Historical Water Quality Assessment
- Treatment Process Alternatives
- Proposed Right Of Way Management Plan Outline
- Public Outreach Plan, including modification of the SRWA Web Site
- Met with WTP Operations Consultants Regarding Alternative Project Delivery Methods
- Met with the Gualco Group to strategize positioning the Authority for grant and loan funding opportunities
- Opened discussions with TID representatives regarding the possible long-term lease of TID's Raw Water Facilities, which will enable SRWA to apply for SRF funding opportunities
- Continued work on the Project Schedule and Program Management Plan
- Working with West Yost, began development of a 2-month Board "look-ahead" schedule

Mr. Nakano will provide a more in depth review of these items. The project continues to make progress in defining the design requirements.



**STANISLAUS REGIONAL WATER AUTHORITY**  
 156 S. Broadway, Ste. 230, Turlock, CA 95380  
 209-668-5540 (p) 209-668-5668 (f)

**August 11, 2016**  
**10:00 a.m.**  
**2<sup>nd</sup> Floor – Yosemite Room**  
**156 S. Broadway, Turlock CA**



**DRAFT**

**Minutes**  
**Regular Meeting**  
**SRWA Board**

1. **A. CALL TO ORDER:** Chair Soiseth called the meeting to order at 10:05 a.m.  
 PRESENT: Director Lane, Director Bublak, Vice Chair Vierra, and Chair Soiseth  
 ABSENT: None
- B. SALUTE TO THE FLAG**
2. **PROCLAMATIONS, PRESENTATIONS, RECOGNITIONS, ANNOUNCEMENTS & APPOINTMENTS:** None
3. **A. SPECIAL BRIEFINGS:** None
- B. STAFF UPDATES:**
  1. Interim General Manager Mike Brinton provided an overview of items discussed at recent Technical Advisory Committee (TAC) meetings including design preparation of the raw water supply infrastructure, water treatment facility, treated water transmission mains, and integration with each City's local distribution system. Mr. Brinton also spoke about proposals received from Brown and Caldwell and West Yost Associates for wet well design services.
  2. Finance Director Kellie Jacobs-Hunter provided information on expenditures for Fiscal Year 2016-17 through July 2016.
- C. CONSULTANT UPDATES:**
  1. West Yost Associates Gerry Nakano provided a project update including completion of the quick start program and plans for moving into the next phase of the project. Discussions over the last month have included the selection process for governmental relations and public affairs consultant, cost allocation workshops, public outreach plan and proposals for wet well design. Approval of the proposed water quality sampling plan was received from The Department of Drinking Water on July 25, 2016. Board representatives attended the dedication ceremony of the Woodland-Davis facility on July 28, 2016. Mr. Nakano also provided the Executive Summary Monthly Progress Report for June 2016.
- D. PUBLIC PARTICIPATION:** None



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4. DECLARATION OF CONFLICTS OF INTEREST AND DISQUALIFICATIONS: None

5. CONSENT CALENDAR:

**Action:** Motion by Director Bublak, seconded by Director Lane, to adopt the consent calendar. Motion carried 4/0 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Yes

A. *Motion:* Accepting minutes of Regular Meeting of July 14, 2016.

6. PUBLIC HEARINGS: None

7. SCHEDULED MATTERS:

A. West Yost Associates Gerry Nakano presented the staff report on the request to accept Technical Memorandum–Preliminary Phasing and Water Treatment Plant Sizing for the SRWA Surface Water Supply Project (WTP Sizing TM), dated June 16, 2016.

Director Lane requested information regarding the process for expanding to Phase 2 and if sizing will be accounted for now.

Vice Chair Vierra noted the project will significantly help reserve groundwater for future needs. Chair Soiseth requested information regarding the positive impact this project will have on groundwater pumping be included in the public outreach component.

Chair Soiseth opened public participation. There being no public response, Chair Soiseth closed public participation.

**Action:** Motion by Director Bublak, seconded by Vice Chair Vierra, Accepting Technical Memorandum–Preliminary Phasing and Water Treatment Plant Sizing for the SRWA Surface Water Supply Project (WTP Sizing TM), dated June 16, 2016. Motion carried 4/0 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Yes

B. West Yost Associates Lindsay Smith presented the staff report on the request to concur with the recommended funding strategy which includes the following key actions, among others: select and work closely with a government relations/public affairs consultant to create and support funding opportunities; and identify, track and pursue grant and low interest loan Project funding opportunities for which the Project is well-suited.

Ms. Smith presented an overview of the application process and the recommended strategies and steps for various funding options.





Chair Soiseth opened public participation. There being no public response, Chair Soiseth closed public participation.

**Action:** Motion by Vice Chair Vierra, seconded by Director Lane, Concurring with the recommended funding strategy which includes the following key actions, among others: select and work closely with a government relations/public affairs consultant to create and support funding opportunities; and identify, track and pursue grant and low interest loan Project funding opportunities for which the Project is well-suited (including the ten (10) actions listed in the discussion below). Motion carried 4/0 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Yes

- C. West Yost Associates Lindsay Smith presented the staff report on the request to concur with the treatment performance goals recommended by the Technical Advisory Committee (TAC) which are focused on the following key goals: meet current regulations with comfort; employ reasonably robust treatment trains; use proven processes; design for treatment flexibility; minimize corrosion and discolored water concerns; and make upfront investments to reduce long-term O&M costs.

Chair Soiseth opened public participation. There being no public response, Chair Soiseth closed public participation.

**Action:** Motion by Director Lane, seconded by Director Bublak, Concurring with the treatment performance goals recommended by the Technical Advisory Committee (TAC) which are focused on the following key goals: meet current regulations with comfort; employ reasonably robust treatment trains; use proven processes; design for treatment flexibility; minimize corrosion and discolored water concerns; and make upfront investments to reduce long-term O&M costs, (as summarized in the discussion below). Motion carried 4/0 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Yes

- D. West Yost Associates Gerry Nakano presented the staff report on the request to concur with the recommended preliminary transmission facilities and pipeline alignments for the Raw Water Pipeline, and City of Ceres and City of Turlock Treated Water Pipeline alignments presented in the Project Alignment Evaluation Technical Memorandum.

Mr. Nakano spoke about initial meetings held with the County to discuss the costs for encroachment into the right-of-way and noted additional conversations will be held to determine if costs can be reduced based on benefits to the region.

Chair Soiseth opened public participation. There being no public response, Chair Soiseth closed public participation.







**Action:** Motion by Director Bublak, seconded by Director Lane, Concurring with the recommended preliminary transmission facilities and pipeline alignments for the Raw Water Pipeline, and City of Ceres and City of Turlock Treated Water Pipeline alignments presented in the Project Alignment Evaluation Technical Memorandum. Motion carried 4/0 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Yes

- E. Turlock Municipal Services Director Michael Cooke presented the staff report on the request to approve an Agreement with The Gualco Group, Inc. for Government Relations and Public Affairs Consulting, in an amount not to exceed \$80,000; appropriate \$80,000 to account number 950-53-552.43011 "Government Relations/Public Affairs" for Government Relations and Public Affairs Consulting to be funded via contributions from SRWA participating agencies.

Chair Soiseth excused himself from the dais for this item due to his employer's relationship with The Gualco Group. Chair Soiseth noted although he does not have a legal conflict, he elected not to participate in the proposal process or the vote for this item. Vice Chair Vierra represented the Board in the discussion.

Vice Chair Vierra opened public participation. There being no public response, Vice Chair Vierra closed public participation.

**Action:** Motion by Director Bublak, seconded by Director Lane, approving an Agreement with The Gualco Group, Inc. for Government Relations and Public Affairs Consulting, in an amount not to exceed \$80,000. Motion carried 3/1 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Abstain

Resolution No. 2016-004 Appropriating \$80,000 to account number 950-53-552.43011 "Government Relations/Public Affairs" for Government Relations and Public Affairs Consulting to be funded via contributions from SRWA participating agencies was introduced by Director Bublak, seconded by Director Lane, and carried 3/1 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Abstain

Chair Soiseth returned to the dais.

Vice Chair Vierra requested additional information be provided at a future meeting to explain the differences between "Design/Build" and "Design/Build/Operate" concepts.



- F. Finance Director Kellie Jacobs-Hunter presented the staff report on the request to approve an Agreement with Maze & Associates Accountancy Corporation for Professional Auditing Services, in an amount not to exceed \$5,400; appropriate \$400 to account number 950-53-552.43055\_002 "Consultant Audit" for Professional Auditing Services to be funded via contributions from SRWA participating agencies.

Chair Soiseth opened public participation. There being no public response, Chair Soiseth closed public participation.

**Action:** Motion by Director Lane, seconded by Director Vierra, Approving an Agreement with Maze & Associates Accountancy Corporation for Professional Auditing Services, in an amount not to exceed \$5,400. Motion carried 4/0 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Yes

Resolution No. 2016-005 Appropriating \$400 to account number 950-53-552.43055\_002 "Consultant Audit" for Professional Auditing Services to be funded via contributions from SRWA participating agencies was introduced by Director, seconded by Director, and carried 4/0 by the following vote:

Director Lane	Director Bublak	Vice Chair Vierra	Chair Soiseth
Yes	Yes	Yes	Yes

8. **MATTERS TOO LATE FOR THE AGENDA:** None
9. **BOARD ITEMS FOR FUTURE CONSIDERATION:** None
10. **BOARD COMMENTS:**

Director Bublak noted her appreciation for the opportunity to tour the Woodland-Davis facility which provided project clarification and an opportunity to see a successful operating facility.

Vice Chair Vierra thanked staff and the consultants for establishing positive and memorializing momentum, laying the groundwork for the future.

Chair Soiseth expressed appreciation to TAC and staff for assisting the Board in moving the project into the desired direction.

11. **NEXT MEETING DATE:** August 25, 2016 – *Regular Meeting*

Chair Soiseth stated the Board will continue to evaluate the need to meet twice a month.



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12. **CLOSED SESSION:** None

13. **ADJOURNMENT:**

Motion by Director Bublak, seconded by Director Lane, to adjourn at 10:58 a.m. Motion carried unanimously.

RESPECTFULLY SUBMITTED



DRAFT

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Jennifer Land  
Board Secretary

From: Michael Brinton, Interim General Manager

Prepared by: Michael Brinton, Interim General Manager

**1. ACTION RECOMMENDED:**

Motion: Approving an Agreement with West Yost Associates for Wet Well Design Services for the Surface Water Supply Project in an amount not to exceed \$390,159

Resolution: Appropriating \$390,160 to account number 950-53-552.51800\_001 "Wet Well Design and Construction Management" for Wet Well Design Services to be funded via contributions from SRWA participating agencies

**2. DISCUSSION OF ISSUE:**

The Technical Advisory Committee has been working with its Program Manager, West Yost Associates, on the design parameters for the Surface Water Supply Project. As part of this process, it was determined that it is necessary to gain a better understanding of the water quality of the water being supplied from the Tuolumne River in order to determine the proper treatment process to be used in the design of the Project.

Initially samples will be taken directly from the Tuolumne River; however it is desirable to know the quality of the water after it passes through the infiltration gallery. Furthermore, it is important to understand the operational capacity of the infiltration gallery which was installed in the bed of the Tuolumne River approximately 20 years ago. For these two important reasons, it is advantageous to construct the Wet Well prior to the construction of the main treatment facility.

A preliminary design of the Wet Well was completed by Brown and Caldwell a number of years ago for TID. This agreement is for the final design of the Wet Well. Proposals were requested and obtained from Brown and Caldwell and from West Yost Associates for this Project.

The proposals were reviewed by staff and it was determined that the proposal submitted by West Yost Associates best suited our needs. They have suggested several approaches for consideration in the design and construction of the improvements that appear to have merit and will result in saving time and money.

**3. FISCAL IMPACT / BUDGET AMENDMENT:**

The cost for the design of the Wet Well was not included in the 2016-17 Fiscal Year budget for the SRWA. Therefore, staff is currently requesting a budget appropriation in the amount of \$390,160 to account number 950-53-552.51800\_001 "Wet Well Design and Construction Management" to fund this project. The cost will be funded via contributions from the SRWA participating agencies.

**4. INTERIM GENERAL MANAGER'S COMMENTS:**

Recommend approval.

**5. ENVIRONMENTAL DETERMINATION:**

N/A

**6. ALTERNATIVES:**

A. The alternative would be to design and construct the Wet Well improvements at the same time as the remaining treatment plant facilities. This approach is not recommended because of the need to have water samples obtained through the infiltration gallery to aid in the design of the Water Treatment Plant. Furthermore, the infiltration gallery has never been operated and, while unlikely, its operational capacity may be more limited than its design capacity. Delaying the construction of the Wet Well would result in the need to rely on a number of assumptions during the design process and in possible change orders to the facility in the latter stages of construction as more information becomes available.



**AGREEMENT FOR SPECIAL SERVICES**  
**between**  
**STANISLAUS REGIONAL WATER AUTHORITY**  
**and**  
**WEST YOST ASSOCIATES**  
**for**  
**Wet Well Design Revision, Surface Water Supply Project**

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**THIS AGREEMENT** is made this 8<sup>th</sup> day of September, 2016, by and between the **STANISLAUS REGIONAL WATER AUTHORITY**, a Joint Powers Authority of the State of California hereinafter referred to as "SRWA" and West Yost Associates, an engineering firm, hereinafter referred to as "CONSULTANT."

**WITNESSETH:**

**WHEREAS**, in accordance with California Government Code §37103, SRWA has a need for engineering consulting services in conjunction with the Wet Well Design Revision as part of the Surface Water Supply Project; and

**WHEREAS**, CONSULTANT has represented itself as duly trained, qualified, and experienced to provide such special service, hereinafter referred to as "Services."

**NOW, THEREFORE**, the parties hereto mutually agree as follows:

**1. SCOPE OF WORK:** CONSULTANT shall furnish all labor, equipment, materials and process, implements, tools, and machinery, except as otherwise specified, which are necessary and required to provide the Services and shall perform such special services in accordance with the standards of its profession and the specifications attached hereto as Exhibit A. CONSULTANT shall provide Services that are acceptable to SRWA.

**2. PERSONNEL AND EQUIPMENT:** CONSULTANT shall provide all personnel needed to accomplish the Services hereunder. CONSULTANT shall additionally acquire, provide, maintain, and repair, at its sole cost and expense, such equipment, materials, and supplies as CONSULTANT shall reasonably require to accomplish said Services.

**3. SAFETY REQUIREMENT:** All Services and merchandise must comply with California State Division of Industrial Safety orders and O.S.H.A.

**4. COMPENSATION:** SRWA agrees to pay CONSULTANT in accordance with Exhibit B as full remuneration for performing all Services and furnishing all staffing and materials called for in Exhibit A and for performance by CONSULTANT of all of its duties and obligations under this Agreement. In no event shall the sum of this Agreement exceed three hundred ninety thousand one hundred and fifty nine and no/100<sup>ths</sup> Dollars (\$390,159). CONSULTANT agrees that compensation shall be paid in the manner and at the times set forth below:

(a) Invoices: CONSULTANT shall submit dated invoices to SRWA specifying the date, location and service rendered, and the charge therefor.

(b) Payment:

(1) All payments by SRWA shall be made in arrears, after satisfactory service, as determined and approved by SRWA, has been provided. Payment shall be made by SRWA no more than thirty (30) days from SRWA's receipt of invoice.

(2) SRWA shall normally pay by voucher or check within ten (10) working days after each meeting at which payments can be authorized, provided that SRWA receives the invoice at least five (5) working days prior to SRWA's meeting date.

(3) If SRWA disputes any items on an invoice for a reasonable cause, which includes but is not limited to unsatisfactory service, SRWA may deduct that disputed item from the payment, but shall not delay payment for the undisputed portions. The amounts and reasons for such deletions shall be documented to CONSULTANT within fifteen (15) working days after receipt of invoice by SRWA. SRWA shall assign a sequential reference number to each deletion.

(4) If dispute is settled, payment shall be by voucher or check payable to and mailed to CONSULTANT within five (5) working days of dispute settlement.

(5) SRWA reserves the right to only pay for such services rendered to the satisfaction of SRWA.

**5. TERM OF AGREEMENT:** This Agreement shall become effective upon approval of the SRWA Board and end upon completion of the work, subject to SRWA's availability of funds.

**6. INSURANCE:** CONSULTANT shall not commence work or services under this Agreement until CONSULTANT has obtained SRWA's approval regarding all insurance requirements, forms, endorsements, amounts, and carrier ratings, nor shall CONSULTANT allow any subcontractor to commence work or services on a subcontract until all similar insurance required of the subcontractor shall have been so obtained and approved. CONSULTANT shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work or services hereunder by CONSULTANT, its agents, representatives, employees or subcontractors. Failure to maintain or renew coverage or to provide evidence of renewal may constitute a material breach of contract.

(a) Minimum Scope of Insurance: When applicable, coverage shall be at least as broad as:

(1) Insurance Services Office Commercial General Liability coverage (occurrence Form CG 00 01) with an additional insured endorsement (form CG 20 10 for ongoing operations and 20 37 for products/completed operations), to be approved by the Stanislaus Regional Water Authority.

(2) Insurance Services Office Form CA 00 01 covering Automobile Liability, Code 1 (any auto).

(3) Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

(4) Errors and Omissions/Professional Liability Insurance.

(b) Minimum Limits of Insurance: CONSULTANT shall maintain limits no less than:

(1) General Liability (including operations, products and completed operations): \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

(2) Automobile Liability: \$1,000,000 per occurrence for bodily injury and property damage.

(3) Workers' Compensation: as statutorily required by the State of California. Employer's Liability: \$1,000,000 per accident for bodily injury or disease.

(4) Errors and Omissions/Professional Liability: \$1,000,000 per claim.

(c) Deductibles and Self-Insured Retentions: Upon request of SRWA, any deductibles or self-insured retentions must be declared to and approved by SRWA. At the option of SRWA, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects SRWA, its elective and appointive boards, officers, agents, employees, and volunteers; or (2) CONSULTANT shall provide a financial guarantee satisfactory to SRWA guaranteeing payment of losses and related investigations, claim administration and defense expenses.

(d) Other Insurance Provisions: The commercial general liability policy shall contain, or be endorsed to contain, the following provisions:



(1) SRWA, its elective and appointive boards, officers, agents, employees, and volunteers are to be covered as additional insured with respect to liability arising out of work or operations performed by or on behalf of CONSULTANT, including materials, parts or equipment furnished in connection with such work or operations, which coverage shall be maintained in effect for at least three (3) years following the completion of the work specified in the contract. General liability coverage can be provided in the form of an endorsement to CONSULTANT's insurance (at least as broad as CG 20 10 for ongoing operations and CG 20 37 for products/completed operations), or as a separate Owners and Contractors Protective Liability policy providing both ongoing operations and completed operations coverage.

(2) For any claims related to this project, CONSULTANT's insurance coverage shall be primary insurance as respects SRWA and any insurance or self-insurance maintained by SRWA shall be excess of CONSULTANT's insurance and shall not contribute with it.

(3) In the event of cancellation, non-renewal, or material change that reduces or restricts the insurance coverage afforded to SRWA under this Agreement, the insurer, broker/producer, or CONSULTANT shall provide SRWA with thirty (30) days' prior written notice of such cancellation, non-renewal, or material change.

(4) Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of Section 2782 of the Civil Code.

(e) Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

(f) Verification of Coverage: CONSULTANT shall furnish SRWA with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by SRWA before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive CONSULTANT'S obligation to provide them. SRWA reserves the right, at any time, to require complete, certified copies of all required insurance policies and endorsements.

(g) Waiver of Subrogation: With the exception of professional liability, CONSULTANT hereby agrees to waive subrogation which any insurer of CONSULTANT may acquire from CONSULTANT by virtue of the payment of any loss. The commercial general liability policy and workers' compensation policy shall be endorsed to contain a waiver of subrogation in favor of SRWA for all work performed by CONSULTANT, its agents, employees, independent contractors and subcontractors. CONSULTANT agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.

(h) Subcontractors: CONSULTANT shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All insurance coverage for subcontractors shall be subject to all of the requirements stated herein.

**7. INDEMNIFICATION:** CONSULTANT shall indemnify, defend, and hold harmless SRWA and its elective and appointive boards, officers, agents, employees, and volunteers from and against any and all claim, demand, cost, or liability that arises out of, pertains to, or relates

to, the negligence, recklessness, or willful misconduct of CONSULTANT and its employees or agents in the performance of services under this contract, but this indemnity does not apply to liability for damages arising from the sole negligence, active negligence, or willful misconduct of SRWA.

**8. INDEPENDENT CONTRACTOR RELATIONSHIP:** All acts of CONSULTANT, its agents, officers, and employees and all others acting on behalf of CONSULTANT relating to the performance of this Agreement, shall be performed as independent contractors and not as agents, officers, or employees of SRWA. CONSULTANT, by virtue of this Agreement, has no authority to bind or incur any obligation on behalf of SRWA. CONSULTANT has no authority or responsibility to exercise any rights or power vested in the SRWA. No agent, officer, or employee of the SRWA is to be considered an employee of CONSULTANT. It is understood by both CONSULTANT and SRWA that this Agreement shall not under any circumstances be construed or considered to create an employer-employee relationship or a joint venture.

CONSULTANT, its agents, officers and employees are and, at all times during the terms of this Agreement, shall represent and conduct themselves as independent contractors and not as employees of SRWA.

CONSULTANT shall determine the method, details and means of performing the work and services to be provided by CONSULTANT under this Agreement. CONSULTANT shall be responsible to SRWA only for the requirements and results specified in this Agreement, and, except as expressly provided in this Agreement, shall not be subjected to SRWA's control with respect to the physical action or activities of the CONSULTANT in fulfillment of this Agreement. CONSULTANT has control over the manner and means of performing the services under this Agreement. CONSULTANT is permitted to provide services to others during the same period service is provided to SRWA under this Agreement. If necessary, CONSULTANT has the responsibility for employing other persons or firms to assist CONSULTANT in fulfilling the terms and obligations under this Agreement.

If in the performance of this Agreement any third persons are employed by CONSULTANT, such persons shall be entirely and exclusively under the direction, supervision, and control of CONSULTANT. All terms of employment including hours, wages, working conditions, discipline, hiring, and discharging or any other term of employment or requirement of law shall be determined by the CONSULTANT.

It is understood and agreed that as an independent contractor and not an employee of SRWA neither the CONSULTANT or CONSULTANT'S assigned personnel shall have any entitlement as a SRWA employee, right to act on behalf of the SRWA in any capacity whatsoever as an agent, or to bind the SRWA to any obligation whatsoever.

It is further understood and agreed that CONSULTANT must issue W-2 forms or other forms as required by law for income and employment tax purposes for all of CONSULTANT'S personnel.

As an independent contractor, CONSULTANT hereby indemnifies and holds SRWA harmless from any and all claims that may be made against SRWA based upon any contention by any third party that an employer-employee relationship exists by reason of this Agreement.

**9. VOLUNTARY TERMINATION:** SRWA may terminate this Agreement without cause or legal excuse by providing thirty (30) days' written notice to CONSULTANT.

**10. TERMINATION OF STATED EVENT:**

(a) Termination on Occurrence of Stated Events. This Agreement shall terminate automatically on the date on which any of the following events occur: (1) bankruptcy or insolvency of CONSULTANT, (2) legal dissolution of CONSULTANT, or (3) death of key principal(s) of CONSULTANT.

(b) Termination by SRWA for Default of CONSULTANT. Should CONSULTANT default in the performance of this Agreement or materially breach any of its provisions, at its option SRWA may terminate this Agreement by giving written notification to CONSULTANT. The termination date shall be the effective date of the notice. For the purposes of this section, material breach of this Agreement shall include but not be limited to any of the following: failure to perform required services or duties, willful destruction of SRWA's property by CONSULTANT, dishonesty or theft.

(c) Termination by CONSULTANT for Default of SRWA. Should SRWA default in the performance of this Agreement or materially breach any of its provisions, at its option CONSULTANT may terminate this Agreement by giving written notice to SRWA. The termination date shall be the effective date of the notice. For the purposes of this section, material breach of this Agreement shall include but not be limited to any of the following: failure to cooperate reasonably with CONSULTANT, willful destruction of CONSULTANT's property by SRWA, dishonesty or theft.

(d) Termination for Failure to Make Agreed-Upon Payments. Should SRWA fail to pay CONSULTANT all or any part of the payments set forth in this Agreement on the date due, at its option CONSULTANT may terminate this Agreement if the failure is not remedied within thirty (30) days after CONSULTANT notifies SRWA in writing of such failure to pay. The termination date shall be the effective date of the notice.

(e) Termination by SRWA for Change of CONSULTANT'S Tax Status. If SRWA determines that CONSULTANT does not meet the requirements of federal and state tax laws for independent contractor status, SRWA may terminate this Agreement by giving written notice to CONSULTANT. The termination date shall be the effective date of the notice.

(f) In the Event of Termination. If this Agreement is terminated pursuant to this Paragraph, CONSULTANT shall cease all its work on the project as of the termination date and shall see to it that its employees, subcontractors and agents are notified of such termination and cease their work. If SRWA so requests, and at SRWA's cost, CONSULTANT shall provide sufficient oral or written status reports to make SRWA reasonably aware of the status of CONSULTANT'S work on the project. Further, if SRWA so requests, and at SRWA's cost, CONSULTANT shall deliver to SRWA any work products whether in draft or final form which have been produced to date.

If the Agreement is terminated pursuant to any of the subsections contained in this paragraph, SRWA will pay CONSULTANT an amount based on the percentage of work completed on the termination date, this percentage shall be determined by SRWA in its sole discretion. If the Agreement is terminated pursuant to the subparagraph entitled Termination by

SRWA for Default of CONSULTANT, CONSULTANT understands and agrees that SRWA may, in SRWA's sole discretion, refuse to pay CONSULTANT for that portion of CONSULTANT'S services which were performed by CONSULTANT on the project prior to the termination date and which remain unacceptable and/or not useful to SRWA as of the termination date.

**11. CONFORMANCE WITH FEDERAL AND STATE LAW:** All equipment, supplies and services used by CONSULTANT in the performance of this Agreement shall conform to the laws of the government of the United States and the State of California.

**12. NONDISCRIMINATION:** In connection with the execution of this Agreement, CONSULTANT shall not discriminate against any employee or applicant for employment because of age, race religion, color, sex, or national origin. CONSULTANT shall take affirmative action to insure that applicants are employed, and the employees are treated during their employment, without regard to their age, race, religion, color, sex or national origin. Such actions shall include, but not be limited to, the following: employment, promotions, demotions or transfer; recruitment or recruitment advertising; layoff or termination; rate of pay or other forms of compensation; and selection for training, including apprenticeship. CONSULTANT shall also comply with the requirement of Title VII of the Civil Rights Act of 1964 (P.L. 88-352) and with all applicable regulations, statutes, laws, etc., promulgated pursuant to the civil rights acts of the government of the United States and the State of California now in existence or hereafter enacted. Further, CONSULTANT shall comply with the provisions of Section 1735 of the California Labor Code.

**13. TIME:** Time is of the essence in this Agreement.

**14. ENTIRE AGREEMENT AND MODIFICATION:** This Agreement supersedes all previous Agreements and constitutes the entire understanding of the parties hereto. CONSULTANT shall be entitled to no other benefits than those specified herein. No changes, amendments or alterations shall be effective unless in writing and signed by both parties. CONSULTANT specifically acknowledges that in entering into and executing this Agreement, CONSULTANT relies solely upon the provisions contained in this Agreement and no others.

**15. OBLIGATIONS OF CONSULTANT:** Throughout the term of this Agreement, CONSULTANT shall possess, or secure all licenses, permits, qualifications and approvals legally required to conduct business. CONSULTANT warrants that it has all of the necessary professional capabilities and experience, as well as all tools, instrumentalities, facilities and other resources **necessary** to provide the SRWA with the services contemplated by this Agreement. CONSULTANT further represents that it will make findings, render opinions, prepare factual presentations, and provide professional advice and recommendations regarding this project consistent with the standard of care, diligence and skill ordinarily exercised by professional consultants in similar circumstances in accordance with current, generally accepted professional practices.

**16. OWNERSHIP OF DOCUMENTS:** All reports, data, drawings, plans, **designs**, specifications, graphics, calculations, working papers, models, flow diagrams, visual aids, and other incidental work or materials furnished hereunder shall become and remain the property of the SRWA, and may be used by SRWA as it may require without any additional cost to SRWA. SRWA's use or reuse of CONSULTANT'S work product for any purpose other than pursuant to this Agreement shall be at SRWA's sole risk, and SRWA shall indemnify and hold harmless CONSULTANT for such use or reuse. No reports shall be used by the CONSULTANT for purposes other than this contract without the express prior written consent of SRWA.

**17. NEWS AND INFORMATION RELEASE:** CONSULTANT agrees that it will not issue any news releases in connection with either the award of this Agreement, or any subsequent amendment of or efforts under this Agreement, without first obtaining review and approval of said news releases from SRWA through the Board Chair.

**18. INTEREST OF CONSULTANT:** CONSULTANT warrants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. CONSULTANT warrants that, in performance of this Agreement, CONSULTANT shall not employ any person having any such interest. CONSULTANT agrees to file a Statement of Economic Interests with the Board Secretary at the start and end of this contract if so required at the option of SRWA.

**19. AMENDMENTS:** Both parties to this Agreement understand that it may become desirable or necessary during the execution of this Agreement, for SRWA or CONSULTANT to modify the scope of services provided for under this Agreement. Any material extension or change in the scope of work shall be discussed with SRWA and the change and cost shall be memorialized in a written amendment to the original contract prior to the performance of the additional work.

Until a change order is so executed, SRWA will not be responsible to pay any charges CONSULTANT may incur in performing such additional services, and CONSULTANT shall not be required to perform any such additional services.

**20. PATENT/COPYRIGHT MATERIALS:** Unless otherwise expressly provided in the contract, CONSULTANT shall be solely responsible for obtaining the right to use any patented or copyrighted materials in the performance of this Agreement. CONSULTANT shall furnish a warranty of such right to use to SRWA at the request of SRWA.

**21. CERTIFIED PAYROLL REQUIREMENT:** For CONSULTANTS performing field work on public works contracts on which prevailing wages are required, CONSULTANT shall comply with the provisions of the California Labor Code including, but not limited to, Section 1776 regarding payroll records, and shall require its subconsultants and subcontractors to comply with that section as may be required by law.

**22. PARTIAL INVALIDITY:** If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

**23. WAIVER:** The waiver by any party to this Agreement of a breach of any provision hereof shall be in writing and shall not operate or be construed as a waiver of any other or subsequent breach hereof unless specifically stated in writing.

**24. AUDIT:** SRWA's duly authorized representative shall have access at all reasonable times to all reports, contract records, contract documents, contract files, and personnel necessary to audit and verify CONSULTANT'S charges to SRWA under this Agreement.

CONSULTANT agrees to retain reports, records, documents, and files related to charges under this Agreement for a period of four (4) years following the date of final payment for

CONSULTANT services. SRWA's representative shall have the right to reproduce any of the aforesaid documents.

**25. GOVERNING LAW:** This Agreement shall be governed according to the laws of the State of California.

**26. HEADINGS NOT CONTROLLING:** Headings used in the Agreement are for reference purposes only and shall not be considered in construing this Agreement.

**27. COMPLIANCE WITH LAWS:** CONSULTANT shall ensure compliance with all safety and hourly requirements for employees, in accordance with federal, state, and county safety and health regulations and laws including, but not limited to, prevailing wage laws, if applicable. CONSULTANT shall fully comply with all applicable and non-conflicting federal, state, and local laws, ordinances, regulations and permits.

**28. BUSINESS LICENSE:** CONSULTANT will have a City of Turlock business license.

**29. ASSIGNMENT:** This Agreement is binding upon SRWA and CONSULTANT and their successors. Except as otherwise provided herein, neither SRWA nor CONSULTANT shall assign, sublet, or transfer interest in this Agreement or any part thereof without the prior written consent of the other.

**30. RECORD INSPECTION AND AUDIT:** CONSULTANT shall maintain adequate records to permit inspection and audit of CONSULTANT's time and material charges under this Agreement. CONSULTANT shall make such records available to SRWA during normal business hours upon reasonable notice. Such records shall be turned over to SRWA upon request.

**31. EXCLUSIVE USE:** Services provided within the scope of this Agreement are for the exclusive use of SRWA and CONSULTANT agrees that, until final approval by SRWA, all data, plans, specifications, reports, and other documents will not be released to third parties by CONSULTANT without the prior written consent of SRWA.

**32. EMPLOYMENT OF SRWA OFFICIAL OR EMPLOYEE:** CONSULTANT shall employ no SRWA official or employee in the work performed pursuant to this Agreement. No officer or employee of SRWA shall have any financial interest in this Agreement in violation of California Government Code Sections 1090 *et seq.*; nor shall SRWA violate any provision of its Conflict of Interest Code adopted pursuant to the provisions of California Government Code Sections 87300 *et seq.*

**33. NOTICE:** Any and all notices permitted or required to be given hereunder shall be deemed duly given and effective (1) upon actual delivery, if delivery is by hand; or (2) five (5) days after delivery into the United States mail, if delivery is by postage paid, registered, or certified (return receipt requested) mail. Each such notice shall be sent to the parties at the address respectively indicated below or to any other address as the respective parties may designate from time to time:

for CONSULTANT: WEST YOST ASSOCIATES  
ATTN: GERRY NAKANO, P.E.  
6800 KOLL CENTER PARKWAY, SUITE 150  
PLEASANTON, CA 94566  
PHONE: 925-426-2580

for SRWA: STANISLAUS REGIONAL WATER AUTHORITY  
ATTN: MICHAEL BRINTON, INTERIM GENERAL MANAGER  
2220 MAGNOLIA STREET/ P.O. BOX 642  
CERES, CA 95307  
PHONE: (209) 538-5758

34. PERFORMANCE BY KEY EMPLOYEE: CONSULTANT has represented to SRWA that Gerry S. Nakano PE will be the person primarily responsible for the performance of the services referred to in this Agreement. SRWA has entered into this Agreement in reliance on that representation by CONSULTANT.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by and through their respective officers thereunto duly authorized.

STANISLAUS REGIONAL  
WATER AUTHORITY,  
A Joint Powers Authority

WEST YOST ASSOCIATES,  
a California Corporation

By \_\_\_\_\_  
Gary Soiseth, Board Chair

By \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

APPROVED AS TO FORM:

By \_\_\_\_\_  
Phaedra A. Norton, Interim General Counsel

Date \_\_\_\_\_

ATTEST:

By \_\_\_\_\_  
Tish Foley, Board Secretary

Date \_\_\_\_\_

# Scope of Services

## Task 1. Program Management

### Subtask 1.1. Project Management

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Submit monthly invoices that provide a summary of the project's progress for the most recent month. Conduct weekly conference calls with SRWA's interim general manager and Program Manager. The weekly calls will bring all parties up to date on status of action items and any issues that may arise during the course of the project. West Yost will maintain a Decision Log to track important decisions and an Action Item Log will help keep all parties informed of their responsibilities on the project.

### Subtask 1.2. Meetings and Workshops

---

Attend a kick-off meeting and monthly project coordination meetings with SRWA's Technical Advisory Committee (TAC). The West Yost project manager (for the wet well project) and program manager (for the overall Surface Water Supply Project) will attend monthly meetings with other key project staff, as necessary. Two design review workshops will be conducted with the TAC, the first at the Kickoff meeting, and the second workshop after the 50% submittal. Up to 6 meetings/workshops are anticipated.

### Subtask 1.3. Quality Assurance/Quality Control

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West Yost will provide internal QA/QC of all submittals prior to submitting. Review of submittal items will be performed by a senior engineer with no direct involvement with the project to keep a fresh perspective on the technical peer review.

#### TASK 1 DELIVERABLES

- Workshop agendas, handouts, and summary notes
- Decision log
- Action item log

#### TASK 1 ASSUMPTIONS

- SRWA TAC representatives will attend two workshops and participate in meetings to define the goals and constraints for the project
- TAC representatives will provide comments on each submittal/draft technical memorandum (TM)

## Task 2. Predesign

### Subtask 2.1. Topographical Survey

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The survey data for the previous project is seven years old. Our scope includes providing an updated topographic survey of the area around the Raw Water Wet Well site including a tree survey. Our survey subconsultant, Hawkins & Associates, will provide a basemap in AutoCAD format for our use in developing the site plan.

### Subtask 2.2. Additional Geotechnical Investigation

---

Our geotechnical subconsultant, Crawford and Associates, will make all necessary preparations and coordinate with appropriate parties (including SRWA) to perform two sonic borings to a depth of 100 feet each to determine the geotechnical properties of the soils (and gravels) at the pump station site. Crawford will perform laboratory testing to determine the gradation and Atterberg limits of the soil samples. The information from the borings and laboratory testing will be summarized in a report. The report will provide recommendations for:



- The hydraulic conductivities to be expected during dewatering of the pump station site;
- Ground improvement techniques that will stop the expected influx of groundwater into the excavation; and
- Floation resistance techniques that can be incorporated into the design documents.

### *Subtask 2.3. Evaluation of Modifications to Structural Design*

---

West Yost will perform structural analyses of potential modifications to the configuration of the wet well foundation, walls and pump casings to identify potential construction cost savings. The analyses will consider factors of safety against flotation of the structure, constructability, and the potential for differential settlement of the wet well and pump casings.

### *Subtask 2.4. Evaluation of Alternative Raw Water Pumping Configurations*

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West Yost will develop and evaluate up to two alternatives to the raw water pumping configuration depicted in the 2009 contract documents. The alternatives will be configured to satisfy initial and buildout capacities of the raw water pump station. The evaluation will consider Hydraulic Institute design standards and life cycle costs of the raw water pumping system (e.g., pumps and motors).

### *Subtask 2.5. Evaluation of Provisions for Sediment and/or Invasive Mollusk Management*

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West Yost will analyze the potential for accumulation of sediments and Asian clams from the Tuolumne River in the wet well and develop alternatives for the management and removal of any accumulated material. The analysis will consider a range of operational infiltration gallery pipeline velocities and the settling characteristics of entrained suspended solids.

### *Subtask 2.6. Gallery Development and Testing Coordination*

---

West Yost will consider the temporary requirements of infiltration gallery development and testing activities, as well as raw water quality sampling activities, and recommend provisions to be included in the design of the wet well and the development of the contract documents. Additionally, the evaluation will identify the relative impacts of including development and testing activities as part of the construction contract documents versus making development and testing a separate activity to be completed following closeout of the construction contract.

### *Subtask 2.7. Updated Final Design Criteria TM*

---

West Yost will prepare a TM that provides our recommendation for the revised wet well design. This document will incorporate the results of the above technical evaluations, and will serve as the basis for the final design.

The Updated Final Design Criteria TM is intended to allow TAC members to review and comment on the general design approach prior to proceeding with final design.

#### **TASK 2 DELIVERABLES**

- Geotechnical summary report
- Structural Modifications TM
- Alternative Raw Water Pumping Configurations TM
- Draft and Final versions of the Updated Final Design Criteria TM
- Presentation to the Board

#### **TASK 2 ASSUMPTIONS**

- TAC members will provide comments on the draft TM
- Design contract will be authorized and signed by SRWA on or before September 1, 2016

- Environmental and non-environmental permitting services will be performed under separate contract for the overall Surface Water Project

### *Task 3. Final Design*

West Yost will prepare final design documents for the bidding and construction of improvements as described previously in this proposal. The final design will include structural calculations in accordance with current codes.

#### *Subtask 3.1. 50% Plans, Specifications, and Estimate*

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The 50% set will include general notes and legend sheets, an overall civil site plan showing the improvements relative to existing facilities, and selected structural plans. Draft bid documents, an updated construction cost estimate, and a preliminary list of complete specifications and drawings will also be provided.

The 50% deliverable will be accompanied by a detailed opinion of probable construction cost (OPCC), which will subsequently be updated with later design submittals.

#### *Subtask 3.2. 90% Plans, Specifications, Estimate and Construction Schedule*

---

After receipt of SRWA and TAC member comments regarding the 50% design submittal, West Yost will complete and submit all anticipated final design drawings and specifications that incorporate these comments. An updated estimate of construction costs will also be provided, along with a conceptual construction schedule. West Yost will conduct an in-house quality control review of these documents concurrently with the TAC member's review.

#### *Subtask 3.3. 100% Plans, Specifications, Estimate and Construction Schedule*

---

After receipt of TAC member comments regarding the 90% design review set submittal, and completion of our in-house quality control check, West Yost will finalize, stamp and sign, and submit the final design drawings and specifications that incorporate these comments and are ready for bidding. This deliverable will be accompanied by a final OPCC and updated conceptual construction schedule.

#### **TASK 3 DELIVERABLES**

- Electronic (PDF) copies of:
  - Approximately 50% and 90% complete construction drawings
  - Approximately 50% and 90% complete technical specifications
  - Updated opinion of probable construction cost estimate at each submittal
  - Conceptual construction schedule at 90% complete submittal
  - Final stamped and signed construction drawings and specifications
  - Written responses to TAC member comments
  - Presentation of Project to Board

#### **TASK 3 ASSUMPTIONS**

- Plans will be prepared on West Yost title block using AutoCAD 2013 and West Yost CAD Standards
- Specifications will be prepared using MS Word.
- West Yost will provide Bid Documents, General Provisions, Special Provisions, and Division 0 to 16 technical specifications
- Anticipated design drawings include:
  - Three general sheets
  - Three civil plan and section sheets
  - One civil detail sheets
  - Two mechanical plan and section sheets
  - Two mechanical detail sheets
  - Eleven structural sheets
  - Three electrical sheets

- SRWA will be responsible for reproduction, advertising, and distribution of bid sets

# Budget

	WEST YOST LABOR HOURS	WEST YOST LABOR COST	SUBCONSULTANTS			OTHER DIRECT COSTS	TOTAL
			GEOTECH	ELECTRICAL	SURVEY		
<b>Task 1 – Program Management</b>							
1.01 Project Management	86	\$18,700					\$18,700
1.02 Meetings & Workshops	40	\$9,248				\$400	\$9,648
1.03 QA/QC	24	\$6,096					\$6,096
<b>Task 1 Subtotal</b>	<b>150</b>	<b>\$34,044</b>				<b>\$400</b>	<b>\$34,444</b>
<b>Task 2 – Prodesign</b>							
2.01 Topographical Survey	14	\$2,272			\$7,150		\$9,422
2.02 Additional Geotechnical Investigation	45	\$10,042	\$56,705				\$66,747
2.03 Evaluation of Modifications to Structural Design	67	\$13,622					\$13,622
2.04 Evaluation of Raw Water Pumping Configurations	63	\$11,594					\$11,594
2.05 Evaluation of Sediment/Invasive Mollusk Management	65	\$11,786		\$3,300			\$11,786
2.06 Gallery Development and Testing Coordination	27	\$5,516					\$8,816
2.07 Updated Final Design Criteria TM	68	\$12,948					\$12,948
<b>Task 2 Subtotal</b>	<b>349</b>	<b>\$67,780</b>	<b>\$56,705</b>	<b>\$3,300</b>	<b>\$7,150</b>		<b>\$134,935</b>
<b>Task 3 – Final Design</b>							
3.01 50% Plans, Specs, Estimate	219	\$40,870		\$5,500		\$400	\$46,770
3.02 90% Plans, Specs, Estimate, Construction Schedule	251	\$48,542		\$11,000		\$400	\$59,942
3.03 100% Plans, Specs, Estimate, Construction Schedule	193	\$34,760		\$5,500		\$400	\$40,660
<b>Task 3 Subtotal</b>	<b>663</b>	<b>\$124,172</b>		<b>\$22,000</b>		<b>\$1,200</b>	<b>\$147,372</b>
<b>Task 4 – Bid Phase Assistance</b>							
4.01 Pre-Bid Meeting	14	\$3,212	\$2,200				\$5,412
4.02 Prepare Addenda	44	\$7,708				\$100	\$7,808
4.03 Review Bids	10	\$2,132					\$2,132
<b>Task 4 Subtotal</b>	<b>68</b>	<b>\$13,052</b>	<b>\$2,200</b>			<b>\$100</b>	<b>\$15,352</b>
<b>Task 5 – Engineering Services During Construction</b>							
5.01 Review RFIs	44	\$9,640		\$1,100			\$10,740
5.02 Review Submittals	76	\$16,130		\$1,100			\$17,230
5.03 Change Order Support	44	\$8,824					\$8,824
5.04 Progress and Related Meetings	64	\$12,672				\$400	\$13,072
5.05 Record Drawings	40	\$5,990		\$2,200			\$8,190
<b>Task 5 Subtotal</b>	<b>268</b>	<b>\$53,256</b>		<b>\$4,400</b>		<b>\$400</b>	<b>\$58,056</b>
<b>Total</b>	<b>1,498</b>	<b>\$292,304</b>	<b>\$58,905</b>	<b>\$29,700</b>	<b>\$7,150</b>	<b>\$2,100</b>	<b>\$390,159</b>



**BEFORE THE BOARD OF THE STANISLAUS REGIONAL WATER AUTHORITY**

**IN THE MATTER OF APPROPRIATING } RESOLUTION NO. 2016-  
\$390,160 TO ACCOUNT NUMBER }  
950-53-552.51800\_001 "WET WELL DESIGN AND }  
CONSTRUCTION MANAGEMENT" FOR WET }  
WELL DESIGN SERVICES TO BE FUNDED VIA }  
CONTRIBUTIONS FROM SRWA PARTICIPATING }  
AGENCIES }**

**WHEREAS**, the Stanislaus Regional Water Authority is working on preliminary design of a Surface Water Supply Project for the Cities of Ceres and Turlock; and

**WHEREAS**, it is necessary to gain a better understanding of the water quality of the water being supplied from the Tuolumne River in order to determine the proper treatment process to be used in the design of the Project; and

**WHEREAS**, proposals were reviewed by staff and it was determined that the proposal submitted by West Yost Associates best suits the needs of the Project; and

**WHEREAS**, by separate action the Board has approved an agreement with West Yost Associates for Wet Well Design Services in an amount not to exceed \$390,160; and

**WHEREAS**, the SRWA's 2016-17 budget does not currently contain an appropriation for this activity.

**NOW, THEREFORE, BE IT RESOLVED** that the Board of the Stanislaus Regional Water Authority does hereby appropriate \$390,160 to account number 950-53-552.518001\_001 "Wet Well Design and Construction Management" for Wet Well Design Services to be funded via contributions from SRWA participating agencies.

**PASSED AND ADOPTED** at a regular meeting of the Board of the Stanislaus Regional Water Authority this 25<sup>th</sup> day of August, 2016, by the following vote:

AYES:  
NOES:  
NOT PARTICIPATING:  
ABSENT:

ATTEST:

\_\_\_\_\_  
Tish Foley, Board Secretary

From: West Yost Program Management Team

Prepared by: Polly Boissevain, West Yost Associates

**1. ACTION RECOMMENDED:**

Motion: Accepting the Technical Memorandum dated August 22, 2016 – Preliminary pipeline sizing for the treated water transmission mains to the City of Ceres (30-inch diameter) and the City of Turlock (42-inch diameter), sized to deliver the ultimate 45 mgd of treated water supplies of 15 mgd and 30 mgd to the cities of Ceres and Turlock respectively, and for use in the Project environmental analysis

**2. DISCUSSION OF ISSUE:**

The Project's pipeline hydraulics were evaluated based on the needs of the City of Ceres to receive 15 mgd and the City of Turlock to receive 30 mgd, for a total of 45 mgd of surface water supply at buildout. The SRWA Surface Water Treatment Plant is being sized at 30 mgd capacity for Phase 1 with a 15 mgd Phase 2 expansion, for a total capacity of 45 mgd capacity. Regional infrastructure associated with the project will be installed based on the ultimate Phase 2 sizing. Distribution system infrastructure will be phased in over time, based on pipeline sizing established for buildout conditions in each local system.

Regional and distribution system performance criteria were established during a TAC workshop on May 26, 2016. Using the criteria, hydraulic evaluations were performed for the regional transmission system and the Ceres and Turlock distribution systems to establish pipeline diameters required to integrate the Phase 2 supply into each system. Results of the analysis were presented at a TAC workshop on July 7, 2016.

Recommended pipeline sizes for the regional transmission system are 42-inch diameter pipeline to Turlock and 30-inch diameter pipeline to Ceres. These sizes meet the hydraulic performance criteria, and provide some limited flexibility to serve other potential participants.

Results of the analysis are documented in the *Recommended Transmission Pipeline Sizing for the SRWA Surface Water Supply Project* Technical Memorandum (TM) presented to the TAC on August 15, 2016.

**3. FISCAL IMPACT / BUDGET AMENDMENT:**

Transmission system sizing impacts the overall project capital costs, which will be determined as part of Phase 1 of the project, and the power costs, which will be an on-going project expense. The August 15, 2016 TM presents an annual cost analysis evaluating capital cost re-payment and power costs. The recommended alternatives were found to be the most cost-effective alternatives which meet the needs of both cities.

**4. INTERIM GENERAL MANAGER'S COMMENTS:**

Supports moving forward with the recommended transmission main sizes.

**5. ENVIRONMENTAL DETERMINATION: N/A**

**6. ALTERNATIVES:**

Increasing the recommended transmission pipeline sizes will increase the Project's capital costs, and correspondingly costs to existing and future customers, but will provide more flexibility to be able to provide supplies to serve other potential participants, if supplies and capacity are still available at the time of their request.



**TECHNICAL MEMORANDUM**

DATE: August 22, 2016  
TO: SRWA Technical Advisory Committee  
FROM: Polly Boissevain, RCE #36134  
REVIEWED BY: Gerry Nakano, RCE #29524  
SUBJECT: Recommended Transmission Pipeline Sizing for the SRWA Surface Water Supply Project

Project No.: 693-20-16-01  
SENT VIA: EMAIL

**OVERVIEW**

This Technical Memorandum (TM) presents preliminary pipeline sizing recommendations for the Stanislaus Regional Water Authority (SRWA) Surface Water Supply Project (Project) regional treated water transmission pipelines to Ceres and Turlock. These sizing recommendations were developed using the hydraulic performance criteria developed for this Project, and Phase 2 design delivery flowrates for each Project participant. In addition to hydraulics, West Yost Associates (West Yost) evaluated pipeline detention times, construction costs, and energy costs to compare alternatives. Based on these evaluations, the recommended Ceres transmission pipeline diameter is 30-inch, and the recommended Turlock transmission pipeline diameter is 42-inch. Figure 1 shows the pipeline alignments and their recommended sizes.

Following this overview, this TM presents the following:

- Alternatives
- Pipeline Detention Times
- Conceptual-Level Costs
- Preliminary Transmission Pipeline Sizing Recommendations

Alternative transmission pipeline sizes (30-inch and 36-inch diameter for Ceres and 42-inch and 48-inch diameter for Turlock) were presented and discussed at the July 7, 2016 Technical Advisory Committee (TAC) workshop. Based on the technical evaluations, the TAC selected 30-inch diameter for Ceres and 42-inch diameter for Turlock. These pipeline diameters were selected because they meet the Project hydraulic performance criteria, have lower cost, and also provide some limited flexibility to modestly increase flowrates to serve other potential Project participants.



ALTERNATIVES

Alternative transmission pipeline diameters were developed using the Project hydraulic performance criteria, and planned Phase 2 design flowrates. Although the Phase 2 design flowrates will not be reached for many years, transmission pipelines will be installed based on their planned ultimate requirements, to avoid the need for parallel pipelines in the future.

Performance Criteria

West Yost developed preliminary regional transmission system performance criteria and reviewed them with the TAC at the May 26, 2016 workshop. Table 1 summarizes the criteria being used, based on TAC input.

Table 1. Hydraulic Criteria for Regional Transmission Pipelines		
Parameter	Criterion	Notes
Maximum head loss gradient	2 feet (ft)/1000 ft to 3 ft/1000 ft	Determines pipeline friction losses, and associated pumping head required at Regional Water Treatment Facility. Selected values are typical design values for large-diameter transmission.
Maximum pipeline velocity	5 ft/second	Maximum velocities are typically limited to reduce friction losses and the risk of hydraulic transients. The selected value is typical for large-diameter pipeline design.
Hazen Williams C-value	130	Reasonable but conservative value for large-diameter pipeline. New large diameter pipeline typically can have a C-value of 140 or higher.
Pressures at delivery points	35 psi delivery to terminal tanks	Established to allow sufficient head for tank fill.

Alternatives

Table 2 summarizes alternative pipeline diameters evaluated for Ceres and Turlock, and compares velocities and head losses at the design Phase 2 flowrate. The top portion of the table shows alternative transmission pipeline diameters that would meet the velocity and head loss criteria. The bottom portion of the table calculates the maximum flow rate possible with a velocity of 5 feet per second (ft/s), and the maximum flowrate possible with a maximum head loss gradient of 3 ft/1000 ft. With a maximum velocity of 5 ft/s, the calculated head loss is less than the maximum head loss criterion. With a maximum head loss of 3 ft/1000 ft, the velocity criterion cannot be met.

For Ceres, the 30-inch diameter pipeline provides limited flexibility to increase flows beyond the design flow, while the 36-inch diameter pipeline has considerable flexibility to significantly increase flows beyond the design flow. For Turlock, the 42-inch diameter provides modest

flexibility to increase flows beyond the design flow, while the 48-inch provides considerable flexibility to significantly increase flows beyond the design flow.

The principal impacts associated with the different diameter pipelines are the capital costs associated with the pipelines, and the Regional Surface Water Treatment Facility pump station sizing, which in turn affects energy requirements and associated energy costs. Figure 2 schematically shows the differences in pipeline friction losses, pump station discharge head requirements and pump station sizing for the different diameters evaluated. Both capital costs and energy costs are discussed further in the *Conceptual-Level Costs* section on the next page.

Table 2. Pipeline Sizing Alternatives for Design Flowrate at Buildout (45 mgd)				
Parameter	Alternative Transmission Pipeline Sizes			
	Ceres		Turlock	
	36-inch	30-inch	48-inch	42-inch
Flowrate	15 mgd		30 mgd	
Velocity	3.3 ft/s	4.7 ft/s	3.7 ft/s	4.8 ft/s
Head Loss	0.9 ft/1000 ft	2.2 ft/1000 ft	0.8 ft/1000 ft	1.6 ft/1000 ft
Maximum Flowrate at 5 ft/s	23 mgd	16 mgd	41 mgd	31 mgd
Percent of Design Flow	153%	107%	137%	103%
Associated Head Loss	1.5 ft/1000 ft	2.5 ft/1000 ft	1.5 ft/1000 ft	1.7 ft/1000 ft
Maximum Flowrate at 3 ft/ 1000 ft	29 mgd	17 mgd	61 mgd	42 mgd
Percent of Design Flow	193%	113%	203%	140%
Associated Velocity	6.3 ft/s	5.4 ft/s	7.5 ft/s	6.8 ft/s

#### PIPELINE DETENTION TIMES

One potential concern which needs to be considered in the sizing of the regional transmission system is pipeline detention times, as pipeline size will affect disinfection residuals in these pipelines. Excessively long detention times could reduce disinfection residual. Pipeline detention times were estimated for the different pipeline diameters to determine whether pipeline sizing would significantly affect detention times.

Monthly surface water demand estimates, developed as part of the *Preliminary Phasing and Water Treatment Plant Sizing Technical Memorandum* (West Yost, June 16, 2016), were used to estimate pipeline detention times. Table 3 summarizes results for the different pipeline sizes. As shown in the table, pipeline diameter is not a significant differentiator for pipeline detention times.

Planning Scenario	Range in Detention Times, hours <sup>(a)</sup>			
	Ceres		Turlock	
	36-inch	30-inch	48-inch	42-inch
Full Implementation of Phase 1 (estimated 2025)	4 – 8	3 – 6	5 – 7	3 – 6
Full Implementation of Phase 2 (estimated 2035-2040)	2 – 5	2 – 4	3 – 5	2 – 4

<sup>(a)</sup> Calculated from monthly flow estimates for surface water deliveries. See Preliminary Phasing and Water Treatment Plant Sizing for the SRWA Surface Water Supply Project, June 16, 2016, Figures 1 and 2.

### CONCEPTUAL-LEVEL COSTS

Conceptual-level cost estimates were prepared to compare capital and operating costs for the various pipeline alternatives. These findings are summarized below.

#### Capital Costs

Capital cost estimates were prepared for the pipeline alternatives. Pipeline construction costs were estimated using the estimated alignment lengths shown in Figure 2, and a unit construction cost of \$20 per inch-diameter per foot of pipeline, based on other recent large-diameter pipeline projects. Although pump station costs would vary based on the different horsepower requirements, pump station costs are small compared with pipeline costs and were not calculated. Project capital costs were estimated using construction costs times a 35 percent implementation multiplier, to account for project implementation costs, such as planning, design, project administration, environmental, and legal fees.

Table 4 summarizes estimated pipeline capital costs for the alternatives, and the cost differences. For the Ceres alternatives, there would be a \$4.5 million (M) cost savings by selecting the 30-inch diameter pipeline size. For the Turlock alternatives, there would be a \$6.4M cost savings by selecting the 42-inch diameter pipeline size.

<b>Table 4. Pipeline Capital Cost Comparisons</b>	
	Capital Costs, million dollars <sup>(a)</sup>
<b>Ceres Transmission Pipeline</b>	
30-inch	\$22.5
36-inch	\$27.0
Difference	\$4.5
<b>Turlock Transmission Pipeline</b>	
42-inch	\$44.8
48-inch	\$51.2
Difference	\$6.4
<sup>(a)</sup> Pipeline construction cost of \$20/inch-diameter/foot. Implementation multiplier of 35 percent to account for project implementation costs.	

#### Annual Costs

Annual capital re-payment costs were compared with estimated annual power costs to determine whether the increase in capital costs for the larger diameter pipeline would be offset by the reduction in power costs due to reduced pumping requirements. For the purposes of this preliminary cost comparison, capital re-payment costs were calculated assuming a 4 percent municipal bond interest rate over a 30-year term (potential SRF loans could be at a significantly lower interest rate). Power costs were calculated using the estimated monthly flows presented in the *Preliminary Phasing and Water Treatment Plant Sizing Technical Memorandum* and TID municipal rate schedules, to calculate monthly power costs. Power costs were calculated on a monthly basis in five-year increments from 2020 through 2040, totaled, and then averaged over the 2020 through 2040 period. All cost calculations are in present dollars.

Table 5 summarizes pipeline annual cost comparisons. Our conclusion is that for each pipeline, the estimated annual savings in energy costs is not sufficient to offset the increase in capital costs for the larger diameter pipeline. For Ceres, the estimated net increase in annual costs is \$180,000 per year if the larger, 36-inch pipeline size is selected. For Turlock, the estimated net increase in annual costs is \$310,000 per year if the larger 48-inch pipeline size is selected.

<b>Table 5. Pipeline Annual Cost Comparisons, \$M</b>			
	<b>Annual Repayment Cost<sup>(a)</sup></b>	<b>Annual Power Cost<sup>(b)</sup></b>	<b>Total Annual Cost</b>
<b>Ceres Transmission Pipeline</b>			
30-inch	\$1.30	\$0.17	\$1.47
36-inch	\$1.56	\$0.09	\$1.65
Difference	\$0.26	(\$0.08)	\$0.18
<b>Turlock Transmission Pipeline</b>			
42-inch	\$2.59	\$0.29	\$2.88
48-inch	\$2.96	\$0.23	\$3.19
Difference	\$0.37	(\$0.06)	\$0.31
<sup>(a)</sup> Four percent bond rate for 30-year term assumed. <sup>(b)</sup> Calculated using monthly flows estimated in the <i>Preliminary Phasing and Water Treatment Plant Sizing Technical Memorandum</i> (West Yost, June 2016), and TID Schedule MD – Municipal Uses – Connected Load Over 35 kilowatts			

**PRELIMINARY TRANSMISSION PIPELINE SIZING RECOMMENDATIONS**

Based on the analysis, a 30-inch diameter transmission pipeline is recommended for Ceres and a 42-inch diameter transmission pipeline is recommended for Turlock. Both of these pipeline diameters are the most cost-effective diameters evaluated that meet both head loss and velocity criteria established for the Project. At these diameters, the Project could accommodate some flow increases beyond the planned design flowrates, which would allow participation by other small regional project partners, whose demands are anticipated to be less than 1 mgd.

From: Michael Brinton, Interim General Manager

Prepared by: Tish Foley, Board Secretary

**1. ACTION RECOMMENDED:**

Notification of the composition of the Technical Advisory Committee (TAC) and composition of the Government Relations/Public Affairs Advisory Committee

**Action: None – Information Only**

**2. DISCUSSION OF ISSUE:**

**A. Technical Advisory Committee:**

The Technical Advisory Committee acts as the technical support staff to the SRWA Board, providing technical advice and recommendations on all aspects of the Surface Water Supply Project. The activities of the TAC are concerned with assisting the Board in developing a fully functional Surface Water Supply Project, including but not limited to design, regulatory approval, financing, budgeting, construction and operations. Furthermore, the TAC makes recommendations on contracting for specialized services to assist in furthering the Board's objectives for any aspect of the project. The TAC is composed of the following individuals:

1. Michael Brinton, SRWA Interim General Manager
2. Phaedra Norton, SRWA Interim Legal Counsel
3. Michael Cooke (City of Turlock)
4. Garner Reynolds (City of Turlock)
5. Dan Madden (City of Turlock)
6. Toby Wells (City of Ceres)
7. Jeremy Damas (City of Ceres)
8. Daryl Jordan (City of Ceres)

Although not a member of the TAC, Tou Her serves as the Turlock Irrigation District liaison to the TAC.

**B. Government Relations/Public Affairs Advisory Committee:**

On August 11, 2016, the Board approved an Agreement with the Gualco Group, Inc., to provide Government Relations/Public Affairs Services. An SRWA Government Affairs/Public Relations Advisory Committee was established to work directly with West Yost and the Gualco Group to identify and pursue, if appropriate, alternative delivery legislation, to maximize the

Project's competitiveness for current state funding opportunities, and to identify additional state funding opportunities for the Project. The committee is composed of the following individuals:

1. Gary Soiseth, SRWA Chair
2. Chris Vierra, SRWA Vice Chair
3. Toby Wells (City of Ceres)
4. Phaedra Norton, SRWA Interim Legal Counsel
5. Michael Cooke (City of Turlock)

**3. FISCAL IMPACT / BUDGET AMENDMENT:**

N/A

**4. INTERIM GENERAL MANAGER'S COMMENTS:**

Concurs with the information contained in the report.

**5. ENVIRONMENTAL DETERMINATION:**

N/A

**6. ALTERNATIVES:**

N/A