Please Note:
Members of the public will have the opportunity to directly address the Agency Board of Directors concerning any item listed on the Agenda below before or during consideration of that item. There is a three minute time limit per person.
In order to better accommodate members of the public, some Agenda Items will be heard at a specified time or soon thereafter. Agenda Items without specific times may be rearranged to accommodate the Board’s schedule.

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

2. ADDITIONS TO AGENDA
   Items added to the agenda must be approved by the Board pursuant to Government Code Section 54954.2.

3. PUBLIC COMMENT FOR MATTERS NOT ON THE AGENDA
   A. Discussion items only, no action to be taken. Any person may address the Board at this time upon any subject within the jurisdiction of Amador Water Agency; however, any matter that requires action will be referred to Staff for a report and action at a subsequent Board meeting. Please note there is a three (3) minute time limit per person.

4. CONSENT AGENDA
   A. Items listed on the consent agenda (see attached) are considered routine and may be enacted by one motion. Any item may be removed for discussion and made a part of the regular agenda at the request of a Board member(s).

5. DEPARTMENT REPORTS
   Staff Reports will be provided by Department Heads to update the Board of Directors on current activities within their areas of responsibility.
   A. Administration/Finance
   B. Operations

6. AWA WATER
   A. Ione Hydrogeneration Project
      1. Presentation by Matt Swindle, NLine Energy Inc. regarding the Ione Hydrogeneration Project
      2. Discussion and possible action to direct staff to execute an amended agreement with NLine Energy Inc. for continued work on the Ione Hydro Project
B. Munsys Mapping Software
   1. Presentation by Colin Hobson, Open Spatial Corporation
   2. Discussion and possible action to concur with planned expenditure to upgrade and update the current Munsys mapping software.

C. CAWP Water Rights
   1. Presentation by Dave Richardson of RMC Water and Environment Inc.
   2. Discussion and possible action to authorize the General Manager to execute a contract with RMC Water and Environment Inc. for the CAWP Water Rights Environmental Review

D. Water Sales inside and outside of Amador County
   1. Presentation by Agency Counsel regarding the Agency’s legal authority and policy considerations applicable to sales of water inside and outside of Amador County
   2. Discussion and possible direction concerning further investigation of Agency water sales

7. AGENCY PROJECT UPDATES

8. AGENCY COUNSEL REPORT
   A. Legislative Report
   B. Other Legal Matters
   C. Discussion and possible action regarding Agency positions on pending bills

9. COMMITTEE REPORTS
   A. Engineering Committee (02-03-16)
   B. Ione Outreach Committee (02-05-16)

10. FUTURE AGENDA TOPICS
    A. This item is to provide the Board Members an opportunity to request items to be placed on future agendas.

11. CLOSED SESSION
    A. Conference with legal counsel–anticipated litigation; Government Code sections 54954.5(c) and 54956.9(a) and (d)(2) and (3); significant exposure to litigation involving claims related to Sierra Mountain Construction Inc.’s performance of the AWA Gravity Supply Line Project.
    B. Conference with Real Property Negotiators- Government Code Section 54956.8; Agency Negotiator, Gene Mancebo concerning APN 011-250-002

12. ADJOURNMENT
AMADOR WATER AGENCY
CONSENT AGENDA

February 11, 2016

Items listed on the consent agenda are considered routine and may be enacted by one motion. Any item may be removed for discussion and made a part of the regular agenda at the request of a Board member(s).

1. MINUTES
   A. Approval of minutes of the Regular Board Meeting of January 28, 2016

In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in this meeting, then please contact Cris Thompson at (209) 223-3018 or (209) 257-5281 (fax). Requests must be made as early as possible, and at least two-full business days before the start of the meeting.

Documents and materials relating to an open session agenda item that are provided to the Amador Water Agency Board of Directors less than 72 hours prior to a regular meeting will be available for public inspection and copying at 12800 Ridge Rd, Sutter Creek CA 95685
AMADOR WATER AGENCY
Board of Directors
Regular Meeting
January 28, 2016

MINUTES

Directors Present: Robert Manassero, President
Gary Thomas, Vice President
Richard Farrington
Paul Molinelli
Art Toy

Directors Absent: None

Staff Present: Gene Mancebo, General Manager
Josh Horowitz, Agency Counsel
Cris Thompson, Assistant General Manager
Damon Wyckoff, Operations Manager

CALL TO ORDER: President Manassero called the meeting to order at 9:01 a.m.

ADDITIONS TO THE AGENDA – None

PUBLIC COMMENT: None

CONSENT AGENDA ITEMS

MOTION: It was moved by Director Farrington, seconded by Director Thomas, and unanimously carried to approve the consent agenda Minutes of January 14, 2016 with revisions.

AWA WATER
Water Conservation (02:10- 22:10)
Discussion and possible action regarding Governor Brown’s extension of the Emergency Water Conservation Regulation with proposed changes to achieve statewide reductions in urban potable water usage

MOTION: It was moved by Director Thomas, seconded by Director Molinelli, and unanimously carried to authorize the General Manager to submit the comment letter
with suggested revisions to the State Water Resources Control Board respecting the proposed Emergency Water Conservation Regulations which will be considered at their February 2, 2016 Board Meeting.

Update regarding Water Conservation Efforts

**Reservoir Levels (27:26- 35:10)**
Report on current reservoir levels

**Sanitary Sewer Management Plan Update (35:20- 49:30)**
Informational Only- No requested action

**PROJECT UPDATES (50:10- 1:25:16)**

**RECESS** was called at 10:31 a.m. SESSION resumed at 10:43 a.m.

**Manager’s Reports (1:25:17- 2:36:15)**
General discussion of various items in progress within each area of responsibility. This is for informational and communication purposes. Discussion only, no formal action will be taken. Any matter requiring action will be placed on an upcoming agenda for consideration

1. Gene Mancebo, General Manager
2. Cris Thompson, Assistant General Manager
3. Damon Wyckoff, Operations Manager
4. Karen Gish, HR Office Manager

Report of the Agency’s investment performance through December 31, 2015

**COMMITTEE REPORTS AND DIRECTOR COMMENTS (2:42:29- 2:56:18)**
Fire Protection Committee (01-20-16)
Budget and Finance Committee (01-21-16)
Drought Committee (01-26-16)

**BOARD OF DIRECTOR DISTRICT REPORTS (2:56:20- 3:10:03)**

**FUTURE AGENDA TOPICS**

**ADJOURNMENT**
President Manassero adjourned the meeting 12:30 p.m.

__________________________

Cris Thompson
Clerk of the Board of Directors
Approved: ________________________

Regular Board Meeting
January 28, 2016
Page 2
ADMINISTRATION DEPARTMENT REPORT

Customer Service/Human Resources:

- The 2015/2016 Safety Statistics for Agency staff are:
  - Lost time worker's comp incident: 1 (4/30/15)
  - Other Worker Comp incident: 2 (1/4/16)
  - First Aid incident: 1 (10/2/2015)
  - Avoidable vehicle accident: 0
  - Unavoidable vehicle accident: 0
- Training in January: Cla-Valve-13 staff members, conducted by Distribution Operator Dennis Larson
- Certifications/Renewals in January: Caspary-G1 Collections; Hutchison-G1 and Membership for Collections; Mottishaw-D2; Thompson, M-T3 license
- Staffing: None
- Liens filed in January: Filed: 2-$348.21; Released: 0
- Springbrook: Miscellaneous A/R and Fixed Asset/Inventory modules are currently being worked on. Continue to work on report options and shut off processes.

Conservation efforts this month:

Water waste reports from the website this month: 0
Customers contacted: 1
Conservation devices handed out: 4

Finance/Accounting: This month we are providing the following information.

Water Sales Revenues through the month of January are $3,908,353 or 1% over budget

Wastewater Sales Revenues through the month of January are $723,696 1% below budget

Cash continues to be monitored daily, total cash balances at January 31, 2016 were $3,541,971

Year to date Operating and Non-Operating Revenues exceeded Expenses by $149,934.22
Outstanding grant reimbursements requested- not yet received: $1.3 million

Unrestricted Cash totals: $1,493,900
Restricted Cash totals: $2,048,071

Revenues and Expenses are being monitored daily, along with the cash position.

Prepared by:  Karen Gish – HR / Office Manager
Cris Thompson – Assistant General Manager
Operations Report


Operations Manager:
1. Filed Notice of Intent with the Federal Emergency Management Agency’s (FEMA) Hazard Mitigation Grant Program in order to replace redwood tanks and synthetic plastic floating covers with fire resistant materials in the CAWP distribution system.
2. Attended Pine Grove meeting to discuss their distribution system’s low phosphate results. Phosphate in treated water helps prevent pipe corrosion. Implemented a monitoring plan to assist them with phosphate monitoring.
4. Attended Amador Air District’s Board meeting on January 19th to request board approval of an equipment assistance program for cities and local agencies. This program will assist the Agency in the purchase of a new, trailer mounted generator to become emissions compliant.
5. Secured used, membrane modules for our current backwash water return operations at the Buckhorn Water Treatment Plant.
6. Began providing Camanche wastewater treatment and distribution system information to Stantec, our consultant, developing the design of the new Camanche Wastewater Treatment Plant.

Admin Assist III:
1. Completed monthly and 4th quarter reporting for water and drought.
2. Completed monthly, 4th quarter and annual report for wastewater.
3. Reported wastewater spill on 1/28/16 in Camanche System. Approximately 1500 gallons due to a 3rd party boring into the force main.
4. Accompanied Drinking Water Regulator on an inspection of all up country tanks and the Buckhorn Water Treatment Plant.
5. Attended Agency training on Cla-Val valves for up country distribution system.
6. Attended Amador Air District’s Board meeting to request funds to offset the cost of a new portable generator to be in compliance with emissions regulation.

Water Treatment Plants:
1. Operators completed training on new SCADA controls and equipment for the lone plant’s backwash recycle project.
2. SCADA testing was conducted at the Buckhorn plant to bypass the feed pumps. More work to be done.
3. New Human Machine Interface was installed at PG&E plant making it easier to monitor and run the plant. A new high plant flow alarm was added the system which was required by the Amador County Environmental Health Department (our regulator).
Wastewater:
1. Completed all quarterly sampling in all systems
3. Continue to monitor and run irrigation of Pond #7 at Mace Meadows Golf Course.
4. Continue to monitor and repair Inflow and infiltration in all systems.
5. Wastewater spill in Camanche System. MGE Underground bored into the force main and 1500 gallons of sewage was spilled, collected, disposed of and the area cleaned.

Engineering
1. On-going Developer Projects: 6
2. Customer Inquiries: 8
3. Continued to work on Agency projects: Tanner Hydro, Ione Backwash, Gravity Supply Line, Small Diameter Pipe, Camanche Tank 9, Community Development Block Grant, Preston Castle main line extension, Badger Street Bridge, and grant reimbursements.

Electrical:
2. CAWP line at Pine Grove Tank site- Pressure transducer replaced with unit of greater range.
4. Ione Backwash Project- Factory test of equipment and onsite construction inspection.
5. PGE Plant- Human Machine Interface (HMI) replacement completed.

Construction:
1. Service Line Repair on Quail Ct. Pine Acres (2gpm)
2. Assisted the City of Ione clear drain inlets and culverts for storm water near Ione Plant (Ione).
3. Cleared drainage behind Lift Station 1 and Kmart Lift Station to fix Inflow and Infiltration due to flooding (Martell).
4. Assisted wastewater crew in abandoning old sewer laterals on Depot Road that were causing infiltration issues (Martell).
5. Repaired a leak on a 4" main at Hanford St. and Amador Rd. (Sutter Creek) (10-15 gpm)
6. Transmission line leak repair Tank D (CAWP) (.25 gpm)
7. Repaired break on a 4" main on Greenstone Terrace/ Frakes St. (Sutter Creek) (50 gpm)
8. Assisted Wastewater with the Camanche area spill.

Distribution:
1. Mainline break repairs:
   a. Greenstone Terrace/ Frakes St. (Sutter Creek) (50 gpm)
   b. Toma Lane (CAWP) (7 gpm)
   c. Amelia Drive (Sutter Creek) (5 gpm)
2. Service line leak repairs:
   a. Quail Court (Pine Acres) (2 gpm)
3. Transmission line leak repair Tank D (CAWP) (.25 gpm)
5. Venturi Pump repair at red Corral pressure reducing valve (CAWP).
6. New double check valve installed at Red Corral pressure reducing valve (CAWP).

Canal:
1. Berm Leak repair: Mile marker 10.5 Upper Canal (4 gpm)
2. Downed tree removal:
   a. Mile marker 11.25 Upper canal
   b. Mile marker 3.5 Lower canal

Prepared by: Damon Wyckoff, Operations Manager
STAFF REPORT

Ione Hydroelectric Generation Project
N-Line Energy, Inc. Agreement Amendment

Requested Action:
Direction to General Manager to execute an amendment to the agreement with N-Line Energy, Inc. to proceed with work to complete the Interconnection Application and Federal Energy Regulatory Commission Qualifying Conduit Facility Notice of Intent and associated design and project management work needed for their completion at a cost not to exceed $77,500.

Background:
Matt Swindle will provide a presentation to the Board regarding the anticipated benefits associated with the Ione Hydroelectric Generator project based on possible funding options. The Engineering & Planning Committee heard a presentation by Mr. Swindle on Wednesday, February 3, 2016 and concluded that the project should proceed to the next step which would include completing the interconnection application with PG&E to confirm any project costs associated with the interconnection. The committee also recommended completing the FERC Qualifying Conduit Facility Notice of Intent that will enable the Agency to confirm there are no additional FERC requirements.

Attached to the staff report is the proposed scope of services remaining along with a cover letter from N-Line Energy, Inc. describing the next incremental step. Once the interconnect costs and confirmation for FERC requirements are known a refined cost estimate can be prepared and the Water Agency can then consider financing options and proceeding to the next step in the project.

The Water Agency will receive an incentive check of $66,875 for the Tanner Hydroelectric project. Staff recommends using these funds for proposed work under this agenda item with any shortfall (estimated $10,625) coming from funds budgeted this year for the project or from the property tax funds.

Fiscal Impact: $77,500.
Reviewed by Committee:
Yes, Engineering & Planning Committee reviewed this item on February 3, 2016 and concurs with the recommendation.

Recommendation:
Direct the General Manager to execute an amendment to the agreement with N-Line Energy, Inc. to proceed with work to complete the Interconnection Application and Federal Energy Regulatory Commission Qualifying Conduit Facility Notice of Intent and associated design and project management work needed for their completion at a cost not to exceed $77,500.

Prepared by: Gene Mancebo, General Manager
February 03, 2016

Mr. Gene Mancebo  
General Manager  
Amador Water Agency  
12800 Ridge Road  
Sutter Creek, CA 95685

Subject: **Letter of Transmittal for Amendment #1 and Scope of Services for Ione Hydroelectric Project**

Attachments:  
(A) Amendment #1 Authorization  
(B) Scope of Services  
(C) Board Presentation

Dear Mr. Mancebo:

I am pleased to present this proposal to continue the development of the Ione Hydroelectric Project. Based on a step-wise development approach, the Board would authorize $77,500 to complete Task 1.1 (Geotechnical), Task 1.2 (Load Rejection Analysis), a portion of Task 1.3 (90% design), a portion of Task 2 (Interconnection), Task 3 (FERC QCF NOI) and a portion of Task 10 (Project Management). If favorable interconnection results are received, then we can continue with identifying a financing vehicle, as well as codify General Contractor installation costs.

The Amendment #1 authorization, Scope of Services and a Board presentation is attached to this letter. If you have any questions or require clarification and/or additional information, please do not hesitate to call me directly.

Sincerely,

Matthew Swindle
1. Project Overview

Amador Water Agency ("Agency") seeks to engage the services of NLine Energy, Inc. (NLine Energy) to provide engineering design, environmental, permitting, tariff analysis, turbine-generator system procurement, PG&E interconnection, startup/commissioning services, grant coordination and engineering support during construction for the Ione Water Treatment Plant ("Tanner") in-conduit hydroelectric facility. The project involves installing a single horizontal Pelton turbine-generating unit into a new powerhouse located on the north side of Ione reservoir adjacent to the existing Pressure Reducing Station (PRS).

The basis for this project has been established in a recent report titled, "Preliminary Analysis Report for Agency Tanner and Ione Hydroelectric Sites," which was completed by NLine Energy in January 2013. The Preliminary Analysis report examined flows, pressures, turbine selection, environmental and regulatory issues, revenue generation, capital cost estimates, and power monetization strategies. In June 2015, NLine Energy completed a 50-percent design report and CEQA Initial Study/Mitigated Negative Declaration (IS/MND) that concluded that the project possesses technical, environmental, regulatory and financial merit worthy of further development.

This scope of services outlines the tasks and steps necessary to complete the hydroelectric project design, interconnection to PG&E's electric grid, construction bidding, equipment procurement, and support during construction and commissioning the project. In addition to project development steps, NLine Energy will assist the Agency in identifying and securing a third-party financing debt vehicle for this project.

2. Project Goals

The goals of the project are to design a hydroelectric station that will be simple to operate, easy to maintain, will not complicate existing operations, and will produce net-positive cash flow on an annual basis. This will be accomplished by constructing the hydroelectric station in parallel with the existing PRS located at the Ione reservoir.

The project will generate revenue by harnessing the existing water pressure and flow at the PRS to generate electricity using a hydroelectric turbine and selling the power through PG&E's Renewable Market Adjusting Tariff (ReMAT) or the Local Government Renewable Energy System, Bill Credit Transfer (RESBCT) tariff.
3. Development Team

NLine Energy, in conjunction with EETS, Inc. and Domenichelli and Associates will make up the Development team for this project. A geotechnical consultant will be subcontracted for geotechnical services at a later time. The geotechnical scope of services will be presented to the Agency for review and approval.

4. Scope of Work

NLine Energy has a project development process that utilizes both critical path and concurrent task methodologies.

Task 1: Final Design

Task 1.1: Geotechnical Investigations

Geotechnical investigation, including subsurface explorations and laboratory evaluation, is needed for design of the project. New geotechnical investigations will determine soil and rock characteristics and make recommendations regarding construction methods, as well as foundation soil bearing recommendations.

The investigation will include review of available published and unpublished geologic literature pertaining to the area of the site, as well as review and analysis of aerial imagery for evidence of potential geologic hazards and past land usage. A reconnaissance will be performed in order to evaluate surficial site conditions, identify potential geologic hazards and determine areas that may require particular attention during the subsurface portion of the geotechnical investigation.

Near-surface soil conditions will be explored by utilizing a hollow-stem auger drill rig. Each exploratory boring will be drilled to a depth of approximately 25 feet at each selected location at the project site. Up to two (2) boring locations, with a single mobilization effort is assumed for this task. A Professional Engineer or Geologist will observe drilling operations and maintain a log of the soils encountered at the various sampling depths, as well as obtain bulk samples of subsurface materials at selected intervals. Borings will be backfilled with auger cuttings after drilling and sampling is completed.
Laboratory testing will be performed on selected soil samples obtained from the exploratory borings. Such testing may include particle size, unit densities, moisture content, particle size analysis, moisture-density relationship, shear strength, and soil chemical analyses. These test results will aid in the classification and evaluation of the pertinent engineering properties of the various soils encountered at the site.

- **Assumptions**: Agency staff will allow a Geotechnical sub consultant access to the site to conduct geotechnical investigations with prior notice.
- **Exclusions**: None.
- **Deliverables**: Geotechnical Report describing the characteristics of the subsurface soils with respect to the planned project. The report will address: soil profile/boring logs, laboratory analysis, allowable soil bearing value, seismic design criteria, evaluation of geologic hazards including liquefaction potential and seismic and differential settlement, earth pressure parameters for retaining wall design, soil expansion potential, foundation and compaction recommendations, and elevation of groundwater.
- **Submittal review**: Agency representatives, will be provided with deliverables for review and comment and a submittal review meeting will be scheduled. Agency comments will be incorporated in the final report as well as subsequent design efforts.

**Task 1.2: Load Rejection Computational Analysis**

NLine Energy will conduct a model of load rejection and water hammer effects to determine the safe operating parameters of the hydroelectric station and other affected Agency infrastructure. Parameters of maximum transient pressure, requirements for surge relief equipment and valve closure timing will be evaluated. The results of the analysis will be utilized in the final project design.

- **Assumptions**: None.
- **Exclusions**: Hydraulic modeling of the pipeline system is not included.
- **Deliverables**: Load Rejection Computational Analysis Technical Memorandum.
- **Submittal review**: Agency representatives, will be provided with deliverables for review and comment and a submittal review meeting will be scheduled. Agency comments will be incorporated in the final report as well as subsequent design efforts.
Task 1.3: 90-Percent Design Plans and Specifications

Based on comments and review from staff, the 50-percent design will be developed to a 90-percent design level. Development of 90-percent plans will consider updated input from the following sources: Agency feedback, additional coordination with FERC, input from PG&E during the electrical interconnection application review process, information gathered during the environmental review process.

Technical specifications and owner-furnished equipment documentation will be developed in sufficient detail for construction of the project including civil, mechanical, structural, electrical, and turbine/generator procurement.

Bid documents preparation will include editing of Agency’s front end contract documents with specific project information and writing of special provisions to cover hydraulic and power generation conditions, efficiency requirements, guarantee and warranty requirements, delivery schedule, spare parts, testing, startup and acceptance, commissioning, operational and maintenance requirements and training requirements.

All equipment, system modules, and electrical components shall be listed or recognized by the appropriate United States Safety Laboratory (UL, ETL, etc.), as applicable. The specifications will require that the complete water-to-wire package comply with all applicable and updated Agency, local, county, state and federal standards.

An engineer’s cost estimate and project financial analysis will be updated and prepared for submittal with 90-percent deliverables.

- **Assumptions:** Analysis and design assumptions built into the 50-percent design report and plans are accurate and sufficient to further design to a 90-percent level. Previous topographic surveys are sufficient to complete this task.
- **Exclusions:** None.
- **Deliverables:**
  - 90-percent design plans - Civil, Mechanical and Electrical Drawings for construction
  - 90-percent design technical specifications
  - Draft Front-End documents including special provisions
  - 90-percent design cost estimate and financial analysis
- **Submittal review:** Agency representatives, will be provided with deliverables for review and comment and a submittal review meeting will be scheduled. Agency comments will be incorporated in the final report as well as subsequent design efforts.
Task 1.4: Final Design, Plans and Specifications

Comments received during the 90-percent design review will be incorporated into the final plans, specifications, and bid documents which will become the basis for the construction bid documentation. Final drawings and specifications shall be signed and sealed by a Registered Professional Engineer in the State of California. All drawings shall be prepared using AutoCAD 2013, and provided via electronic file transfer or via portable flash drives containing the AutoCAD source files and a PDF image suitable for printing both full-size and half-size documents. A final version of the technical specifications shall be prepared and submitted to Agency in hard copy, Microsoft Word format, and PDF file format either by electronic file transfer or via portable flash drives. Agency staff will handle the advertising and distribution of the contract documents to prospective bidders.

- **Assumptions:** None.
- **Exclusions:** None.
- **Deliverables:**
  - Final plans - Civil, Mechanical and Electrical Drawings for construction
  - Final technical specifications
  - Final Front - End documents including special provisions
  - One (1) flash drive containing electronic files of final plans and specifications

- **Submittal review:** Agency representatives, will be provided with deliverables for review and comment and a submittal review meeting will be scheduled. Agency comments will be incorporated in the final report as well as subsequent design efforts.

Task 2: PG&E Electrical Interconnection

An interconnection is the contractual and physical means to provide generation to the PG&E grid, which starts with an interconnection application process. This task includes preparation of materials and supporting information in order to process a PG&E interconnection request under Rule 21 interconnection guidelines.

NLine Energy will prepare and submit the interconnection request application package to PG&E for consideration. The application package shall include one-line diagrams showing the relationship between the hydroelectric station existing electrical equipment, site plans and diagrams, meters, switchgear, switchboard, protective relays, generators, circuit breakers, operating voltages, capacities, protective functions and other related equipment will be included as needed.
As part of this task, NLine Energy will respond to PG&E inquiries, site visit requests and integration of PG&E work within the greater project scope and timeline. At the conclusion of the interconnection study period, PG&E will provide a cost estimate and financing terms for the proposed interconnection. Once the interconnection application is accepted, PG&E will transmit a draft Rule 21 Interconnection Agreement and Interconnection Facilities and Financing Operating Agreement that details the terms, conditions and costs associated with interconnection. NLine Energy will coordinate any PG&E facilities work at the site during the construction phase of the project. NLine Energy will assist with certified relay testing during the commissioning the project and provide the necessary documentation to receive the Permission to Operate certification from PG&E.

- **Assumptions:** The interconnection study track will be complete at the Supplemental Review step.
- **Exclusions:** Agency will pay PG&E directly for any interconnection application fees, additional study costs to connect the hydroelectric station to the PG&E grid. As stated in the Assumptions section, we anticipate completion of the interconnection study at the Supplemental Review. If a Detailed Review or Cluster Study is required, then additional time and materials may be necessary to complete this task. Certified relay testing will be required as part of the PG&E interconnection process. Agency will separately contract for these services estimated at $10,000.
- **Deliverables:** Draft PG&E Rule 21 Interconnection Application and supporting documentation.
- **Submittal Review:** A draft Interconnection Application will be provided to staff for review prior to submission. After the interconnection study period, NLine Energy will review the Initial and/or Supplemental Review report, Interconnection Agreement and Interconnection Financing and Facilities Agreement with staff.

**Task 3: FERC Qualifying Conduit Facility, Notice of Intent**

The FERC Qualifying Conduit Facility (QCF) Notice of Intent (NOI) allows the Agency to secure the indefinite development rights to the hydroelectric project. NLine Energy will prepare, file and track a FERC QCF NOI application for the Project. Recent federal legislation (August 2013) allows for a streamlined FERC permitting process. Based on a review of the FERC NOI requirements, the project will qualify for this streamlined process. Once the FERC NOI application is submitted, FERC will have 15 days to review the application and determine if the project meets the eligibility requirements. If
the requirements are met, then FERC will post the NOI application to the Federal register for 45 days for public comment. At the end of the public comment period, FERC will issue a NOI to the applicant. Once Agency receives the NOI, there is no further coordination with FERC and construction may begin. Any additional requirements levied by FERC or other agencies would change the scope of services and require additional time and materials above and beyond this scope of services. Agency review and/or local permitting fees are not expected for this scope of services. If any additional fees are required, they will be paid directly by Agency.

- **Task Deliverable:** FERC QCF NOI Application.
- **Assumptions:** The project meets the four qualifying criteria defining eligibility as a QCF NOI eligible site.
- **Exclusions:** If additional FERC consultations are required, time and materials contract adjustment may be required.
- **Deliverables:** Draft FERC QCF NOI package.
- **Submittal Review:** A draft FERC QCF NOI package will be provided to staff for review prior to submission.

**Task 4: PG&E Power Purchase Agreement (ReMAT)**

ReMAT, or the Renewable Market Adjusting Tariff, is a renewable energy feed-in tariff established by California Public Utilities Commission (CPUC) Decisions (D.) 12-05-035 and (D).13-05-034 to implement Senate Bill 32 that allows a renewable generator to contract with PG&E to receive payment for energy and environmental attributes of the distributed generation project. ReMAT offers 10, 15 or 20-year power purchase agreements (PPAs) with Investor Owned Utilities (IOUs) to purchase wholesale power generated from small renewable energy projects sized up to and including 3 MW. ReMAT is a bi-monthly, auctioned-based contracting vehicle for renewable energy projects. NLine Energy will assist Agency with securing a ReMAT PPA contract, through registering the Agency with the ReMAT auction platform, advising on pricing at the time of the auction, securing a price, advising on the contractual terms and conditions and other associated tasks necessary to secure a ReMAT PPA agreement.

- **Assumptions:** Average price per kWh remains at $0.08923-kWh for a 20-year term in the Non-Peaking, As-Available category. NLine Energy will track and update staff on any increase or decrease in pricing.
- **Exclusions:** The ReMAT PPA terms requires a $20/kW collateral deposit due 30 days following the execution date of the agreement. Based on current generator sizing, we estimate this amount to be $7,500 payable to PG&E by Agency, which is not refundable.
• **Deliverables:** Draft Power Purchase Agreement with summary of pricing, terms and conditions.

• **Submittal Review:** Agency representatives will review the draft PG&E PPA prior to contract execution.

**Task 5: Equipment Pre-purchase Procurement Services**

NLine Energy will develop final technical specifications and equipment documentation in specific detail to acquire either through direct contracting or as part of the general contractor bid process, the turbine, generator, switchgear, PLC, piping and major valves for a complete water-to-wire equipment package. Specification information will include: technical requirements, hydraulic and power generation conditions, efficiency requirements, guarantee and warranty requirements, delivery schedule, spare parts, testing, startup and acceptance, commissioning and training requirements. All equipment, system modules, and electrical components shall be listed or recognized by the appropriate United States Safety Laboratory or National Equipment Testing Laboratory (UL, ETL, etc.), as applicable. The specifications shall require that the complete water-to-wire package comply with all applicable local, county, state and federal regulations. NLine Energy will assist Agency to procure the equipment package and supply to the General Contractor as Owner Furnished Equipment.

- **Assumptions:** NLine Energy assumes that sole-source procurement of the equipment package using either CA Government Code Sections 4217.10 et seq., Agency bylaws and/or as otherwise permitted by law.
- **Exclusions:** If a public bidding is required for equipment, separate from the general construction bid process, then an additional $10,000 per bid fee will be charged.
- **Deliverables:** Equipment specifications.
- **Submittal Review:** NLine Energy will provide equipment provider proposals, agreement, specifications and other details necessary for staff to evaluate, contract and procure necessary equipment.

**Task 6: Construction Bidding Support Services**

NLine Energy will prepare the final bid package with plans and specifications and assist in the bidding, negotiation and award of a construction contract, including specific information related to the turbine-generation system.

NLine Energy will attend one pre-bid conference, respond to questions during the bid period, prepare necessary bid document addendum, and prepare any needed revisions.
to project drawings and/or technical specifications to address contractor questions during the bid period.

NLine Energy will prepare a bid summary after the bid opening.

- **Assumptions:** NLine Energy assumes that one public bidding period will be required for this task.
- **Exclusions:** If additional bidding services are required, then an additional $10,000 per bidding period fee will be charged.
- **Deliverables:** Consultant will provide an evaluation of respondent construction and equipment bids and provides a recommendation for award of a construction contract.
- **Submittal review:** Agency representatives, will be provided with deliverables for review and comment and a submittal review meeting will be scheduled. Agency comments will be incorporated in the final report as well as subsequent design efforts.

**Task 7: Regulatory Support Services**

NLine Energy will provide support and filing services for the following regulatory certifications, processes, and submittals that are required for this project.

**Task 7.1: California Energy Commission (CEC) Renewable Portfolio Standards (RPS) registration**

In order for Renewable Energy Credits (RECs) to be valued in any third-party sale, the distributed generation unit must be registered as an RPS-eligible distributed generation site through the CEC. NLine Energy will work with Agency staff through the CEC pre-registration and registration process will be in accordance with current RPS Guidebook and RPS certification documents. NLine Energy will draft the appropriate forms to assist with the certification of the project with the CEC.

- **Assumptions:** None
- **Exclusions:** If the CEC or other regulatory agencies require additional consultation, then a time and materials amendment may be required. Agency will be responsible for any annual compliance estimated at $300 annually.
- **Deliverables:** CEC-RPS-1 and CEC-RPS-1-S2 forms.
- **Submittal Review:** Agency representatives, will be provided with deliverables for review and comment and a submittal review meeting will be scheduled. Agency comments will be incorporated in the final report as well as subsequent design efforts.
Task 7.2: Western Renewable Energy Generation Information System (WREGIS) Registration

WREGIS is an independent, renewable energy tracking system for the region covered by the Western Electricity Coordinating Council (WECC). WREGIS tracks renewable energy generation from units that register in the system using verifiable data and creates renewable energy certificates (RECs) for this generation. WREGIS registration is required as part of the PG&E ReMAT PPA. NLine Energy will register the project and create a WREGIS account on behalf of Agency.

- **Assumptions:** None
- **Exclusions:** Agency will be responsible for the annual WREGIS fee estimated at $100 annually.
- **Deliverables:** WREGIS account information.
- **Submittal Review:** None.

Task 7.3: FERC Qualifying Facility (QF) Self-Certification

As a requirement of the PG&E ReMAT PPA, Agency is required to obtain a FERC Qualifying Facility (QF) certification. A self-certification of QF status under 18 C.F.R. § 292.207(a) must include a completed Form No. 556, which NLine Energy will prepare and file. There is no fee for filing a self-certification.

- **Assumptions:** None.
- **Exclusions:** None.
- **Deliverables:** FERC Form 556
- **Submittal Review:** None.

Task 8: Engineering Services during Construction

NLine Energy will conduct the following sub-tasks during construction:

- Pre-construction meeting(s) with agenda and meeting minutes;
- Tracking and responding to requests for information (RFI) during the entire construction cycle;
- Submittal review from turbine/generator manufacturer, panel manufacturer, general contractor and subcontractor, as well as PG&E based on Agency specifications; Shop drawing review and record keeping;
- Change order management – review of change order requests with recommendations to Agency; General contractor progress payment review and recommendation; Coordination with and queuing of construction inspectors hired by Agency;
- Periodic field inspection (at key development milestones during the construction cycle);
- Schedule control review and de-confliction of a three-week construction schedule among all stakeholders; Coordination with PG&E facilities group for interconnection upgrades; Coordinate third-party certified relay testing with PG&E;
- Final punch list; As-built drawings and project closeout notes.
Assumptions: Agency will provide construction management and inspection services. NLine Energy’s designated Project Manager will attend key milestone meetings that may include construction kickoff, foundation completion, equipment delivery, equipment installation, factory-acceptance testing, and final piping connections. At a minimum, the NLine Energy Project Manager will physically attend a construction update meeting on a monthly basis. Each trip is assumed to be four hours in duration, once visit per month over an estimated six month construction cycle.

Exclusions: None.

Deliverables: Noted in Task 8 description.

Submittal Review: None.

Task 9: Start-up and Commissioning Services

NLine Energy will develop and implement a startup and commissioning plan patterned after Class B “Extended Test” recommendations of the International Electrotechnical Commission (IEC). NLine Energy testing and commissioning will include activities such as pre-start testing, closing devices, first run operation and controls, bearing temperature, vibration, emergency shutdown, electrical protection, over speed test, runaway test, overpressure, emergency trip and load rejection. The startup and commissioning plan prepared by NLine Energy will test the integrated operation of the bypass turbines with the operation of the existing turbine and verify PLC logic, startup and shutdown logic, generation capacity measurements, and surge control. NLine Energy and/or the turbine/generator manufacturer will conduct four hours of training with appropriate Agency staff on the operations and maintenance manual that will include: operations of the turbine/generator system to include start-up procedures, PLC programming and set-points during normal operations, override procedures, emergency procedures, restart procedures and maintenance procedures.

Assumptions: NLine Energy’s Project Manager spending five, 8-hour days at the site conducting start-up and commissioning services.

Exclusions: None.

Deliverables: Startup and Commissioning Plan; Manufacturers Testing certification and records; Training documentation / meeting minutes; Operation and Maintenance manuals.

Submittal Review: Agency representatives will be provided with all deliverables and provided an opportunity to comment.
Task 10: Project Management Services

Project management includes all the activities to control scope, schedule and budget for the overall project. Project management activities include intermediate project coordination meetings, bi-weekly electronic progress update summaries, coordination of the overall work, coordination of sub consultants, quality assurance and quality control, schedule control, budget control, and administrative activities associated with execution of the work. NLine Energy will develop a detailed project schedule for approval by Agency and manage activities to meet the schedule. NLine Energy will provide updates to the schedule as events warrant. NLine Energy will monitor and manage the work effort and progress within the existing budget.

- **Assumptions:** None
- **Exclusions:** Work considered outside scope will be reviewed with staff to seek a contract amendment and written approval prior to the commencement of additional work.
- **Deliverables:**
  - Field Inspection records (reflecting NLine Energy staff visits)
  - Meeting notes
  - Shop drawings
  - Change order recommendations and records
  - Project Schedule
  - Project Budgeting
  - Progress payment recommendations
  - Punch list coordination records
  - Quality Assurance and Quality Control recommendations
  - Project Closeout report
- **Submittal Review:** None.

Task 11: Grant Services

NLine Energy will assist in the identification and preparation of applicable grants and subsidies during the project’s development.

- **Assumptions:** Agency staff will register for the appropriate Federal databases, as well as file the application prior to the deadline to include Grants.gov, System of Award Management (SAM) and Automated Standard Application for Payments (ASAP), as well as any state or local database requirements. A $10,000 placeholder has been inputted into the total project costs.
- **Exclusions:** Application fees will be paid by the Agency.
- **Deliverables:** As dictated by the granting authority.
- **Submittal Review**: Staff will review the final grant application prior to submission.

5. **Project Travel and Expenses**

NLine Energy have estimated reasonable travel costs and expenses within each task. If travel costs become excessive beyond those estimated, NLine Energy may seek approval for reimbursement on a time and materials, case-by-case basis.

6. **Board updates**

Board update presentations will be provided at the completion of the Contractor Bidding Period and Project Completion, if required, that will outline project milestones and project financial information. NLine Energy will provide a representative that detail both an update presentation.

7. **Project Costs and Initial Schedule**

Table 1 outlines both the initial project schedule and project budget by task.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Duration</th>
<th>Calendar</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td>Final Design</td>
<td>5 months</td>
<td>Feb - Jul 2016</td>
<td>$108,500</td>
</tr>
<tr>
<td>Task 2</td>
<td>Interconnection</td>
<td>4 months</td>
<td>Mar - Jul 2016</td>
<td>$44,400</td>
</tr>
<tr>
<td>Task 3</td>
<td>FERC QCF NOI</td>
<td>2 months</td>
<td>Feb-Mar 2016</td>
<td>$7,500</td>
</tr>
<tr>
<td>Task 4</td>
<td>PG&amp;E ReMAT PPA</td>
<td>2 months</td>
<td>Aug - Sep 2016</td>
<td>$10,000</td>
</tr>
<tr>
<td>Task 5</td>
<td>Equipment Pre-purchase Support Services</td>
<td>2 months</td>
<td>Sep - Oct 2016</td>
<td>$18,500</td>
</tr>
<tr>
<td>Task 6</td>
<td>Construction Bidding Support Services</td>
<td>2 months</td>
<td>Oct - Nov 2016</td>
<td>$21,700</td>
</tr>
<tr>
<td>Task 7</td>
<td>Regulatory Support Services</td>
<td>1 months</td>
<td>Dec 2016</td>
<td>$6,000</td>
</tr>
<tr>
<td>Task 8</td>
<td>Engineering Services during Construction</td>
<td>6 months</td>
<td>Jan - Jun 2017</td>
<td>$33,700</td>
</tr>
<tr>
<td>Task 9</td>
<td>Startup and Commissioning Services</td>
<td>1 months</td>
<td>Jul 2016</td>
<td>$10,200</td>
</tr>
<tr>
<td>Task 10</td>
<td>Project Management Services</td>
<td>12 months</td>
<td>Feb 2016 - Jul 2017</td>
<td>$60,000</td>
</tr>
<tr>
<td>Task 11</td>
<td>Grant Writing</td>
<td>1 months</td>
<td>Jan 2016</td>
<td>$10,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$330,500</strong></td>
</tr>
</tbody>
</table>
Upgrade and Update of the Agency's Mapping Software

Requested Action:
Board concurrence to purchase an upgrade and update to our MUNSYS mapping software and purchase an annual license to Enlighten, a web based GIS application as budgeted.

Background:
In the 2007-2008 Budget, The Water Agency Board of Directors approved the purchase of a new software package in the amount of $60,000 to enhance the capabilities of Agency System Maps.

At that time, Staff conducted an evaluation of several software packages available and determined that the Munsys package was the best software package to meet the needs of the Water Agency well into the future. This GIS program, by definition, integrates graphical map and data base information. The Munsys program is used to create maps, identify facility assets, link data and information to assets, interface with computer hydraulic modeling programs, import as-built map data, update facility asset information with the preventative maintenance program (CMMS), and communicate and import data from the customer data base. This program, coupled with the Webview application, allows any Agency staff computer user to view maps, facilities, and associated information without the need to use complicated drafting software (such as AutoCad). This greatly enhances the efficiency of Agency personnel who would otherwise have to look at hard copy maps and assess data used to perform their daily duties. Just about every Agency employee must rely on information contained in or associated with maps. This includes the Engineering, Operations, Customer Service, Construction, and Executive staff.

The Amador Water Agency's maps have not been updated since 2010, when the Agency eliminated positions due to the downturn in the economy.
Since that time, additional service lines, hydrant relocations, etc. have gone unrecorded, and refinement of the information contained in the Agency’s maps, like pipe type and size verification, has not occurred. Having inaccurate maps reduces system reliability during emergencies, can make it difficult for field crews to do their day to day work, and has been the cause of extended water main shut-down delays in the past. By purchasing the upgrade and updates to our existing mapping software, and adding online GIS functionality provided by the Enlighten software (which replaces the Webview Application), the Agency would once again be able to work to provide accurate maps to field staff. Additionally, Enlighten, the web-based application, can provide emergency responders such as the Amador Fire Protection District and CalFire, (as well as other entities) online and PDF access to Agency maps. The cost to upgrade and update the MUNSYS mapping software is in the approved FY 15-16 budget ($15,920), however there has been discussion among the fire protection committee members as to whether this software program is best suited to meet Agency needs and information sharing with other Agencies.

Staff recommends the purchase of the upgrade and updates of MUNSYS along with the web licensing for the Enlighten GIS application and are confident that this is as the most cost effective option in the effort to make the Agency’s mapping system current.

MUNSYS and Enlighten take maps created in AutoCAD and import them into a GIS based platform. This allows engineers and engineering techs experienced in making maps with AutoCAD the ability to then place those maps into a GIS platform. This eliminates the specialization needed to create GIS based maps and information in an ESRI based platform while in turn allowing the Agency to make use of existing maps and information.

**Alternatives:**

Choose not to purchase the software upgrade and licensing, and direct staff to investigate the cost of moving to an ESRI based GIS/ mapping software which will be more costly to the Agency.

**Fiscal Impact:**

Currently we pay an annual subscription fee of $4,660. Initial set-up fee to upgrade and update would be $15,920. Our annual subscription fee would then increase $6,120 for Fiscal Year 16/17 for a total annual subscription fee of $10,780 thereafter. These costs have been accounted for in the approved 15/16 fiscal year budget.

**Reviewed by Committee:**

Yes. The Fire Committee as seen a presentation by Colin Hobson, a representative for the software company Open Spatial, owners of the MUNSYS and Enlighten software.
**Recommendation:**

Staff recommendation is to proceed with the purchase of the software upgrade and updates as budgeted.

**Prepared by:**

Damon Wyckoff, Operations Manager
February 1, 2016

QUOTE NO: 1601

Amador Water Agency
12800 Ridge Road
Sutter Creek, CA 95685-9630

Attention: Damon Wyckoff

RE: Mapping Software Upgrade to the Open Spatial Suite

Open Spatial is pleased to provide Amador Water with the following quotation to upgrade and update the current Munsys software. Amador has 2 Munsys licenses which are up to date and have an annual software subscription fee of $2,860.

The Munsys software can be used by engineering staff and drafters to update the water asset map database.

Open Spatial also has a web based solution (called enlighten) which works directly on the data edited and maintained by Munsys.

This allows there to be one source of data that can be updated in CAD, but which is live in a web browser for other staff to access the maps and information in an easy to use system.

In addition enlighten provides a base web framework that will enable integration with other systems such as CMMS (Maintenance Connection) and billing software. Our enlighten product is in essence a replacement for the original web mapping product Amador Water had (Webview), but includes a whole new set of functionality and integration platform. Enlighten should be able to connect with Springbrook.

If Amador does not have a GIS and CAD drafter on staff we offer a service that includes a quarter FTE but provides access to the whole range of skills required to get the asset inventory and mapping functional and maintained. I've included this as an option for your budgeting considerations.

We propose the following for Amador Water Agency:

- add enlighten to the existing Munsys software and database
- Setup of web maps and web mapping system
- Include some support hours
- Optionally, include provision for a quarter FTE to do onsite data updating and provide internal support for reports and GIS/Asset Management work

Directors: W Skerrett, JW Nel, C Hobson
### Solution without FTE:

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enlighten basic (10 users) on-site on customer server (annually)</td>
<td>6,120.00</td>
<td>6,120.00</td>
</tr>
<tr>
<td>Web maps and web mapping system install, configure and training</td>
<td>8,000.00</td>
<td>8,000.00</td>
</tr>
<tr>
<td>12 hours of prepaid expert support (support hours are used in half-hour increments, valid for 1 year)</td>
<td>1,800.00</td>
<td>1,800.00</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>$15,920.00</strong></td>
</tr>
</tbody>
</table>

### Solution with FTE:

<table>
<thead>
<tr>
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<tr>
<td>Web maps and web mapping system install, configure and training</td>
<td>8,000.00</td>
<td>8,000.00</td>
</tr>
<tr>
<td>Quarter FTE (4 days per month), includes related Analyst, GIS, DBA, Draftsman and Project Management expertise as needed - *prepaid support would not be needed if Quarter FTE is in place)</td>
<td>28,800.00</td>
<td>28,800.00</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>$42,920.00</strong></td>
</tr>
</tbody>
</table>

Please note the following:

- This quotation does not include any applicable taxes.
- This quotation is valid for 60 days.

We trust this quotation will meet your requirements. Please do not hesitate to contact us should you have any queries.

Sincerely,

Colin Hobson
Open Spatial Corporation
chobson@openspatial.com
STAFF REPORT

CAWP Water Right Application Environmental Consultant Services

Requested Action:
Direction to General Manager to execute an agreement with RMC Water and Environmental for CAWP Water Right Application Environmental Consultant Services with a cost not to exceed $289,429.

Background:
The Water Agency began work on an application for additional water rights for the CAWP system more than a decade ago. Just prior to the recent recession and drought, the CAWP system had utilized 99.8% of its authorized water right. The water right for the Mokelumne River issued to Jackson Valley Irrigation District has a reversionary clause for upstream water needs. The reversion allows for a total of 2,200 AF annual for upstream user without replacement and the current CAWP water permit utilizes 1,150 AF annually leaving 1,050 available for consideration in the current CAWP application. The application is substantially complete with the remaining tasks of environmental review and State Water Board hearing.

As discussed previously, the Water Agency has delayed proceeding with the environmental review on the CAWP water right application in hopes that the proposed County General Plan would be adopted prior to the CAWP Water Right environmental review. State Water Board staff has indicated that we need to proceed or consider withdrawing the application. Given this, the Agency Board authorized sending out a request for proposal for the necessary environmental work and tasked the Engineering and Planning Committee with bringing back a recommended consultant.

The Water Agency received proposals from four consultants: Analytical Environmental Services, ECORP Consulting, Inc., Atkins North America Inc., and RMC Water and Environment. After an initial review, it was decided that an interview with all four consultants was warranted. Consultants were evaluated based on their recent experience, familiarity with the proposed project, and qualifications/experience of their proposed team. The interview focused on four primary areas of expertise and experience: fisheries, hydrology, water rights, and growth inducing/indirect impacts. The interview team included Rich Farrington, Steve Kronick, Nick Bonsignore, and Gene Mancebo. The recommended consultant from the interview team and
Engineering & Planning Committee is RMC Water and Environment. Each consultant had strengths and weaknesses, the team agreed that RMC has the best overall qualifications and team for the project.

The proposal costs included two options: a mitigated negative declaration and environmental impact report (EIR). The team felt that it will be most efficient to assume proceeding with an EIR as the more thorough and defensible environmental review. The proposal cost ranged from $177,343 to $434,138. The RMC proposal was $266,023. Following a recommendation from the interview team and discussion with RMC staff, a recommendation to include a contingency for additional evaluation of indirect impacts increased the cost proposal by $23,406 bringing the total proposal to $289,429. The RMC team committed to streamline where possible in an attempt to control costs. The compensation is recommended as a time and materials with a not to exceed amount and as such if some areas require less time, the cost to the agency will be reduced accordingly.

The Engineering & Planning Committee met on February 3, 2016 and recommends entering into an agreement with RMC Water and Environmental for a cost of $289,429 for environmental consultant services respecting the CAWP Water Right application and that the costs would be paid from participation fees and the property tax funds. Following the Engineering and Planning Committee, staff would like the Board to consider a loan from the County Water Supply Fund as an alternative funding with repayment coming from participation fees and property tax funds.

Fiscal Impact:
$289,429 being paid from participation fees and property tax funds.

Reviewed by Committee:
Yes, the Engineering & Planning Committee reviewed this item and agrees with the recommended action.

Recommendation:
Direction to General Manager to execute an agreement with RMC Water and Environmental for CAWP Water Right Application Environmental Consultant Services with a cost not to exceed $289,429.

Prepared by: Gene Mancebo, General Manager
Proposed Work Plan for CAWP Water Right EIR

AWA would divert an additional 1,050 AFY of water from three diversion locations (Bear River at Lower Bear Reservoir Dam; North Fork of the Mokelumne River at Salt Springs Reservoir Dam; and North Fork of the Mokelumne at Tiger Creek Afterbay Dam). Currently this 1,050 AF of water is part of JVID’s Permit 12167, but available for reversion to AWA. JVID’s existing point of diversion is located in Pardee reservoir, downstream of AWA’s proposed diversion locations. Diverting an additional 1,050 AFY upstream of JVID under the proposed Water Rights Application would reduce water flow along the Mokelumne River between the AWA diversions and Pardee Reservoir, however there would be no net change in water supply downstream of Pardee Dam. The project would consist of increasing the diverted volume of water upstream, and decreasing it by the same amount downstream.

The increased supply would be diverted using existing infrastructure and no new water supply infrastructure would be required. Therefore, this project would have no construction-related impacts and construction impacts would not need to be addressed in the environmental document. Because construction of new facilities and ground disturbance is not required, no potential impacts to cultural resources are expected. It is also assumed that the project would not have direct effects on land use, forestry resources, geology/soils, hazards and hazardous materials, mineral resources, public services/utilities, recreation, or transportation systems.

The CEQA analysis of direct impacts will focus on changes in flow regime in the Mokelumne River downstream of the existing AWA points of diversion, but will also consider indirect impacts of growth that could be accommodated by the additional water supply. It is assumed that the primary components for analysis will include the following:

- Impacts to the Mokelumne River associated with diverting an additional 1,050 AFY upstream of the currently granted permit
- Aesthetic impacts associated with reduced flow between the AWA diversion points and Pardee Dam
- Impacts to aquatic species in the Mokelumne River and tributaries associated with the diversion of water
- Increased water supply and future growth in AWA’s service area

**Task 1.1 Prepare Initial Study**

RMC will prepare an Initial Study pursuant to Section 15063 of the CEQA Guidelines. Based on recent discussions with AWA, it is assumed that an EIR would be the appropriate level of CEQA documentation. Early in the review process, RMC will meet with AWA and the SWRCB to discuss the scope of the environmental document. The initial study will be prepared in a format that can be easily converted into a focused EIR. We also propose the following subtasks.

**Subtask 1.1.1 Project Description**

Under this task, RMC will develop a project description. This description will refine the existing description of the project, including:

- Changes in the Mokelumne River flow regime
- Confirmation of the operational timing for pumping and storage of additional water supply
RMC will prepare a draft Project Description summarizing the project flow and operational criteria. A final Project Description will be prepared following receipt of any comments from AWA.

**Deliverables:**
- Draft and Final Project Description (Microsoft Word and/or PDF files)

**Subtask 1.1.2 Technical Memorandum**

The Mokelumne River watershed upstream of Pardee Reservoir supports populations of resident trout and other fish species as well as being considered for potential experimental reintroduction of fall-run Chinook salmon. Habitat quality and availability for these fish varies in response to variation in instream flows, water quality such as seasonal exposure to elevated water temperatures, and other habitat features. The proposed increased water diversions have the potential to contribute to reductions in instream habitat conditions and their functions related to movement, adult holding, spawning, egg incubation, and juvenile rearing by resident fish.

Based on existing information on instream flow and habitat conditions for various fish, with a primary emphasis on resident trout, an assessment will be prepared on the anticipated changes in fish habitat suitability and quantity associated with the proposed changes in water diversions. The assessment will be based on a compilation and review of existing information on fish species composition, habitat conditions, flow-habitat relationships, current and projected stream hydrologic conditions, water quality conditions, and existing agreements and minimum instream flow requirements. RMC is partnering with a hydrology expert, Avry Dotan, who will provide initial consultation and hydrologic modeling using MokeWISE, if determined necessary. The hydrologic model would determine the Mokelumne River flows if the additional 1,050 AFY is diverted off the river. The model would compare the baseline developed for MokeWISE (current flow conditions) against the project to determine the difference in streamflows. The data from this model would then be incorporated into the aquatic biological resources analysis. A reconnaissance level site visit will be conducted as well as contacts to local fishery experts including, but not limited to PG&E, California Department of Fish and Wildlife, and East Bay Municipal Utility District. Data, analyses, references to technical and scientific information used in the assessment will be documented in a technical memorandum that can then be used as part of the basis for completing the fishery analysis presented in the CEQA document for the proposed project. The analysis will be performed by a certified fisheries biologist, Dr. Charles Hanson, working collaboratively with RMC.

**Deliverables:**
- Reconnaissance level site visit
- Draft and Final Aquatic Biological Resources Technical Memorandum

**Subtask 1.1.3 Administrative Draft Initial Study**

Under this task, RMC will prepare an administrative draft of the Initial Study in compliance with Appendix G of the CEQA Guidelines that describes the environmental setting, identifies the potential environmental impacts of the proposed project, and identifies where mitigation is necessary to reduce potential impacts. The Initial Study will be organized by CEQA resource category and impacts will be identified for the proposed diversion. This scope of work assumes that the Initial Study will support preparation of a focused EIR as the appropriate CEQA compliance document for the proposed project.
Deliverable:
- Administrative Draft Initial Study (Microsoft Word and/or PDF files)

Task 1.2 Project Management
RMC will establish an appropriate Project Work Plan at the kickoff meeting to ensure coordination throughout the project. This Project Work Plan will include the project team, including subconsultants, and their responsibilities. The Project Work Plan will include a project schedule, describe tasks to be included in the scope of work for the proposed project, and identify deliverables. It is anticipated that this Project Work Plan will be based on the scope, work plan, and staffing included in this proposal.

RMC will build support and project consensus with regular communication with the AWA team. Project management meetings will be conducted on a monthly schedule, or as-needed basis based on schedules for project deliverables. The meetings will be conducted by conference call or in person based upon agreement between AWA and RMC.

To ensure quality work products, RMC will prepare a schedule of the expected project deliverables and assign quality control review responsibilities. RMC will conduct internal Quality Assurance/Quality Control (QA/QC) using their best professional judgment.

RMC will use its Deltek Vision Information Management System as its primary cost management and control tool. RMC will submit a monthly status report, including budget and schedule, to coincide with monthly invoices for AWA’s review.

Deliverables:
- Project Work Plan (Microsoft Word and/or PDF files)
- Meeting agenda, materials, and notes for meetings (Microsoft Word and/or PDF files by email)
- Monthly progress reports (i.e., project status, schedule, budget, summary of accomplishments, upcoming work activities, project issues) and invoices (hard copy with invoice)
- Agency board presentations (Microsoft PowerPoint and/or PDF files)

Task 1.3 Data Acquisition and Review
Our team will review existing AWA/state/local agency documents, along with acquiring and reviewing other pertinent documents. RMC will also conduct a site visit and reconnaissance of the project area for strategic planning. Following our review, we will submit a follow-on data request, if necessary. This effort will help inform the Project Work Plan tasks and deliverables.

Deliverables:
- Review existing AWA/state/local agency documents
- Acquire and review other pertinent documents
- Conduct site visit and reconnaissance of project area

Task 1.4 Revise Initial Study
Based on the AWA’s review of the Administrative Draft Initial Study, RMC will prepare a revised Initial Study, which will be included in the Administrative Draft Environmental Impact Report (EIR). Additional deliverables are noted under applicable subtasks.
Task 1.5 EIR Preparation
Based on the Initial Study, RMC will prepare a Draft Focused EIR. Environmental topic areas that were determined to have no impact, less than significant impact, or less than significant impact with mitigation in the Initial Study will not be further addressed in the Focused EIR.

Task 1.5.1 Notice of Preparation
RMC will prepare a Notice of Preparation (NOP) for the EIR. RMC will prepare a description of project that will be evaluated in the EIR. RMC will submit a draft Project Description and draft NOP to AWA for review and written comments. One conference call will be held to discuss incorporation of comments. RMC will incorporate AWA’s comments and submit a final Project Description to AWA for inclusion in the final NOP.

RMC will identify agencies to whom the NOP should be mailed (including the State Water Resources Control Board (SWRCB), Division of Water Rights, which will be a responsible agency) and will work with AWA to develop a distribution list for the NOP. RMC will prepare and submit the completed NOP to the State Clearinghouse, as well as coordinate the publication of the public notice. For purposes of scope and budget, RMC assumes that 100 copies of the NOP will be distributed.

Deliverables:
- Draft and final NOP (hard copies and Microsoft Word and/or PDF files)
- Draft and Final NOC for State Clearinghouse (hard copies and Microsoft Word and/or PDF files)
- NOP for public distribution (hard copies and Microsoft Word and/or PDF files)
- Public notice for 1 newspaper (Microsoft Word and/or PDF file)
- Distribution list for NOP (Microsoft Word or Excel)

Task 1.5.2 NOP 30-Day Public Review Period, Scoping Meeting and Summary
RMC will support AWA in conducting one public scoping meeting, assumed to occur during the latter half of the NOP review period. It is assumed that the meeting will be held in the project area at a location to be provided by AWA, and RMC recommends that the meeting be held in an open house format. RMC will record and compile comments received during the NOP review period, including comments received at the public scoping meeting. RMC will prepare responses to comments referencing the EIR section that addresses the comment, and one conference call will be held with AWA to discuss responses to comments. At the end of the NOP review period, RMC will review comments received and determine if additional review and analysis is required to address agency or public comments. RMC will contact the SWRCB at the end of NOP period to discuss any comments submitted during scoping or to discuss our EIR approach if SWRCB does not submit comments. If additional review and analysis is found to be required, RMC will meet with AWA to summarize evaluation of comments and discuss the adequacy of the project scope to address public and agency concerns.

Deliverables:
- Meeting materials (including presentation) and notes for one (1) scoping meeting (hard copies and Microsoft Word and/or PDF files)
- A scoping report with comment tracking and proposed response matrix (Microsoft Word and/or PDF files)
- Summary of additional review and analysis that would be required, as necessary (Microsoft Word and/or PDF files)
Task 1.5.3 Administrative Draft EIR and Mitigation Monitoring Plan (MMP)

RMC will meet with AWA to finalize the EIR approach for the evaluation of the proposed project. RMC will work with AWA to develop a reasonable range of alternatives to the proposed project that will be analyzed in the EIR. RMC will evaluate the No Project Alternative, Preferred Project, and up to two additional alternatives. RMC will use the project description prepared for the NOP as the basis of analysis of impacts, and has assumed that it will not change after AWA approval.

RMC will prepare an administrative draft EIR (ADEIR) for the proposed project. For each issue area identified, RMC will describe the existing environmental and regulatory setting, state impact significance criteria, describe the impacts of the proposed project and alternatives, assess their significance, and develop feasible mitigation measures, as applicable, to reduce or eliminate identified impacts. RMC will also identify cumulative and unavoidable impacts, and will prepare all other required sections of the EIR including:

- Executive Summary
- Introduction
- Other Environmental Considerations/Resource Areas with No Impact
- Persons Consulted
- List of Preparers
- References

Impact topics that could potentially be addressed in the EIR include:

- Biological Resources
- Hydrology
- Growth Inducing Impacts – It is RMC’s understanding that Amador County is currently in the process of updating its General Plan, which has not been adopted yet. The additional 1,050 AFY of diversion proposed under the project is anticipated to serve the growth identified in the General Plan. Growth is addressed in the General Plan Draft EIR and securing the additional 1,050 AFY is acknowledged and accounted for in the Public Services and Utilities analysis for the projected water supply and demand. The Draft EIR concluded that AWA’s planned water supply, inclusive of the additional 1,050 AFY, would be adequate to meet 2030 water demands within its service area, including water demands for new development identified in the Draft General Plan. Therefore, the proposed project is expected to meet the projected demand of the service area. Growth inducing impacts would be discussed in the EIR, pursuant to Section 15126 and 15126.2 of the CEQA Guidelines. Because the Draft General Plan has not yet been adopted, RMC will discuss both the existing and Draft General Plans, and the evaluation of growth inducing impacts will include a discussion of indirect impacts that would be associated with additional development in the CAWP service area.

RMC will prepare a draft Mitigation Monitoring Plan (MMP), in accordance with CEQA, that will include applicable mitigation measures identified in the ADEIR. This draft MMP will be incorporated into the ADEIR, and submitted to AWA for internal review and comment along with the ADEIR.

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1 Amador County. 2014. Amador County General Plan DEIR.
Deliverables:
- Administrative Draft EIR and MMP (Microsoft Word and/or PDF files)

Task 1.5.4 Screencheck Draft EIR
AWA will provide comments on a single annotated comment copy of the ADEIR that provides clear direction for revisions. Upon receipt of comments from AWA, RMC will hold a meeting at a location arranged by AWA or via teleconference to review comments and discuss the approach for revising the document. RMC will ensure that AWA comments are addressed thoroughly. RMC will prepare the Screencheck Draft EIR, including MMRP, for publication. RMC will submit a Screencheck Draft EIR to AWA for final review to ensure that the document is ready for publication.

Deliverables:
- Screencheck Draft EIR and MMP (PDF file)

Task 1.5.5 Public Draft EIR and Notices
RMC will prepare a Public Draft EIR (PDEIR), incorporating necessary revisions and refinements to the ADEIR based upon one set of consolidated comments from AWA. The PDEIR will include the MMRP and all technical appendices and a scoping report (responses to public comments received during the NOP public review period). RMC will submit the PDEIR in hard copy and electronic format (PDFs, and 15 CDs plus hard copy of executive summary for submittal to State Clearinghouse) ready for posting on AWA’s website.

RMC will also prepare and submit a draft Notice of Completion (NOC) to AWA for review. Following receipt of comments, the NOC will be finalized and submitted the State Clearinghouse along with the Public Draft EIR, and to AWA for posting on its website. RMC will work with AWA to refine the NOP distribution list to produce a distribution list for the EIR. A Notice of Availability (NOA) of the PDEIR will be mailed to the distribution list, providing information on where to access the PDEIR on the AWA’s website and where hard copies can be reviewed.

RMC will also update the table of comments received during the NOP scoping period (prepared under Task 1.5.2) to reflect where each comment was addressed in the PDEIR. For purposes of scope and budget, RMC assumes that 100 copies of the NOA will be distributed.

Deliverables:
- Final Public Draft EIR with technical appendices and MMP: Ten (10) sets bound (Draft) with appendices and MMP included as a CD in an envelope (hard copies and Microsoft Word and/or PDF files). Electronic file for AWA’s website will be in an HTML, or other acceptable web-friendly format (document shall not exceed 10 MB per file)
- Draft and Final NOA for public distribution (hard copies and Microsoft Word and/or PDF files)
- Draft and Final NOC (PDF and 1 copy)
- Public notice for 1 newspaper (Microsoft Word and/or PDF file)
- Distribution list for Public Draft EIR (Microsoft Word or Excel)

Task 1.5.6 Draft EIR 45-Day Public Review and Meeting
RMC will assist AWA in holding one evening public meeting after release of the Public DEIR. RMC recommends holding the meeting in an open house format. RMC will coordinate with AWA to prepare exhibits for the meeting, and will compile comments received at the meeting into a matrix to be
addressed in Task 1.5.7, below, and included in Final EIR (Task 1.5.8). It is assumed that the meeting will be held in the project area at a location to be provided by AWA.

**Deliverables:**
- Public meeting graphics (Microsoft PowerPoint and/or PDF files)
- Meeting notes from the public meeting (Microsoft Word and/or PDF files)
- Public meeting comment matrix (Microsoft Word and/or PDF file)

**Task 1.5.7: Draft Responses to Comments**
RMC will meet with AWA at the close of the comment period to identify and develop approaches and/or responses for key issues raised. RMC will develop a comment database to facilitate tracking and ensure an efficient response effort. RMC will use master responses for topics of greatest interest to local agencies and the surrounding community. The scope of work assumes 150 hours of staff time to provide written response to public comments; should the estimated level of effort for preparing responses exceed the hours assumed, additional work would need to be authorized through a contract modification.

**Deliverables:**
- Draft EIR comment matrix (Microsoft Word and/or PDF files)
- Draft and final response to public comments (Microsoft Word and/or PDF files)

**Task 1.5.8: Final EIR and Associated Documents**
RMC will prepare an Administrative Final EIR that includes 1) letters received on the DEIR and summaries of substantive comments made on the DEIR at the public meeting, 2) responses to each comment, and 3) text revisions to the DEIR shown in redline-strikeout or errata format. RMC will also include revisions to the MMP in the Final EIR, which will consolidate required and recommended mitigation measures into an appendix to the Final EIR. RMC will include tangible (i.e., quantifiable) performance objectives for identified mitigation, identification of appropriately timed monitoring, identification of agency or staff responsible for monitoring, and mitigation or measures to be implemented should the performance objectives not be met. RMC will submit the Final EIR (including the final MMP), Findings Resolution, and Statement of Overriding Considerations (as applicable) to AWA for publication in hard copy and electronic format ready for posting on AWA’s website.

**Deliverables:**
- Administrative Final EIR, incorporating comments on DEIR, responses to comments, text revisions in DEIR in errata, and revised MMP (Microsoft Word and/or PDF files)
- Final EIR incorporating comments on DEIR, responses to comments, text revisions to DEIR in errata: Ten (10) sets bound (Final) with appendices and MMP included as a CD in an envelope
- Final MMP and Appendices: Ten (10) separately bound (Final) copies of appendices and MMP
- Draft and Final Findings (Microsoft Word and/or PDF files)
- Draft and Final Statement of Overriding Considerations (if necessary) (Microsoft Word and/or PDF files)

**Task 1.5.9 – Presentation to AWA Board of Directors**
RMC will provide support to AWA staff in developing a presentation on the EIR findings to the AWA Board of Directors. This support will include preparation of presentation slides on the CEQA process and
key findings of the Final EIR. RMC will attend the certification hearing and will be prepared to answer questions from AWA’s Board of Directors.

**Deliverables:**
- Presentation slides and other materials on CEQA process and EIR findings for AWA Board of Directors meeting (Microsoft PowerPoint and/or PDF files)

**Task 1.5.10 – Notice of Determination**
RMC will prepare a draft Notice of Determination (NOD) following certification of the EIR and approval of the project, in accordance with CEQA Guidelines §15075. AWA will finalize and transmit the NOD to the County Clerk and State Clearinghouse.

**Deliverables:**
- Draft and final NOD (Microsoft Word and/or PDF file)

**Task 1.6 Public Review**
RMC will assist AWA with publication and circulation of the notices for the EIR. Our team will coordinate with AWA to schedule public meetings and hearings as required, and make presentations as appropriate regarding findings of impact studies, proposed mitigation measures, and other project-related information. RMC will also consolidate public comments, and prepare written responses as needed, and shall prepare any documents, such as findings, required for recirculation and/or adoption as appropriate.

Please Refer to Tasks 1.5, where the public noticing and review for the EIR process is described.

**Contingency Task for Additional Evaluation of Indirect Impacts**
Based on review of comments submitted by Foothill Conservancy on the Draft Amador County General Plan EIR RMC proposes a contingency budget to allow additional level of effort to address indirect impacts of growth that could be accommodated by the additional water right. RMC may be able to reallocate level of effort from the evaluation of fisheries, to the evaluation of indirect impacts, in which case the contingency budget may not be needed. Expenditure of contingency funds would require authorization from AWA.

**Assumptions:**
Assumptions regarding scope and level of effort are summarized below:

- If additional water availability analysis is required by SWRCB, AWA will be responsible for preparation of that analysis.
- RMC will prepare notices but AWA will be responsible for publishing notices in a local newspaper including Notice of Preparation and Notice of Availability.
- Ten (10) hard copies of the public draft EIR/EIS will be prepared with appendices included as a CD.
- Public meeting materials, consisting of a powerpoint presentation, will be prepared by RMC.
- Scope does not include retaining a court reporter to prepare a verbatim transcripts of public meetings.
• The scope of work assumes 150 hours of staff time to provide written response to public comments; should the estimated level of effort for preparing responses exceed the hours assumed, additional work would need to be authorized through a contract modification.

• Final EIR will be published as Responses to Comments with revisions to the Draft EIR shown in errata fashion; complete revised text of the Draft EIR will not be republished. The Responses to Comments and the Draft EIR together are considered the Final EIR.

Schedule
RMC proposes the schedule on the following page for the tasks outlined above, including milestones for meeting with AWA to review progress, results and findings. The schedule for the EIR is anticipated to take 12 months.
# Schedule for EIR Approach

## Amador Water Agency

Central Amador Water Project (CAWP) Water Right Application Environmental Consulting Services

### Tasks

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<thead>
<tr>
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<td>Site Visit and Reconnaissance</td>
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### Milestones/Deliverables

- Milestone/Deliverable
- Public Meeting
- Public Review Period
- RMC Task
- AWA Review Period

### Timeline

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# Fee Estimate for EIR Approach

## Amador Water Agency
### Central Amador Water Project (CAWP) Water Right Application Environmental Consulting Services

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### Task 1.2: Draft EIR

- General Consultation, Meetings, Conference Call
- Schedule and Budget Management

| Subtask 1.2.1 | Sub | % | Sub | % | Sub | % | Sub | $/hr | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % |
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### Task 1.3: Review Draft EIR

| Subtask 1.3.1 | Sub | % | Sub | % | Sub | % | Sub | $/hr | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % |
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### Task 1.4: Final EIR

- Administrative Draft Initial Study
- Administrative Review

| Subtask 1.4.1 | Sub | % | Sub | % | Sub | % | Sub | $/hr | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % |
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### Task 1.5: Public Review

- Draft EIR Public Meeting
- Preparation of Administrative Draft EIR
- Review of Work Plan

| Subtask 1.5.1 | Sub | % | Sub | % | Sub | % | Sub | $/hr | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % |
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### Task 1.6: Public Review

- Administrative Draft Initial Study
- Administrative Review
- Review of Work Plan

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### Task 1.7: Supplementary Studies

- Administrative Draft Initial Study
- Administrative Review
- Review of Work Plan

| Subtask 1.7.1 | Sub | % | Sub | % | Sub | % | Sub | $/hr | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % | Sub | % |
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