Agenda

Sacramento Suburban Water District

Facilities and Operations Committee

3701 Marconi Avenue, Suite 100
Sacramento, CA 95821

Wednesday, June 4, 2014
5:30 p.m.

Public documents relating to any open session item listed on this agenda that are distributed to the Committee members less than 72 hours before the meeting are available for public inspection in the customer service area of the District's Administrative Office at the address listed above.

The public may address the Committee concerning any item of interest. Persons who wish to comment on either agenda or non-agenda items should fill out a Comment Card and give it to the General Manager. The Committee Chair will call for comments at the appropriate time. Comments will be subject to reasonable time limits (3 minutes).

In compliance with the Americans with Disabilities Act, if you have a disability, and you need a disability-related modification or accommodation to participate in this meeting, then please contact Sacramento Suburban Water District Human Resources at 679-3972. Requests must be made as early as possible and at least one-full business day before the start of the meeting.

Call to Order

Roll Call

Public Comment
This is an opportunity for the public to comment on non-agenda items within the subject matter jurisdiction of the Committee. Comments are limited to 3 minutes.

Items for Discussion and Action

1. **Skip's Music Lease Agreement**
   Review draft Lease Agreement and direct staff as appropriate.

2. **Service Size Billing Issues – Large Lots**
   Review report on status of service line verification project.

3. **Antelope Pump Back Project - Memorandum of Understanding**
   Review final draft of Memorandum of Understanding following comments from San Juan Water District's Board of Directors.

4. **Information Technology Master Plan**
   Review report and direct staff as appropriate.

5. **Arden Oaks Main Replacement Project – Paving**
   Review report on potential paving partnership with County of Sacramento.

Adjournment

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Upcoming Meetings:

Monday, June 16, 2014, at 6:30 p.m., Regular Board Meeting

Monday, June 23, 2014, 1:00 p.m., 2X2 Water Management Ad Hoc Committee Meeting

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I certify that the foregoing agenda for the June 4, 2014, meeting of the Sacramento Suburban Water District Facilities and Operations Committee was posted by May 30, 2014 in a publicly-accessible location at the Sacramento Suburban Water District office, 3701 Marconi Avenue, Suite 100, Sacramento, California, and was made available to the public during normal business hours.

Robert S. Roscoe
General Manager/Secretary
Sacramento Suburban Water District

Return to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Facilities & Operations Committee
Agenda Item: 1

Date: May 29, 2014

Subject: Skip's Music Lease Agreement

Staff Contact: Dan York, Assistant General Manager

Recommended Committee Action:
Receive report regarding the draft Lease Agreement between Skip's Music and Sacramento Suburban Water District for buildings and property at 2736 Auburn Boulevard. Direct staff to bring the Lease Agreement to the full Board with a recommendation to set the monthly lease amount at $5,300.00 with a 3% increase bi-annually, attached as Exhibit 1.

Discussion:
Skip's Music began leasing the former Arcade Water District's Administration Building at the front parcel at 2736 Auburn Blvd. The term of that Lease Agreement began on January 1, 1994, and was automatically renewed on January 1, 1999. In June 2002, Skip's Music began leasing the former Arcade Water District's Corporation Yard building, located at the rear of the parcel at 2736 Auburn Blvd. The term of that Lease Agreement was for the period of June 1, 2002 to December 31, 2004. However, in July 2004, the District combined the two Lease Agreements into one, which expires on July 31, 2014.

Skip Maggiora, owner of Skip's Music, Rob Roscoe, General Manager, and Dan York, Assistant General Manager, met on April 3, 2014 to discuss renewal of the Lease Agreement. During the meeting, discussion arose regarding re-addressing the monthly lease amount. Mr. Maggiora feels the local and national economy warrants a deduction in the monthly lease amount. In addition, Mr. Maggiora commented that utilizing the Consumer Price Index (CPI) is not economically fair as it is calculated with the San Francisco, Oakland, and San Jose area. An option that he put forth was a percentage based on a lease amount increase. For example, base lease amount plus 2% per bi-annum increase. He believes the current monthly lease amount, $5,617.60, should not be a starting point for negotiations. Mr. Maggiora stated $5,100 per month is sufficient. During discussions, Mr. Maggiora addressed the security at the subject facility continues to be an ongoing issue for Skip's Music, Inc. and potentially the District's well facilities (two separate wells are located on the property).

In 2004, during negotiations to set a monthly lease amount, staff and Mr. Maggiora mutually agreed to set the monthly lease amount at $5,100 due to the following reasons:

- The District's well facilities at this location are both equipped with emergency backup engines, and are therefore essential for operation during power outages.
- Mr. Maggiora agreed to install and upgrade additional security cameras and provide the routine monitoring including additional camera targeted at District facilities.
- The proposed lease amount of $5,100 per month would increase to $5,300 per month in two years of executed Lease Agreement. Staff believes the reduction in the monthly lease amount during that time frame would offset the cost for Mr. Maggiora to install and upgrade the security cameras/monitoring. This was completed prior to 2006.

To address Mr. Maggiora's concerns regarding the monthly lease amount, staff contacted two commercial leasing agents to conduct a Market Snapshot of the current commercial lease market in the area of the subject facility. As of the date of this report, staff did not receive a Market Snapshot report from either commercial leasing agent. However, based on the partnership the District has with Skip's Music related to demonstrating a long term tenant and security benefits, staff is comfortable recommending to the Board a reduced monthly lease amount as it is to the benefit of the District rate payers. Mr. Maggiora has also developed a "goodwill" that may be lost if he chooses to not lease the District's buildings.

In regards to the bi-annum increase calculation, if the CPI is not utilized, a typical monthly increase is in the 3%-5% range. Due to the reasons stated above for setting the monthly lease amount, staff feels a 3% bi-annum increase is recommended.

This lease agreement grants to Skip's Music, Inc. a "right of first refusal" to purchase the property by matching any offer the District receives should the District ever elect to sell the property.

The term of the Lease Agreement will be from August 1, 2014 to July 31, 2016 with an option for Skip's Music, Inc. to extend the term of the lease an additional eight years.

Fiscal Impact:

None. The District will potentially receive a monthly lease income from Skip's Music until July 31, 2024.

Strategic Plan Alignment:

Facilities and Operations – 2.B. Monitor and improve the District's efficiencies in operating and maintaining system infrastructure.

Facilities and Operations – 2.C. Develop cost-effective strategies utilizing appropriate technology and other available resources to achieve optimization in delivery of water and enhance service.

Exhibit 1

LEASE AGREEMENT BETWEEN SACRAMENTO SUBURBAN WATER DISTRICT AND SKIP'S MUSIC, INC. FOR BUILDINGS AND PROPERTY AT 2736 AUBURN BLVD., SACRAMENTO, CALIFORNIA

This Lease Agreement ("Lease") is entered into and made effective as of August 1, 20~~0~~14 by and between the Sacramento Suburban Water District, a public agency ("Lessor"), and Skip's Music, Inc., a California corporation ("Lessee"), who agree as follows:

1. Grant of Lease. Subject to the terms and conditions set forth below, Lessor hereby leases to Lessee, and Lessee hereby leases from Lessor, the three buildings and all associated parking in front of the fenced in yard on the back south end of the Lessor's property at 2736 Auburn Boulevard, Sacramento, California, as more particularly described in Exhibit A, attached hereto and incorporated herein (the "Property"). In addition to the Property, Lessor grants to Lessee access to the large rolling doors located on the west and south sides of the Property within the gated, fenced yard adjacent to the Property, and non-exclusive use of the yard area adjacent to the Property for purposes of shipping, receiving goods and occasional overflow staff parking.

2. Consideration. Lessee will pay $5,100.00 per month rent to Lessor, payable on the first day of each month at Lessor's principal place of business, 3701 Marconi Avenue, Suite 100, Sacramento, California 95821. If Lessee fails to pay the monthly rent by the tenth day of each month, Lessor may assess Lessee a late charge of $200.00 in addition to the monthly rent.

3. Lease Term.

3.1 The term of this Lease will be for the period of August 1, 20~~0~~14 to July 31, 20~~0~~16, unless sooner terminated as provided below.

3.2 If this Lease remains in effect on July 31, 20~~0~~16, Lessee is hereby granted the option to extend the term of the lease up to an additional eight years at an initial monthly rent of $5,300.00. Thereafter, the monthly rent will be adjusted bi-annually on June 1 of the second, fourth, sixth and eighth years of the lease extension by the combined percentage increase in the Consumer Price Index for the previous two years. The rent adjustment will be determined in accordance with the Consumer Price Index, All Urban Consumers, San Francisco Bay Area average for April over April, with the base year being April 20~~0~~15 to April 20~~0~~16.

3.3 If Lessee does not extend this in accordance with section 3.2 hereof, the parties may agree that Lessee continue in possession of the Property as a month-to-month tenant. If the parties so agree, Lessee will pay a monthly rent adjusted beginning August 1, 20~~0~~16 by the percentage change in the Consumer Price Index, All Urban Consumers, San Francisco Bay Area average from October to October with a base year being October 2014~~03~~ to October 2016~~04~~ and subject to all of the terms and conditions of this Lease. The monthly rent would be adjusted annually thereafter each August 1. Either party may terminate the month-to-month tenancy at any time after its commencement by giving the other party 60 days' written

notice in accordance with section 23. If Lessor refuses to agree to Lessee's month-to-month tenancy at the expiration of this Lease's initial term, Lessor will give Lessee written notice of the refusal and Lessee will have 60 days to vacate the Property after expiration of the Lease. If Lessor does not agree to Lessee's continued occupancy for any reason, and the Lessee refuses to surrender the Property and holds over after expiration of the current term or after expiration of a 60 day notice given by the District, then Lessee's continued occupancy of the Property will be considered a month-to-month tenancy at Lessor's sufferance at a monthly rent of $10,200.00, and subject to all of the terms and conditions of this Lease.

4. Use of Property. The Property is being leased to Lessee for any reasonable purpose related to its business of musical instrument sales, service and repair, sound contracting and sound equipment repair and service, musical instruction, and music-related publications. Lessee will not use or permit to be used the Property for any purpose that is not related to the purposes for which the Property has been leased. Lessee will use the Property and its non-exclusive right of access in a manner that ensures that Lessor will at all times have clear access to its well sites, equipment and emergency storage located in the gated yard area adjacent to the Property.

5. Subtenants. Lessee will not sublease the Property or any portion of it to any party unless it first obtains Lessor's written consent. Consent will not be unreasonably withheld. Lessor's approval of any sublease by Lessee will be conditioned on the sub-lessee's written agreement to abide by all of the terms and conditions of this Lease. Lessee will require subtenants to provide indemnification and insurance coverage consistent with the terms and conditions of this Lease and to name Lessor as an additional insured on any and all policies of insurance required hereunder.

6. Compliance with Laws. Lessee will comply with all applicable federal, state and local statutes, ordinances, regulations, orders and other laws relating to the Property and/or Lessee's use and occupancy of the Property. Lessee will obtain all necessary federal, state and local permits, licenses and entitlements necessary for Lessee's use and occupancy of or improvement to the Property.

7. Building Improvements. Lessee, at its sole cost and expense, will be responsible for any improvements to the Property as necessary to accommodate its use. However, Lessee will not make or permit any other person to make any structural alterations or construction and/or installing of real property fixtures or signs to or on the Property without the prior written consent of Lessor, which consent will not be unreasonably withheld. All construction work, if any, relating to improvement of the Property will be performed in a good and workmanlike manner, and will comply with all applicable federal, state and local laws, codes and building and other permit requirements. Lessee will obtain all required County building permits. Lessee will keep the Property free and clear from any and all mechanics or other liens, stop notices, claims and demands for work performed, materials furnished or operations conducted at the Property. On expiration or earlier termination of this Lease, any and all alterations, additions, improvements, fixtures, furnishings, furniture, equipment made, installed or placed in or on the Property by Lessee will become the property of Lessor. Lessor is solely responsible for all improvements, costs of repair, permit fees and penalties that may be required by the County of Sacramento as a result of any existing, unpermitted improvements to the Property made by Lessor prior to Lessee's possession.

8. Maintenance of Property. Lessee will not commit, or allow the commission of, any waste to or nuisance on the Property. Lessee will keep and maintain the Property in good, safe, sanitary and habitable condition and repair, and in compliance with all applicable building and related code standards and laws. Lessee will repair all damage (including both "minor" and "major" repairs) resulting from use of the Property by Lessee or Lessee's employees, agents, contractors, guests or invitees, except that Lessor will be responsible for the proper operation and maintenance of the Property's heating and cooling systems.

9. Access by Lessor. Lessor, and its employees and agents, will have the right to enter the Property upon 24 hours' notice to Lessee, and at any time during an emergency, for the purposes of inspecting the Property to determine whether Lessee is complying with this Lease, or doing other lawful acts that may be necessary or appropriate to protect Lessor's interest in the Property and adjacent areas, or of performing Lessor's duties related to this Lease. For purposes of this access, due consideration will be given to any existing confidentiality or security requirements of Lessee related to its use of the Property.

10. Termination. If Lessee abandons this Lease or if Lessee fails to adequately perform its duties and responsibilities as set forth in this Lease as determined by Lessor's Board of Directors, then Lessor may terminate this Lease before expiration of the term by giving Lessee 30 days written notice in accordance with paragraph 23.

11. Surrender of Property. On expiration or earlier termination of this Lease, Lessee will promptly surrender and deliver the Property to Lessor in as good condition as it was in at the time of Lessee's initial occupancy, excepting ordinary wear and tear.

12. Utilities and Operating Expenses.

12.1 Lessee will pay for telecommunications, garbage and waste removal, security, electrical and gas services to the Property. Lessor will provide water and sewer services to the Property. Lessee also will be responsible for the prompt disposal of garbage and debris generated from its use of the Property that exceeds its normal level of waste removal service.

12.2 Lessee will be responsible for all repairs to and maintenance of the Property, except as provided in paragraph 8.

12.3 Lessee will pay all taxes, assessments, standby charges and other charges levied or imposed by any governmental entity on the Property as a result of any taxable possessory interest created by this Lease.

13. Right of First Refusal. Lessee is granted an irrevocable option to purchase the Property upon the same terms and conditions and at the same price as that of a bona fide purchaser in the open market that Lessor wishes to accept. In the event Lessor wishes to dispose of the Property and to accept a bona fide market offer for its purchase, Lessor will first give Lessee written notice of the offer, stating the name of the proposed purchaser and the terms and conditions and price of the proposed sale. Upon notice of the offer in accordance with section 23 below, Lessee will have a period of 60 days after receipt of the notice in which to agree to purchase the Property from Lessor. If Lessee does not agree to purchase the Property in accordance with the terms and conditions and at the price specified in Lessor's written notice within the 60 day period, then Lessor will have the right

to sell the Property to the bona fide purchaser or any other third party upon the terms and conditions and at the price Lessor wishes. Except as otherwise provided in this Lease and except as provided in Government Code sections 54220 through 54232, Lessor will not sell the Property except in compliance with the foregoing terms and conditions. The right of first refusal granted to Lessee in this section will apply only during the times that Lessee is not in default on this Lease and will terminate upon the expiration of this Lease or upon its sooner termination as provided herein.

14. District's Retention of Property. If the Lessor determines that the Property is not surplus to and is necessary for its long-term needs, it shall notify Lessee of its determination as provided in section 23. Lessee will have a period of 60 days after receipt of notice of Lessor's determination in which to terminate this Lease. If Lessee desires to terminate this Lease in accordance with this section, Lessee will give Lessor at least 60 days written notice of Lessee's intent to terminate and to surrender the Property. Lessee will remain obligated to pay rent to Lessor until the termination date or surrender of the Property, whichever occurs later.

15. Indemnification. Lessee will indemnify, defend, protect and hold harmless Lessor and its officers, employees, volunteers and agents from and against any and all liability, loss, damage, expense, penalties and costs, including attorneys' fees, expert witness fees, investigation costs and litigation costs from the first notice of any claim or demand, of every nature arising out of or in connection with: (1) Lessee's use and possession of the Property; (2) the death or injury of any person or persons, or the damage to or destruction of any personal or real property, and caused or allegedly caused by either the condition of the Property, or some act or omission of Lessee or of some employee, agent, contractor, guest or invitee of Lessee; (3) any work performed on the Property or materials furnished to the Property at the request of Lessee or of any employee, agent, contractor, guest or invitee of Lessee, including, but not limited to, any liability relating to the use, handling or storage of any hazardous or toxic material or substance; and (4) Lessee's failure to perform or otherwise comply with any provision of this Lease. This indemnification provision will not apply to any loss or damage caused by the sole negligence or willful misconduct of Lessor. This indemnification provision will survive the termination of this Lease for any occurrence or event occurring prior to the termination. With respect to any use, handling or storage of any hazardous or toxic material or substance that preceded Lessee's occupancy of the premises, Lessor agrees to hold Lessee harmless and to indemnify, defend and protect Lessee.

16. Insurance.

16.1 Lessee at its sole cost and expense will procure and maintain for the duration of its occupancy of the Property the following types and limits of insurance or self-insurance:

Type	Limits	Scope
General liability	$1,000,000 per occurrence	At least as broad as ISO occurrence form CG00
Workers' compensation	statutory limits	
Property insurance covering Lessee's equipment, furnishings and improvements	full replacement cost	

Building contents full replacement cost

16.2 The general liability policy will be endorsed to name Lessor, its officers, employees, volunteers and agents as additional insureds regarding liability arising out of this Lease. Lessee's coverage will be primary and apply separately to each insurer against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. Lessor's insurance or self-insurance will include Lessee as an additional insured and will be excess and will not contribute with Consultant's insurance. Each insurance policy will be endorsed to state that coverage will not be cancelled, except after 30 days' prior written notice to Lessor. Insurance is to be placed with insurers with a current A.M. Best's rating of A:VII or better unless otherwise acceptable upon notice to and acceptance by Lessor.

16.3 Upon execution of this Lease and annually thereafter, Lessee will provide to Lessor and Lessor the following proof of insurance: (a) certificate(s) of insurance evidencing this insurance; and (b) endorsement(s) of ISO Form CG2010 (or insurer's equivalent), signed by a person authorized to bind coverage on behalf of the insurer(s), and certifying the additional insured coverage.

17. Damage and Destruction to Property. If the Property is destroyed, partially destroyed or damaged, then Lessor will have the option in its sole discretion to either (a) repair, rebuild and restore the Property (but not including fixtures, furnishings, equipment and improvements installed or furnished by Lessee) to substantially the same condition as it was in immediately prior to the destruction or damage, or (b) terminate this Lease by giving notice of termination to Lessee as provided in paragraph 10.

18. Condemnation. If at any time during the term of this Lease, title and possession of the property is taken under the power of eminent domain by any public or quasi-public agency or entity, this Lease will terminate as of the date that actual physical possession of the Property is taken by the agency or entity. Any just compensation, damages or other payment for the taking of the Property will be awarded to and be the sole property of Lessor, except for any leasehold compensation which may be awarded to Lessee by a court of competent jurisdiction.

19. Restriction against Assignment. Except for a subtenant approved in accordance with paragraph 5, Lessee will not sublet, encumber, assign or otherwise transfer this Lease, or any right or interest in this Lease, or any right or interest in the Property, without first obtaining the written consent of Lessor, which consent will not be unreasonably withheld, but which consent may be subject to a written assumption and/or reasonable amendment of this Lease.

20. Default. In the event of any default by lessee under this Lease, in addition to any other remedies available to Lessor at law or in equity, Lessor will have the right to terminate this Lease and all rights of Lessee hereunder by giving written notice of termination as required by law.

21. Entire Agreement. This Lease constitutes the sole, entire and integrated agreement among the parties concerning the subject matter addressed herein, and supersedes all prior negotiations, representations or agreements, either oral or written, that may be related to the subject matter of this Lease. This Lease may be modified or amended only by a subsequent written agreement approved

and executed by both parties. Approval by Lessor requires approval by its Board of Directors and execution by its President or his designee.

22. Negotiated Agreement. The parties agree and acknowledge that this Lease has been arrived at through negotiation, and that each party has had a full and fair opportunity to review it with counsel of their choosing and to revise its terms. Consequently, the normal rule of construction that any ambiguities are to be resolved against the drafting party will not apply in construing or interpreting this Lease.

23. Notices. Any notice or other communication required or permitted to be given under this Lease will be in writing and either served personally, by electronic mail if the receiving party acknowledges receipt of the electronic mail, or sent by prepaid, first class U.S. mail and addressed as follows:

Lessor:
General Manager
Sacramento Suburban Water District
3701 Marconi Ave, Suite 100
Sacramento, CA 95821
E-mail: administration@sswd.org

Lessee:
President
Skip's Music, Inc.
2740 Auburn Boulevard
Sacramento, CA 95821
E-mail: skip@skipsmusic.com

24. California Law. This Lease will be deemed to have been entered into in the County of Sacramento, State of California, and it will be governed by and in accordance with the laws of the State of California.

25. Severability. If any provision of this Lease is held to be unenforceable, the remainder of this Lease will be severable and remain in full force and effect.

26. Successors. Subject to paragraph 17, this lease will bind and inure to the benefit of the successors, assigns and transferees of the parties.

27. Waiver. Any waiver at any time by either party of its rights with respect to a default or breach of this Lease will not be deemed to be a waiver with respect to any other default or breach.

Lessor:

SACRAMENTO SUBURBAN WATER DISTRICT

_____
President, Board of Directors

Lessee:

SKIP'S MUSIC, INC.,

_____
Skip Maggiora, President

Attest:

_____

Secretary

Return to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Facilities & Operations Committee
Agenda Item: 2

Date: May 29, 2014

Subject: Service Size Billing Issue – Large Lots

Staff Contact: Jim Arenz, Operations Manager

Recommended Committee Action:
This is an information item. No action necessary.

Discussion:
In August 2013, the District initiated the Arden Oaks Water Main Replacement Project. Staff was assigned the task of verifying service locations, service line size and service line material in advance of the District contractor initiating their work. This data would be used to ensure the correct service lateral size correlated accurately with customers billing rates. Upon obtaining this information it became apparent there were significant discrepancies between the actual service line size and billing rate information on numerous accounts. This prompted staff to investigate whether the results discovered in Arden Oaks were isolated to only that area, or prevalent among all large lot, flat service rate parcels throughout the District.

As a result, in February 2014 staff completed a query of the GIS database to create a list of all large lot, flat service rate parcels in the District, similar to those found in the Arden Oaks area. Upon completion of the query, 73 parcels were identified that warranted an investigation. Staff visited each of these parcels to locate and expose the service line to accurately identify its size, which was then compared to the current billing rate information for each property. Listed below are the results of the service line size verifications performed on the parcels identified in this effort.

- 24 accounts were being provided water through a 1 inch service lateral and being billed at a ¾ inch flat rate.
- 5 accounts were being provided water through a 1-½ inch service lateral and being billed at a ¾ inch flat rate.
- 1 account was being provided water through a 1-½ inch *metered* service lateral and being billed at a ¾ inch flat rate.
- 43 accounts were being billed correctly for the appropriate service lateral size.

The results indicate a 41% discrepancy between the service size and billing rate associated with the large lot, flat service rate parcel identified in this project.

All of the discrepancies discovered during this project were found to be in the customer's favor as each was being billed for a smaller service connection size than they were being provided. Each of the affected customers was subsequently notified of the error via a letter (see Exhibit 2) that indicated the pending change in their billing rate based on the newly identified service line size. The letter also provided an option for the customer to downsize to a ¾ inch metered service with no change in billing until their respective area was automatically changed to a metered rate. All of these discrepancies have since been corrected and only 5 customers opted for the service downsize.

Staff will continue to conduct an analysis on flat rate service, based on lot size.

Fiscal Impact:

Although the District will see a slight increase in monthly revenue from the billing adjustments, the fiscal impact as a result of this project is minimal.

Strategic Plan Alignment:

Facilities and Operations – 2.B. Monitor and improve the District's efficiencies in operating and maintaining system infrastructure.

Customer Service – 3.D. Provide effective customer and community relations by communicating, educating, and providing information on the District and drinking water issues.

Return to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Facilities & Operations Committee

Agenda Item: 3

Date: May 30, 2014

Subject: Antelope Pump Back Project – Memorandum of Understanding

Staff Contact: John E. Valdes, Engineering Manager

Recommended Committee Action:
Receive report regarding the draft Memorandum of Understanding (MOU) between San Juan Water District and Sacramento Suburban Water District for the Antelope Pump Back Project. Direct staff to bring the MOU to the full Board with a recommendation to approve MOU, attached as Exhibit 1.

Discussion:
The District is proceeding with final design of the Antelope Pump Back project. This project will construct a booster pump station to pump groundwater from Sacramento Suburban Water District (SSWD) North Service Area (NSA) into the Antelope and Cooperative Transmission Pipelines (CTP) for conveyance to the various San Juan Water District (SJWD) retail customers.

As previously reported to the committee, a MOU is needed between the District and SJWD to spell out the understanding of each District regarding the planning, design, engineering, construction, and construction administration for the proposed construction of a pump-back booster pump station. A draft MOU was presented to the Facilities and Operations (F&O) Committee at their meeting on May 13, 2014. However, it had not yet been reviewed by SJWD's Legal Affairs Committee, which met on May 19, 20914. SJWD's Legal Affairs Committee had some suggested revisions to the language in the final MOU. Following further discussions between staff of each District, a final MOU was prepared. A separate copy of the MOU showing the changes made since the May F&O Committee Meeting is attached as Exhibit 2 (the changes are shown in redline/strikeout format).

The MOU is scheduled for Board review and approval at the District's June 16, 2014 regular Board meeting. The MOU is scheduled to be presented to SJWD's full Board on June 25, 2014. Note that a formal agreement for the ownership, operation, maintenance, and capital replacement of the project must still be prepared.

Fiscal Impact:
The estimated total cost of the project is $2.9 million. This cost would be shared by SSWD and SJWD. Some available grant funds will be used to offset this cost.

Strategic Plan Alignment:
Facilities and Operations – 2.B. Monitor and improve the District's efficiencies in operating and maintaining system infrastructure.

Facilities and Operations – 2.C. Develop cost-effective strategies utilizing appropriate technology and other available resources to achieve optimization in delivery of water and enhance service.

This project is in agreement with these goals because this project will provide for conjunctive use opportunities and groundwater substitution transfers. This project will also allow SSWD operators more operational flexibility by moving water into the Arvin Area to improve water service and reliability.

Exhibit 1

MEMORANDUM OF UNDERSTANDING REGARDING THE SAN JUAN WATER DISTRICT AND SACRAMENTO SUBURBAN WATER DISTRICT ANTELOPE PUMP-BACK BOOSTER PUMP STATION PROJECT

This Memorandum of Understanding ("MOU") regarding the planning, design and engineering for a joint pump-back station is made effective on June XX, 2014, by and between the San Juan Water District ("SJWD") and Sacramento Suburban Water District ("SSWD"), both California public agencies with the authority to carry out the project described herein. SJWD and SSWD are collectively referred to herein as the "Agencies" and individually as an "Agency."

RECITALS

A. The purpose of this MOU is to document the understanding of the Agencies regarding the planning, design, engineering, construction, and construction administration for the proposed construction of a pump-back station, which the Agencies would jointly own, operate and maintain and which would be called the Antelope Pump-Back Booster Pump Station (the "Project"). This MOU is intended to govern the allocation of responsibilities and costs for the joint design, engineering, planning and construction phase work undertaken by SJWD and SSWD while they develop a formal agreement for the ownership, operation, maintenance, and capital replacement of the Project.

B. The Project is intended to provide groundwater supplies to SJWD during dry years, planned outages of United States Bureau of Reclamation ("USBR") or SJWD's Water Treatment Plant facilities, or emergencies when SJWD's surface water supplies are reduced. SJWD relies on surface water diverted from Folsom Reservoir as its main supply source, but that source is inadequate for supplying the desired minimum levels of service to SJWD if deliveries from Folsom Reservoir are compromised by USBR operations, drought or system failure. A new pump-back facility would supplement SJWD's water supplies during times of limited surface water availability from Folsom Reservoir. In addition, SSWD will benefit from the Project by installing facilities to pump water from the northern-most portion of SSWD's North Service Area (NSA) where the Project will be located to the southern portion of the NSA to improve the water supply reliability within that zone.

C. The Project will be located at SSWD's Antelope Pressure Reducing Station Site on Antelope North Road within the SSWD service area. The Project will enable the Agencies to pump groundwater supplies to areas where those supplies are needed. Operational SCADA controls and flow meters will be installed to facilitate this new pumping system.

D. SSWD has contracted with Domenichelli & Associates to conduct planning and engineering studies and to design the Project. SJWD and SSWD staffs are cooperating on the

design of the Project and providing necessary information and data related to that design to Domenichelli & Associates.

E. The initial engineering studies for the Project indicate that SSWD currently has sufficient groundwater supplies to deliver approximately 10,000 gallons per minute ("gpm"), or 14.4 million gallons per day ("MGD") to the Project. Although it is the intent to maintain or increase available groundwater supplies for the project, the Agencies understand that the available groundwater supply may change in the future based on increased or decreased SSWD customer demands, changes in groundwater quality or regulations, decommissioning of existing wells, addition of new wells, success of conservation programs, or other unforeseen circumstances. Ownership in the Project facilities by SJWD does not imply or provide ownership in the existing SSWD groundwater supply or other facilities necessary to utilize the Project.

F. As design, engineering, and construction work progresses, SJWD and SSWD will negotiate and prepare an Agreement for Ownership, Utilization, Operation and Maintenance of the Project (the "Agreement"). The Agencies intend that the Project will be jointly owned according to the final allocation of its construction cost; however, the Agreement will determine the Agencies' respective ownership of the Project and allocate capacity and costs for operation, maintenance, capital replacements and repairs of the Project.

G. Groundwater supplies pumped by the Project will be delivered through existing, and potentially new, transmission and distribution system facilities. Any agreements necessary for the utilization, operation, maintenance, capital replacements and repairs of those transmission and distribution facilities will be separate from, and are not covered by this MOU and future Agreements for the Project.

H. SSWD has been paying the costs for and directing Domenichelli & Associates' work required to complete preliminary investigations, initial planning, design, and engineering work for the Project. The Agencies have agreed that SSWD will continue to manage and direct the Project planning and design work. SJWD will actively participate in the planning process, design reviews, and other project activities to ensure that the project meets both agencies' needs.

I. The Agencies agree that there is a need to construct the Project and desire to avoid delay in its planning, design, engineering, and construction. This MOU is intended to facilitate that work by providing a written understanding between the Agencies on the scope of the Project and a basis for cost sharing prior to finalizing and executing the Agreement.

UNDERSTANDING

1. Incorporation of Recitals. The Agencies agree that foregoing recitals are true and that they are incorporated herein by reference.

2. Lead Agency. SSWD will continue to act as lead Agency for the planning, design and engineering phases of the Project and will provide primary direction to Domenichelli & Associates and/or other Consultants contracted to work on the Project. SJWD and SSWD will cooperate to ensure that the Project is designed to meet both Agencies' requirements and will share all information and data required to enable Consultants to perform all tasks necessary to plan, design and engineer the Project. SSWD will also act as lead during the bidding and construction phase of the Project and will provide primary direction for construction management and inspection. SJWD will participate and assist during the bidding and construction phase to ensure the constructed facilities meet both Agencies' requirements.

3. Scope of MOU. The Agencies agree this MOU covers Project work completed before the date of this MOU through the expiration or termination of this MOU, as provided in Section 9 below.

4. Project Scope. The Agencies intend that the Project be designed with the following benefits provided to SJWD and SSWD:

a. SJWD:

- Provide pumping capacity of 10,000 gpm, with space reserved within the Project footprint to install an additional 5,000 gpm pump and controls.
- Provide improved water supply reliability during drought or Folsom Reservoir low level conditions and/or extended emergency or planned outages of USBR or SJWD's Water Treatment Plant facilities.
- Provide a minimum supplemental water supply of 11 MGD to satisfy at least minimum levels of service demand in the portions of SJWD's service area that do not have access to water supplies other than Folsom Reservoir.
- Allow for improved system operations during dry year, planned outages, and emergency conditions to maximize well production in the existing wholesale service area.
- Increase opportunities for SJWD to participate in conjunctive use projects.
- Increase SJWD's opportunities to execute water transfers by providing access to a more diverse water supply portfolio.

b. SSWD:

- Install a low-head 2,000 gpm to pump water from the northern-most portion of the NSA to the southern portion of the NSA to improve the water supply reliability within the southern zone.

- Install SCADA controls and flow meters to facilitate the new pumping system, which will permit SSWD staff to increase the NSA's operational flexibility.
- Increase SSWD's opportunities to execute water transfers by providing access to a more diverse water supply portfolio.
- Increase the sustainability of the groundwater basin through increased in-lieu water banking opportunities.
- Maximize SSWD's capital investment in the CTP by increasing pumping options.

5. Cost Sharing.

a. The total costs for planning, design, construction, and construction administration for the Project is estimated to be approximately $2,900,000 based on a March 14, 2014 cost estimate prepared by Domenichelli & Associates. SJWD's and SSWD's respective obligations to pay the estimated total cost of the Project will be reduced by the net amount of grant funding received as provided in Section 7 of this MOU. The Agencies have agreed that SJWD will pay approximately 79 percent of the costs of the Project work and SSWD will pay approximately 21 percent of the Project costs based on Domenichelli & Associates' cost estimate breakdown. The Project cost estimate and cost allocations will be updated from time to time as the Project work progresses and finalized when construction bids are received. The Agencies agree that the final Project costs may vary by 10 percent and the final cost allocations may vary by 5 percent from the March 14, 2014 estimate without the need to renegotiate this MOU.

b. SSWD has already incurred costs for the planning and pre-design of the Project, for which SSWD will invoice SJWD using the above cost allocation.

c. The foregoing cost allocation also will apply to costs incurred for legal work, work performed by other consultants, permits, and/or other direct costs related to this MOU.

d. The Agencies agree that each agency will be responsible for its own staff time and expenses to administer the Project work.

6. Invoices and Payments. SSWD will provide itemized invoices to SJWD monthly. SJWD will pay all invoices received from SSWD for Project work within 30 days of receipt.

7. Grant Funding. SSWD has secured two grants that it may be permitted to apply to the costs of the Project. One grant is in the amount of $264,000 with an expiration date of June 1, 2016 and was awarded by the California Department of Water Resources under a Proposition 84 Implementation Grant. The second grant was awarded by USBR in the amount of $300,000 for SSWD to construct an in-conduit hydroelectric generation facility and pump-back project. Because of timing and SSWD's decision not to construct the in-conduit hydro facility, USBR

may reduce the amount of this grant. The Agencies are also pursuing other grant opportunities. The Agencies have agreed that the total amount of all available grant funds will be applied without allocation to the total cost of the Project and that only the remaining unfunded costs of the Project will be allocated in accordance with Section 5 of this MOU.

8. Participation by Others. The Agencies acknowledge that SSWD has agreed to design the Project to include a connection that may be used in the future by others, potentially including the City of Roseville. SSWD will pay the costs of planning, designing and constructing this connection from its share of Project costs and will negotiate separately with the City of Roseville or others for any cost-sharing or reimbursement for this connection.

9. Term of MOU. This MOU will be effective as of the effective date stated above and will remain in effect until the execution of an Agreement for Ownership, Utilization, Operation and Maintenance of the Project. This MOU also may be terminated by either SJWD or SSWD upon 30 days' written notice to the other Agency.

10. Amendment. The terms of this MOU may be modified or amended only by written amendment approved and executed by both Agencies.

11. Cooperation. SJWD and SSWD will reasonably cooperate with each other, including the execution of all necessary documents and providing of all information and data required to carry out the purpose and intent of this MOU.

12. Counterparts. This MOU may be executed in two or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

SAN JUAN WATER DISTRICT:

By: _____
Shauna Lorance
General Manager

SACRAMENTO SUBURBAN WATER DISTRICT:

By: _____
Robert S. Roscoe
General Manager

Exhibit 2

MEMORANDUM OF UNDERSTANDING REGARDING THE SAN JUAN WATER DISTRICT AND SACRAMENTO SUBURBAN WATER DISTRICT ANTELOPE PUMP-BACK BOOSTER PUMP STATION PROJECT

This Memorandum of Understanding ("MOU") regarding the planning, design and engineering for a joint pump-back station is made effective on ~~May 28~~June XX, 2014, by and between the San Juan Water District ("SJWD") and Sacramento Suburban Water District ("SSWD"), both California public agencies with the authority to carry out the project described herein. SJWD and SSWD are collectively referred to herein as the "Agencies" and individually as an "Agency."

RECITALS

A. The purpose of this MOU is to document the understanding of the Agencies regarding the planning, design, engineering, construction, and construction administration for the proposed construction of a pump-back station, which the Agencies would jointly own, operate and maintain and which would be called the Antelope Pump-Back Booster Pump Station (the "Project"). This MOU is intended to govern the allocation of responsibilities and costs for the joint design, engineering, planning and construction phase work undertaken by SJWD and SSWD while they develop a formal agreement for the ownership, operation, maintenance, and capital replacement of the Project.

B. The Project is intended to provide groundwater supplies to SJWD during dry years, planned outages of United States Bureau of Reclamation ("USBR") or SJWD's Water Treatment Plant facilities, or emergencies when SJWD's surface water supplies are reduced. SJWD relies on surface water diverted from Folsom Reservoir as its main supply source, but that source is inadequate for supplying the desired minimum levels of service to SJWD if deliveries from Folsom Reservoir are compromised by USBR operations, drought or system failure. A new pump-back facility would supplement SJWD's water supplies during times of limited surface water availability from Folsom Reservoir. In addition, SSWD will benefit from the Project by installing facilities to pump water from the northern-most portion of SSWD's North Service Area (NSA) where the Project will be located to the southern portion of the NSA to improve the water supply reliability within that zone.

C. The Project will be located at SSWD's Antelope Pressure Reducing Station Site on Antelope North Road within the SSWD service area. ~~The Antelope Pressure Reducing Station is a major connection between SSWD and SJWD at the end of the Cooperative Transmission Pipeline ("CTP"), which normally provides surface water from the SJWD Water Treatment Plant to SSWD and SJWD customers.~~ The Project will enable the Agencies to pump groundwater

supplies to areas where those supplies are needed. Operational SCADA controls and flow meters will be installed to facilitate this new pumping system.

D. SSWD has contracted with Domenichelli & Associates to conduct planning and engineering studies and to design the Project. SJWD and SSWD staffs are cooperating on the design of the Project and providing necessary information and data related to that design to Domenichelli & Associates.

E. The initial engineering studies for the Project indicate that SSWD currently has sufficient groundwater supplies to deliver approximately 10,000 gallons per minute ("gpm"), or 14.4 million gallons per day ("MGD") to the Project. Although it is the intent to maintain or increase available groundwater supplies for the project, the Agencies understand that the available groundwater supply may change in the future based on increased or decreased SSWD customer demands, changes in groundwater quality or regulations, decommissioning of existing wells, addition of new wells, success of conservation programs, or other unforeseen circumstances. Ownership in the Project facilities by SJWD does not imply or provide ownership in the existing SSWD groundwater supply or other facilities necessary to utilize the Project.

~~E~~F. As design, engineering, and construction work progresses, SJWD and SSWD will negotiate and prepare an Agreement for Ownership, Utilization, Operation and Maintenance of the Project (the "Agreement"). The Agencies intend that the Project will be jointly owned according to the final allocation of its construction cost; however, the Agreement will determine the Agencies' respective ownership of the Project and allocate capacity and costs for operation, maintenance, capital replacements and repairs of the Project.

G. Groundwater supplies pumped by the Project will be delivered through existing, and potentially new, transmission and distribution system facilities. Any agreements necessary for the utilization, operation, maintenance, capital replacements and repairs of those transmission and distribution facilities will be separate from, and are not covered by this MOU and future Agreements for the Project.

~~F~~H. SSWD has been paying the costs for and directing Domenichelli & Associates' work required to complete preliminary investigations, initial planning, design, and engineering work for the Project. The Agencies have agreed that SSWD will continue to manage and direct the Project planning and design work. SJWD will actively participate in the planning process, design reviews, and other project activities to ensure that the project meets both agencies' needs.

~~G~~I. The Agencies agree that there is a need to construct the Project and desire to avoid delay in its planning, design, engineering, and construction. This MOU is intended to facilitate that

work by providing a written understanding between the Agencies on the scope of the Project and a basis for cost sharing prior to finalizing and executing the Agreement.

UNDERSTANDING

1. Incorporation of Recitals. The Agencies agree that foregoing recitals are true and that they are incorporated herein by reference.

2. Lead Agency. SSWD will continue to act as lead Agency for the planning, design and engineering phases of the Project and will provide primary direction to Domenichelli & Associates and/or other Consultants contracted to work on the Project. SJWD and SSWD will cooperate to ensure that the Project is designed to meet both Agencies' requirements and will share all information and data required to enable ~~Domenichelli & Associates~~Consultants to perform all tasks necessary to plan, design and engineer the Project. SSWD will also act as lead during the bidding and construction phase of the ~~p~~Project and will provide primary direction for construction management and inspection. SJWD will participate and assist during the bidding and construction phase to ensure the constructed facilities meet both Agencies' requirements.

3. Scope of MOU. The Agencies agree this MOU covers Project work completed before the date of this MOU through the expiration or termination of this MOU, as provided in Section ~~6~~9 below.

4. Project Scope. The Agencies intend that the Project be designed with the following benefits provided to SJWD and SSWD:

a. SJWD:

- Provide pumping capacity of 10,000 ~~gallons per minute ("gpm")~~, with space reserved within the Project footprint to install an additional 5,000 gpm pump and controls.
- Provide improved water supply reliability during drought or Folsom Reservoir low level conditions and/or extended emergency or planned outages of USBR or SJWD's Water Treatment Plant facilities.
- Provide a minimum supplemental water supply of 11 ~~million gallons per day~~MGD to satisfy at least minimum levels of service demand in the portions of SJWD's service area that do not have access to water supplies other than Folsom Reservoir.
- Allow for improved system operations during dry year, planned outages, and emergency conditions to maximize well production in the existing wholesale service area.
- ~~—~~Increase opportunities for SJWD to participate in conjunctive use projects.
- ~~—~~

- Increase SJWD's opportunities to execute water transfers by providing access to a more diverse water supply portfolio.

b. SSWD:

- Install a low-head 2,000 gpm to pump water from the northern-most portion of the NSA to the southern portion of the NSA to improve the water supply reliability within the southern zone.
- Install SCADA controls and flow meters to facilitate the new pumping[22] system, which will permit SSWD staff to increase~~optimize~~ the NSA's operational flexibility~~capabilities~~.
- Increase SSWD's opportunities to execute water transfers by providing access to a more diverse water supply portfolio.
- Increase the sustainability of the groundwater basin through increased in-lieu water banking opportunities.
- Maximize SSWD's capital investment in the CTP by increasing pumping options.

5. Cost Sharing.

a. The total costs for planning, design, construction, and construction administration for the Project is estimated to be approximately $2,900,000 based on a March 14, 2014 cost estimate prepared by Domenichelli & Associates. SJWD's and SSWD's respective obligations to pay the estimated total cost of the Project will be reduced by the net amount of grant funding received as provided in Section 7 of this MOU. The Agencies have agreed that SJWD will pay approximately 79 percent of the costs of the Project work and SSWD will pay approximately 21 percent of the Project costs based on Domenichelli & Associates' cost estimate breakdown. The Project cost estimate and cost allocations will be updated from time to time as the Project work progresses and finalized when construction bids are received. The Agencies agree that the final Project costs may vary by 10 percent and the final cost allocations may vary by 5 percent from the March 14, 2014 estimate without the need to renegotiate this MOU.

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SAN JUAN WATER DISTRICT:

By: _____
Shauna Lorance

SACRAMENTO SUBURBAN WATER DISTRICT:

By: _____
Robert S. Roscoe

General Manager

General Manager

Return to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Facilities & Operations Committee
Agenda Item: 4

Date: May 29, 2014

Subject: Information Technology Master Plan

Staff Contact: Dan York, Assistant General Manager

Recommended Committee Action:
Receive Information Technology Master Plan cost expectations over the next 5 years, attached as Exhibit 1. Provide direction to staff.

Discussion:
In 2013 staff, along with the professional consulting services of SOPHOS LLC, began preparing an Information Technology Master Plan (ITMP) for the years 2014 through 2018. The purpose of the ITMP was to design the "next generation" of IT systems for the District. In 2005 through 2007, the District invested significant amounts in implementing multiple software systems and a hardware infrastructure. Since that time, the systems have been enhanced and turned into robust technological tools that allow staff to operate more efficiently and accurately. Indeed, such investments have allowed District staffing levels to remain relatively unchanged for the past seven years (2007 – 59 staff versus 62 today.)

The draft ITMP was presented to the Finance & Audit Committee on May 14, 2014. The committee accepted the draft ITMP and commented to staff that they appreciated the information and requested that it be brought before the full Board.

Fiscal Impact:
Attention is directed to page 6 of the ITMP that provides annual and total costs for IT projects through 2018. Uninflated total costs are expected to be roughly $2.3 million during this five year period, with $0.4 million to be spent in the current year (adopted by Board in 2014 budget.)

Strategic Plan Alignment:
Facilities and Operations – C. Develop cost-effective strategies utilizing appropriate technology and other available resources to optimize delivery of water and enhance service.

Facilities and Operations – E. Provide information technology systems that will facilitate the availability of timely and accurate information and enable provision of superior service.

Facilities and Operations – F. Safeguard the District's electronic data.

Sacramento Suburban Water District

Information Technology Master Plan

May 2014

SACRAMENTO SUBURBAN WATER DISTRICT

Information Technology Master Plan (ITMP)

Improving the delivery of products and services to Customers through the use of technology

October 2013

Sacramento Suburban Water District
3701 Marconi Ave, Suite 100
Sacramento, CA 95821

Tel. 916-972-7171
www.sswd.org

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Executive Summary

The Information Technology Master Plan (ITMP) is a guide for solidifying the District's existing, sound investments in information technology (IT) and moving ahead with improvements that will ensure continued delivery of reliable services and products.

The ITMP recognizes the strengths in the District's commitments to the important role that information technology plays in relation to improving business processes, such as:

- The 2005 technology implementation improvement project that ushered in the current technology environment at the District;
- The continual enhancement to the District's information technologies through investment in necessary system solutions;
- The ability of the District to best serve the needs of its customers through appropriate investments in information technologies;
- Efficient and flexible IT infrastructure of servers, networks, storage, telecommunications and remote access that has enabled District staff to have their information "anywhere and anytime";
- The willingness of the staff to learn and utilize the IT systems and tools; and
- The District's recognition in the water industry as being progressive and advanced in its use of information technology to support efficient operations.

This ITMP identifies a series of strategic IT business challenges facing the District that are familiar to many water agencies:

- Continuous improvement in business process efficiency.
- Managing the vast amount of data and documents.
- Keeping staff trained and up to date in their use of District IT systems.
- Greater leveraging of existing IT investments.
- Streamlining, reporting and improving decision making.
- Keeping up-to-date with security and computer threats.

Strategies and programs

The District's ITMP creates a bridge between business strategies and the IT systems that support them. It highlights the IT priorities and the strategies and initiatives that will be required in future years to execute the ITMP.

The following strategies listed in the plan are intended to address the District's IT business challenges.

1. Utilizing a single computing platform (i.e., MS Windows)
2. Standardizing hardware in concert with a plan to maximize reliability and performance.
3. Virtualizing computing resources.
4. Utilizing a single database platform (i.e., MS SQL Server)
5. Having District data elements maintained in one host system and replicated to non-host systems.
6. Users of data being responsible for data quality.
7. Utilizing a "Best-Of-Breed" approach to software applications.

8. Utilizing geographic information system (GIS) as the backbone to the information access platform.
9. Utilizing browser – based client user interfaces.
10. Engaging appropriate cross-functional teams in designing business process optimization.
11. Integrating the various business processes with application processes.

To put these strategies into action, the ITMP defines the following eight programs, or business focus areas, and describes the commitment to program ownership that is required for success.

1. Resources, Standards and Governance.
2. Customer Service and Billing Management.
3. Financial Management and Business Intelligence.
4. IT Infrastructure.
5. Enterprise Asset Management.
6. Operations Management.
7. Maintenance Management.
8. Document Management.

2013-2018 course of action

Initially, only projects for 2013 and 2014 have been prioritized. Decisions regarding the prioritization for projects in 2015 to 2018 will be done during 2014 aided by the improvements implemented in 2013 and 2014.

The primary goals for 2013 and 2014 follow:

- **Migrating applications to browser based interfaces with service oriented architectures.**
  - Replace the current CSM customer service and billing application. Continue to improve customer service and information tools available.
  - Focus on upgrading the GIS environment to ArcGIS server and develop the in-house skills necessary to extend and enhance this application environment.
  - Focus on upgrading the Cityworks Computerized Maintenance Management System (CMMS) environment to Cityworks server.
  - Develop the skills required to extend the browser interface to obtain greater integration in other applications.

- **Continue to seek additional ways to leverage current technologies and streamline processes.**
  - Focus on virtualizing server environments to reduce number of physical machines to manage which will reduce power consumption and cooling requirements.
  - Continue to migrate applications to MS SQL Server database platform to align with the District's single database platform strategy.
  - Maintain current momentum with users regarding data ownership.
  - Engage appropriate Cross-Functional Teams in designing Business Process Optimization solutions.
  - Continue to seek additional efficiencies by integrating business processes and application processes.

IT resources

The ITMP recommends having GIS staff report to the IT Manager to gain whatever efficiencies in operation might be available to address the recommended projects and tasks identified in this ITMP. If the gleaned efficiencies from combining GIS staff and the IT Manager prove to be insufficient, then additional consulting dollars will need to be budgeted to address the resource shortfalls. If both these additional resources still prove insufficient, then the hiring of an additional staffing resource may be necessary. The addition to staff would effectively increase IT head count from 1.5 to 2.0 FTEs and GIS headcount from 2.5 to 3.0 FTEs. These increases will also allow the District to better leverage the IT Manager's skills and allow the expansion of GIS services to District staff, customers and other stakeholders.

Estimated budget

The ITMP includes an estimated six-year budget of $2.3 million that was developed by Sophos Solutions consultants familiar with the District's existing IT strategies and goals and with the cost of similarly sized efforts implemented by other utilities.

The following table summarizes the IT capital investment required over the six-year plan horizon and shows annual expenditures as a percentage of the total.

Program	2013 Committed	2014 Planned	2015 Planned	2016 Planned	2017 Planned	2018 Planned	2013-2018 Total
IT Master Plan Budgets*	$410,400	$397,500	$554,500	$484,500	$188,500	$223,500	$2,258,900
Percentage of Total	18%	18%	25%	21%	8%	10%	100%

*(Note: Establishing a more accurate budget for the ITMP at this time is challenging for a number of reasons. The most significant being the difficulty in determining to what degree the District's own personnel can provide expertise in a variety of roles versus the amount of professional consulting required to either coach those functions or perform specialized tasks.)

*****

The recommended IT strategies, programs and projects in the plan are aligned with the District's business strategies, goals and principles. They account for the District's existing IT strengths and encompass not only required information technology investments, but also the staff resources essential in moving the ITMP forward and attaining the benefits it identifies.

In the end, IT is a cornerstone of the District's overall operational excellence. The pace and degree of improvement in IT systems and functionality, along with the increased ability of staff to utilize IT effectively, bears directly on the District's overall capability to maintain and improve its services to its customers.

Background

When the District was formed in 2002, the IT environment consisted of various technologies that existed in both predecessor water districts (Arcade and Northridge water districts). At that time certain technologies were selected from one or the other district for use in the new SSWD. However, some of the systems selected to remain in place were arcane and difficult to use even at that time and were not very flexible when it came to reporting operational information. For example, the Customer Information System (CIS) and Accounting System (FIS) were on a windows based system that used a proprietary database. Support was extremely expensive for these two systems. GIS was used primarily by the engineering department to publish various maps for internal users and, sometimes, external users. No District-wide access to GIS information existed. Further, there was no Computerized Maintenance Management System (CMMS) at the District. Work orders were completed on paper only. All other information processes were performed using spreadsheets or manual paper forms.

In 2004, The District hired an IT Manager to focus on getting the District's technology assets functioning effectively. The IT Manager started to implement standards for the various computing platforms at the District. This included standardizing on Microsoft (MS) Windows systems and software for computer operating systems, databases, applications and tools. During 2005, the District embarked on a program to implement an integrated set of applications that would; 1) replace the inflexible and expensive "Comet" customer billing and accounting system, 2) make GIS fully functional and available to all District employees, 3) implement a CMMS to track all maintenance activities, and 4) enable access to District systems remotely, primarily from operation's staff vehicles. This platform would become the core that would allow other business critical applications to communicate and share information with each other and be available from virtually anywhere. In 2006, the new integrated system was fully implemented and the District was beginning to reap the benefits of having an integrated core set of applications. This foundation has allowed the District to expand its technology offerings to other District functions and processes with increasingly positive results, especially demonstrated in staff efficiency and time.

Over the past six years the District's IT department has implemented additional IT systems that integrate and share data with this core application environment. These include:

1. DigSmart: Automated USA tracking and reporting.
2. Customer Web: Portal to allow customers to retrieve account information and pay bills on-line.
3. IVR: Phone system application to allow customers to use the phone to retrieve their personal account data, pay bills, and listen to service outages.
4. Tokay: Backflow management and reporting.
5. On-Base: enterprise-wide electronic document management system.
6. PDC: Production Data Capture for recording and reporting of production information.
7. 3Com Call Center: To allow for the routing of calls through the customer call center.
8. RTA Fleet Management Software: To provide tracking of maintenance activities for district vehicles and facilities.

The strategies deployed in 2005 have allowed the District to: 1) standardize on a computing platform that has a large number of trained resources available (Microsoft trained resources) both inside and outside of the District; is easier to support than heterogeneous environments made up of various computing

platforms (fewer system experts are needed to manage the single MS platform); and, 3) is an "open-architecture" allowing information exchange between all District computing systems.

The District's current systems are support by 1.5 FTEs which are employed by the District whom are further supported by various consultants and value added resellers (VARs) who provide specialized technical expertise when needed.

While there have been numerous strategies deployed by the IT department not all have been formally documented. This ITMP is the result of efforts by the IT Department to formally document the Strategies, Goals, and Objectives that will drive future IT decisions and initiatives.

Current Assessment of IT Environment

This section of the ITMP addresses the current state or condition of the technology environment at the District. Workshops were held with executive management and every department to gain insight into perceptions and realities of where the current technology environment is strong and where it is weak from the perspective of the users who rely on the information contained in the District's systems. A review of the strategies put into place in 2005 has been performed to determine if the District has achieved its stated IT goals and objectives. These user workshops revealed the strengths, weaknesses, opportunities and challenges of the District related to its current IT environment.

Outcomes from Previous Planning and Goal Setting

This section will describe the results of the implementation of strategies governing IT objectives put into place in 2005. The following is a list of the 2005 strategies that were put into place and the level of satisfaction stated by the employees in achieving the stated goals:

1. 2005 Goal: Implement computing systems and platforms that integrate with each other and can share information easily.

   Current Assessment: All of the major (core) applications and all of the ancillary applications can and do share information with each other. The District is continually looking for ways to improve the exchange of information between systems to improve information retrieval and reporting. Employees expressed satisfaction with the level of integration achieved.

2. 2005 Goal: Maintain Master Data elements in one core system.

   Current Assessment: This strategy is focused on not having duplicate master data maintained in more than one system. This means that for each master data element the data element is updated in one system then is used by any other system needing that master data element. For performance reasons master data may be automatically copied to another system but is not maintained by the other system. At this time all master data elements are maintained in their respective host systems. Employees expressed satisfaction with how master data management has been achieved within the core District systems.

3. 2005 Goal: Minimize duplicate data storage.

Current Assessment This strategy is focused on not having user data in more than one place/file. This is an ongoing and continuous process for the IT department to manage. User education on tools, storage and links is continually being performed to reduce the amount of duplication of data stored on the District's various servers and workstations. Employees expressed satisfaction with the level of integration and data duplication achieved within the core District systems.

4. 2005 Goal: Standardize all platforms on MS Windows operating systems.

Current Assessment: There is only one system that is not MS Windows based and that is the phone system. The phone system was updated in 2008, but utilizes a Unix based operating system. The phone system is scheduled to be replaced in the time horizon of this ITMP. All other systems are utilizing the MS Windows Operating System.

5. 2005 Goal: Standardize on MS SQL Server Database Platform

Current Assessment: At this point of the 13 information systems that utilize a database, 11 of them are using MS SQL Server database platform. The two remaining systems (Tokay Backflow and Vehicle Location) utilize a Microsoft database. The Backflow and Vehicle Location systems are scheduled to be updated in the timeframe of this ITMP.

6. 2005 Goal: Standardize Server Hardware on HP Proliant

Current Assessment: All District servers are now HP Proliant based systems.

7. 2005 Goal: Standardize on Dell workstations and laptops.

Current Assessment: All District workstations and laptops are now Dell based systems.

8. 2005 Goal: Standardize all computer communications on "TCP/IP over Ethernet".

Current Assessment: All data and voice networks utilize TCP/IP over Ethernet except the SCADA radio network. See SCADA master plan to see future communication enhancements.

9. 2005 Goal: Standardize Reporting Tools.

Current Assessment: With the open-architecture nature of the District's computing environment, many tools exist to report data contained in the District's various systems. To reduce the support burden, the District has standardized on two reporting platforms: 1) Microsoft Office Professional (MS Access and MS Excel); and, SAP Crystal Decisions. At this point the District utilizes only these two reporting tools for reports generated by end users.

Strengths, Weaknesses, Opportunities, Threats (SWOT)

Every IT environment has areas that are strong and areas that need improvement. During the development of this plan, we assessed these conditions at the District. This section will present the findings of the current strengths, weaknesses, opportunities and threats of the IT department.

During the course of creating this ITMP several key factors arose as being strengths of the current technology environment. Executive management especially cautioned that these strengths need to be maintained in any planning effort going forward.

Strengths:

Area	Key Factors
Technology	1. The current technology environment is very strong and robust 2. The use of GIS as the "window" into District data 3. Common SQL Databases 4. Information is available to all decision makers 5. Ability for appropriate end-users to see what is going on in the various systems 6. Detailed records of activity
People	1. Level of user sophistication is high 2. Staff is fully engaged in data ownership. Willing to change to make better 3. Utilization of work order system 4. Staff willing to learn new things 5. Staff familiarity with current systems
Reporting	1. Common reporting tools 2. Use of reporting tools
Board Support	1. Board has traditionally supported technology initiatives
Industry Leader	1. Other Districts/Agencies follow our lead

The challenge moving forward will be to keep these strengths while eliminating the weaknesses. What follows are the weaknesses that were identified. This ITMP will attempt to put into place strategies and objectives that will correct these weaknesses.

Weaknesses:

Area	Key Factors
Process	1. Streamline paper processes. Having two office locations creates timeliness issues with getting paper documents routed. 2. Related to 1, no automated routing of documents. 3. Overlap of functionality and data storage between systems. 4. Getting field staff and end-users to engage in the IT improvement processes. 5. Making sure the systems support the business operation and not the other way around.

Area	Key Factors
Data	1. Too many locations of data. Who owns the data? Where is it published? 2. Differing data definitions. 3. Don't know what data is fed into what reports for use by whom. We need consistent sources of information. 4. Data validation. Making sure data is accurate when entered into system.
Training	1. General training needed. 2. Data validation. End user discipline in properly entering data. 3. Inability to run all applications in house. (e.g., Hydraulic Modeling) 4. Labor accounting. Getting users to use the methods available to properly track labor hours.
CIS	1. Technical support from current CIS provider is not good. 2. Current CIS is not easily modified to fit District processes. (Timely manner)
Organizational	1. Too many operations centers.
Reporting	1. Multiple reporting requirements. External requirements, Regulatory reporting. Consistency in what is reported. 2. Currently no snapshot of operational Key Performance Indicators (KPI's). Need "dashboard" summary reports, graphs, charts customized for managers. 3. Report data timing. All reports going to board should be consistent and use the same data (date ranges).
Security	1. Keeping up with all the threats that can potentially threaten the IT environment.

In addition to weaknesses, staff identified several areas where additional opportunities for improvement exist. The following table lists the areas where improvement should be sought.

Opportunities:

Area	Key Factors
Warehouse Management	1. Inventory is currently spread out all over the yard and warehouse. 2. Issuing inventory is not very efficient. 3. Reconciling warehouse issues to Cityworks is difficult.
Automated Routine Reporting	1. Production report, operations report, financial reports, etc. should be as close as possible to push button reports.
Asset Condition Tracking and Reporting	1. Focus is needed on obtaining and recording the condition of all District assets. 2. Use of asset condition in prioritizing work activities.

In order to achieve the objectives laid out in this plan, risks of failure need to be identified and properly mitigated. The following threats could hamper achieving the stated objectives in this ITMP.

Threats:

Area	Key Factors
Budgetary Constraints	1. Budgetary limitations could curb the amount of dollars available to address IT weaknesses and pursue opportunities. 2. Competing priorities for budgetary dollars.
Board Approval	1. Motivation of the Board to continue supporting technology initiatives.
Adequate Staffing to Address Deficiencies	1. Ability of current staffing levels in IT to meet the challenges addressed. 2. Training of staff to stay current with technology. 3. Focus on established priorities.

The challenge for the IT department is to maintain the strengths, eliminate the weaknesses, seize the opportunities and avoid the threats. The intent of this ITMP is to address each of these objectives to improve the technology environment at the District.

Departmental Needs Assessment

As part of the development of this ITMP, each department was interviewed to obtain a list of systems, services, tools, devices or processes that were viewed as inefficient or not effective. A list of deficiencies was compiled. Each of the items identified will be addressed by this ITMP. Some items will be resolved or addressed during the normal course of system updates and maintenance. Others will be included as projects for the IT department to undertake, while the remainder will be requests to the District's system vendors for enhancements to their products. Any others will be brought before management to discuss the impacts on business processes.

Mission, Vision and Guiding Principles

The mission of the District is:

"To deliver a high quality, reliable supply of water and superior customer service at a reasonable price."

IT plays a vital role in the ability of the District to achieve its mission. This ITMP is focused on activities that will help the District achieve its stated mission.

District Goals

The District's mission is supported with five (5) main goal areas: Water Supply, Facilities and Operations, Customer Service, Finance and Leadership. While IT is involved in all 5 goal areas, it is most noticeable in goal numbers: 2 - Facilities and Operations, 3 - Customer Service and 4 - Finance. The following section highlights where IT plays a vital role assisting the District in achieving its stated goals.

2- Facilities and Operations:

Goal: "Plan, construct, operate and maintain the District water system facilities embracing sustainable practices to provide reliable delivery of high quality water."

Principles:

B. Monitor and improve the District's efficiencies in operating and maintaining system infrastructure.
C. Develop cost-effective strategies utilizing appropriate technology and other available resources to achieve optimization in delivery of water and enhance service.
D. Manage assets by implementing protective, preventive, and predictive maintenance programs on all district assets to extend their useful life and reduce service interruptions.
E. Provide information technology systems that will facilitate the availability of timely and accurate information and enable provision of superior service.
F. Safeguard the District's electronic data.

3- Customer Service:

Goal: "Assure superior customer service."

Principles:

D. Provide effective customer and community relates by communicating, educating and providing information on District operations, drinking water issues, water conservation, fiscal stability, environment stewardship, sustainability of water resources and physical system assets.
E. Solicit and respond to customer and community concerns and feedback.
F. Monitor and benchmark customer service parameters to ensure that District customers' needs are met.

4- Finance:

Goal: "Ensure effective and efficient management and public reporting of all District financial processes."

Principles:

B. Establish rates and connection fees that are fair, reflect the cost of service, encourage conservation, are simple to understand, and meet the District's revenue requirements, including bond covenants.
D. Pay authorized District financial obligations in a timely manner
G. Produce annual financial statements and supporting documentation to allow outside auditors to provide the District with unqualified audit opinions.
H. Produce and monitor and annual budget for necessary system operations, maintenance and improvements.

All of the strategies, goals and objectives of the IT department are in alignment with these District goals and principals. The remainder of this ITMP will address the specifics of how the IT department will continue to achieve the goals laid out in the District's Strategic Plan.

IT Department Mission

The purpose of IT is to enable the District to operate faster, better and more cost effectively. While IT continues to evolve, its purpose remains constant and is reflected in the IT department's mission statement, which is:

> **Securely maintain and provide timely, relevant and accurate information, when and where it is needed, to support sound business decisions that improve the cost, efficiency, quality and safety of the products and services the District delivers and uses.**

IT Department Vision

The underlying vision needed to accomplish the department's mission is:

> **Turn action into data, data into information, information into decisions and decisions into action.**

Guiding Principles

To achieve the goals and implement the strategies in this plan, 11 guiding principles are in place and focus on governance and excellence through teamwork, responsiveness, innovation, creativity, humility and quality. These principles require commitment not only from the District's IT staff, but from all District employees, including management and the Board.

Business Need: Drive IT initiatives according to business needs, goals, and objectives, and develop a sound business case before making or continuing any investments.

Enterprise View: View IT from the perspective of the entire organization and not just from an individual department perspective.

Cooperation: Foster interdepartmental cooperation in everything IT does.

Standardization: Acquire, manage, and use technology resources effectively and efficiently through standards developed by IT.

Open Systems: Acquire and use technology tools that allow for the easy sharing of data between systems and users.

Accessibility: District information should be available to authorized staff to view information at any time it is needed from any location.

Aggregation: Where feasible aggregate data to reduce duplication and employ information technology that is flexible and interoperable.

Accountability: The IT department is accountable to the Board for the safety and availability of information maintained.

Affordability: Recognition that District information management and storage practices must be affordable in the context of the District's overall budget.

Leverage: Devise strategies to leverage investments in the District's existing technologies.

Training: Train end-users in the skills needed to effectively use IT systems and the information they contain.

Strategies, Goals and Objectives

To make the delivery of IT as efficient and cost effective as possible, the IT department has developed several strategies that govern how IT is acquired and maintained in concert with the goals defined above.

Technology Strategies

Technology strategies involve developing structure around macro technological parameters and deciding how technology will be deployed in an organization. The goal is always to meet the needs of the organization, but prudence needs to be deployed so as to not lose focus on available resources (both people and financial) needed to implement and maintain technology. In that regard the following strategies will place some limits on the level of technologies that will be considered for use in the District. These strategies will focus on costs versus benefits and what the District is able to expend in resources to achieve its objectives.

Technology strategy one is foundational to all the District's needs for computing platforms. Having a single computing platform greatly reduces the cost to install and maintain the District's systems. Selecting a platform that has wide business acceptance and a large qualified and trained labor force is critical. Trying to maintain multiple computing platforms will require more highly skilled staff or possibly more staff as the skill level increases. The District has selected as its Computing Platform Microsoft Windows (Windows.) The goal is to have all information systems that are maintained by District staff on the Windows platform.

Technology Strategy 1: Utilize a Single Computing Platform

Goals:

- Minimize the cost to maintain and support IT systems.

Objectives:

- Implement a platform with industry acceptance and high levels of available trained professionals.
- Reduce the amount of specialized skills required by District IT professionals to maintain and support its IT resources.
- Utilize a platform that most users are familiar with and may have used in the past.
- Simplify access methods by providing users a single method to access District systems.
- Acquire systems that are both efficient and cost effective.

Benefits:

- Minimizes staff time required to support District IT systems, as knowledge of only one system is required.
- Simplifies staff turnover issues due to large numbers of trained professionals available in the market place.
- End users, typically, are familiar with District standardized systems, thus requiring less training of staff.

With the Windows platform being chosen as the District's standard platform, the hardware selected to run Windows will be a critical factor in determining the reliability of District systems. Having business proven manufacturers provide required hardware that supports Windows significantly improves the reliability of District systems. Keeping this equipment up to date with current technology will additionally contribute to

the reliability of District systems. PC based hardware has become more of a commodity over time. Very specialized and technical equipment is available to drive modern systems to higher and higher levels of performance at decreasing costs. Technology, historically, has continued to decrease in size and cost and increase in capability and performance. To help assure that the District's systems are reliable and perform optimally, a structured update cycle or "hardware refresh plan" is in place. The hardware components are structured in very specific ways and the rate of technological advancement is such that it is not practical to update hardware components after several years of use. Instead it is better and cheaper to replace the aging hardware completely. Thus, the strategy is to obtain sufficiently capable hardware to last approximately 5 years. After 5 years, a complete replacement of the hardware device is warranted. This allows the District to update not only the hardware device but the related device software at one time taking advantage of advancements in reliability and performance. Such a strategy greatly reduces the life cycle cost of the system as labor costs to work on systems can sometimes exceed the systems replacement value. Older systems can then be relegated to non-critical or backup roles thus extending their useful life beyond that which was planned while still providing value to the District.

Technology Strategy 2: Standardize Hardware and Refresh Devices to Maximize Reliability and Performance

Goals:

- Minimize costs to maintain and support computer systems.
- Increase the reliability and longevity of computer systems.
- Allocate devices to best use of operation.

Objectives:

- Procure new devices and rotate older devices on regular consistent cycles (i.e., 5 years).
- Procure hardware from vendors with sustained track records of designing and manufacturing reliable and long lasting equipment who have readily available repairs inventory and service.
- Standardize on key vendors/manufacturers to minimize the amount of specialized skills required by District IT professionals to maintain and support hardware.
- Utilize manufacture warranties and extended warranties on critical, non-redundant systems.
- Where appropriate maintain spare hardware devices.

Benefits:

- Minimize staff time required to support and maintain hardware as knowledge of only a few systems is required.
- Critical systems can stay the most current keeping them reliable with better performance.
- Ease of acquiring replacement parts and obtaining support.
- A longer life cycle is possible before retirement is necessary.

Previously one computer device could only handle one computing system. With the advent of virtual machines, a single computer device (server) can handle many computer systems. So what once required 4 or 5 machines to operate can now operate on one physical machine running 4 or 5 virtual servers. This greatly increases the utilization of hardware. Other benefits include real time performance optimization

based on computing resource needs, dynamic allocation of CPU and memory, complete system backups and faster system recovery times.

As more and more of the District's functions and processes become computerized and automated the sheer number of computing devices has greatly increased. These devices require space, power, cooling, monitoring and maintenance to remain reliable and perform optimally. In an effort to minimize the physical number of devices needed to operate and maintain the District systems, the migration to virtual machines has begun.

Technology Strategy 3: Virtualize Computing Resources

Goals:

- Minimize the cost to maintain and support computer systems.
- Increase the reliability and longevity of computer systems.
- Decrease recovery time and disaster response time.

Objectives:

- Utilize virtualization services to reduce the physical number of servers and equipment needed to support IT Infrastructure.
- Reduce space, power and environmental requirements for servers and equipment.
- Ease the process of backing up and restoring data and systems. Reduce the time required to back up and restore data and systems.
- Allow faster recovery time in event of system failure or disaster.

Benefits:

- Fewer physical devices to monitor and support.
- Reduced power costs
- Better utilization of equipment

Enterprise Data Management Strategies

The District's IT department has developed and implemented several data management strategies that will continue to drive IT decisions on designing, acquiring, implementing and maintaining IT systems and data.

The first Enterprise Data Management (EDM) Strategy is focused on utilizing one database management system for managing the District's core data. This strategy has been implemented to facilitate the ease and timeliness of sharing data between information systems and to simplify the maintenance of that data. Fewer skilled resources are required to support only one database management system. The District has selected Microsoft (MS) SQL Server as its standard database management platform. All core systems currently utilize MS SQL Server as their database platform. Going forward new systems will be sought that utilize this database platform and current ancillary systems that do not presently operate in MS SQL will be updated or replaced with support for MS SQL Server when implemented.

EDM Strategy 1: Utilize a Single Database Platform

Goals:

- Minimize the cost to maintain and support data management systems.
- Increase the ease of sharing data between systems.

Objectives:

- Implement a database with industry-wide acceptance and high levels of available trained professionals.
- Reduce the amount of specialized skills required by District IT professionals to maintain and support District data repositories.
- Utilize a database that is open and allows ease of access to its data.
- Use a database that has a large number of available applications written for it.
- Acquire a database that is cost effective.

Benefits:

- Minimize staff time required to support and maintain as knowledge of only one system is required.
- Efficiency of replacing staff due to large numbers of trained professionals available in the market place.
- Large pool of software applications available for purchase thereby reducing the price of applications due to competition.

EDM Strategy two focuses on maintaining data integrity within the many District systems. Customer name and address, meter number and location, meter reading and usage, CIP balance and status are some examples of data that may reside on many of the District's systems. However, which system's data supplies the answer for questions asked is an issue. If each of these data elements is separately maintained in each system, what happens if one system is updated and the others are not? The data becomes out of sync. IT staff, working closely with end-users, will develop a master data library. Definitions will identify the master data element and from which system they are maintained. The library will also identify all other systems where the data element is used. The master data library will be kept in a commonly accessible drive under the control of IT staff with system end-users responsible for notifying IT of any updates.

EDM Strategy 2: District Data Elements will be Maintained in one Host System and Replicated to Non-Host Systems.

Goals:

- To eliminate duplicate data maintenance. Data elements will be maintained in one host system.
- To create consistency in data reporting by allowing only one authoritative source for data.
- To have accurate data available in all systems requiring the common data element.

Objectives:

- Identify each data elements system of record.
- Link other systems needing the data element to the system of record.
- Educate users on data source locations. This will accomplished through the Data Library.
- Automate replication of data elements where feasible.

- IT will maintain data security, storage and availability.

Benefits:

- Minimize staff time required to maintain data elements.
- Eliminate confusion regarding authoritative sources for District data.
- Consistency in reporting data.

EDM Strategy three involves the District-wide concept of user data ownership. End- users are primarily responsible for the accuracy of the data. With this in mind additional processes need to be put into place to assist end-users in reviewing and ensuring data accuracy.

EDM Strategy 3: Users of Data will be Responsible for Data Quality

Goals:

- To increase the accuracy and integrity of District data.

Objectives:

- Users will take ownership of the data they manage.
- Users will be responsible for data accuracy.

Benefits:

- Reduce errors found in District data.
- Increase staff confidence in data elements.

Enterprise Application Strategies

The following Enterprise Application (EA) strategies are directed towards how the District will design, select, implement and support its business applications. The three strategies that follow are being implemented to allow the IT department to best meet the needs of the District in this area.

The first EA Strategy is to utilize "Best-of-Breed" software applications. "Best-of-Breed" applications allow the District to select the optimal software to meet the specific business process needs. Business applications are grouped by major process areas for functions such as Enterprise Resource Planning (ERP) for finance and accounting, Customer Information System (CIS) for customer account management, billing and cash receipts, Geographic Information System (GIS) for asset tracking and management, Computerized Maintenance Management System (CMMS) for scheduling, tracking and reporting of maintenance activities, Electronic Document Management System (EDMS) for tracking and managing documents and Supervisory Control And Data Acquisition (SCADA) for controlling and managing production and distribution facilities. These 6 application areas make up the District's "Core" business applications. All other applications, typically, support one or more of these core applications.

EA Strategy 1: Utilize "Best-Of-Breed" Software Applications

Goals:

- Acquire the optimal software available to meet the needs of the business requirement. The District will typically not seek a single "Complete" package unless it clearly meets all District requirements and is affordable. Systems can be integrated at the user interface or data level.
- Seek software that is flexible and will fit the way the District desires to configure and operate.
- Look for software that is open and can integrate with other systems.
- Prefer software that is easy to maintain and support.

Objectives:

- Obtain the optimal software application available to meet the needs of the specific business process(es) being automated.
- Procure software compatible with the District's Technology Strategies.
- Purchase software that advances the District's current capabilities.
- Identify integration points with other District applications/processes.
- Minimize amount of customizations.

Benefits:

- A larger number of requirements can be met by not having to settle for a single system where functionality may be weak in a particular area.
- Recognition that it is often more efficient and cost effective to replace pieces without having to replace the whole.
- Not become reliant on one vendor.
- Ease of upgrades.

The second EA Strategy is directed towards enabling the District's GIS to become the primary "window" into the District's data. All of the District's data has a spatial data component. Assets are distributed across the District's service area, customers are distributed across the District's service area and even Employees are distributed across the District's service area. The GIS allows us to see at any given time where the District's assets, customers and employees are located. The ability to analyze data that has both spatial and temporal elements is very powerful. For this reason, GIS will be integrated with all other District systems in an appropriate and meaningful way to improve the ability to turn data into action.

EA Strategy 2: Utilize Geographic Information System as Backbone Information Access Platform

Goals:

- GIS will be the primary system to visualize, analyze and report infrastructure asset and customer data.
- GIS will be available to all information users.
- The District will be able to leverage all GIS tools and resources.

Objectives:

- ESRI ArcGIS will be the District's GIS platform.
- The District will maintain in-house expertise to enhance, develop, manage and support the GIS.

- All enterprise applications will integrate with GIS. Other applications should be able to integrate with GIS.

Benefits:

- Spatial analysis of information is more informative.
- Spatial analysis can indicate systemic problems in the Districts water infrastructure.
- Relating all District asset and customer data in a common interface generates considerable benefit to District staff.
- Data is primarily visual: A picture is worth a thousand words.

The third EA Strategy is focused on easing the process of accessing and working with the transactional data of the District. The District's prior strategies had concentrated on minimizing the interfaces employees had to use to access District information. Presently, the 6 core applications can be viewed through 4 separate interfaces. Add to this the approximate twenty other applications and there exists a large list of interfaces that users need to familiarize themselves with in order to accomplish their daily tasks. While the previous strategy dealt with viewing data, the proposed strategy deals with entry and processing of primary data elements and transactions. With the increase in user sophistication, more users are involved in many processes and need to access many systems to accomplish their assigned duties. This strategy will seek to reduce the interfaces that users must familiarize themselves with to complete their duties.

EA Strategy 3: Utilize Browser – Based Client User Interfaces with Service Oriented Architectures

Goals:

- To enable a single configurable interface specific to each user's roles and responsibilities.
- Reduce efforts to keep client devices up-to-date with software applications.
- Integrate business process functions across multiple applications into one interface.

Objectives:

- Reduce the interfaces that users must access.
- Procure new applications that are "Brower Based" and utilize service oriented architectures.
- In-house ability to enhance user interface to achieve greater efficiency of data retrieval.
- Increase level of application and process integration of business systems.

Benefits:

- Users have a single interface to District systems.
- Greater levels of process integration reduce time to create and find information.
- Less time required to keep client devices "up to date".

Enterprise Process Improvement Strategies

One of the goals of the District is "Develop cost-effective strategies utilizing appropriate technology and other available resources to achieve optimization in delivery of water and enhance service." This is the core of process optimization - to improve the efficiency of how the District delivers water and services to its customers. During our assessment it was observed that there is a strong sense of ownership and pride in staff for being efficient. District staff is very interested in "doing it better".

The District's first Enterprise Process Improvement (EPI) Strategy is focused on building appropriate teams to review and recommend improvements to business processes. These teams will work with other teams, process owners, and users to recommend process improvements that leverage one or more of the District's information systems.

EPI Strategy 1: Engage Appropriate Cross-Functional Teams in Business Process Optimization

Goals:

- Increase the effectiveness of the District's business processes.
- Reduce the amount of manual processes that cause inefficiency.

Objectives:

- Regularly meet to review business processes.
- Review business process with process owners.
- Develop processes with process users.
- Automate as much as possible.
- Simplify processes while still meeting business objectives.

Benefits:

- Process "buy-in" as process owners and users are engaged in process improvement.
- Reduce the staff required to perform process.

The second EPI Strategy focuses on pulling all of the other strategies together. To really leverage all of the District's technological resources, there is a need to integrate the District's business processes and application processes. This is a mindset that looks at processes from a District-wide (as opposed to a departmental) perspective and optimizes the process utilizing current or new technology. Many processes involve multiple departments and will utilize multiple applications. The goal is to optimize the flow of data in the process to enable quicker process execution time and require less data input and manipulation by the process users. To optimize the ability to integrate business processes and application processes all strategies discussed above need to be in place. So at a macro level all IT efforts are focused on procuring or developing technology that can be integrated together to allow the District to optimize all its business processes.

EPI Strategy 2: Integrate Business Processes and Application Processes

Goals:

- Increase the effectiveness of the District's Information Systems.
- Improve the efficiency of data flow throughout the organization.

Objectives:

- Automate the flow of data throughout the process across disparate systems.
- Integrate systems at the data or user interface layer.
- To the extent possible seek systems that already have integration or automated interfaces.
- Keep integrations simple.
- To the extent possible, leverage existing District technologies.

Benefits:

- Faster response time to information requests.
- More accurate information for decision making.
- Improved operational efficiency, i.e., getting more done in the same number of hours.

IT Program Elements

Successful implementation of the ITMP requires that the plan's goals and strategies are turned into real operational processes. The ITMP incorporates eight program elements, or business focus areas, that span the entire organization. Each of the following program elements will be governed by one or more of the previous 11 strategies.

Each program is aligned with the ITMP's goals and strategies. Each project was developed from the workshops conducted with departmental staff. The sequencing, staging and budgeting requirements for each project will be detailed in the section "Action Plan and Proposed Budget".

IT Program: Resources, Standards and Governance

The purpose of this program is to establish the foundation for utilization of IT resources, standards and governance practices. Each of the defined projects within this plan will adhere to the standards and governance practices established.

- **IT Infrastructure Standards and Governance** – With industry best practices as a guideline, establish standards for IT data, systems and practices.
- **IT Resources** – To accomplish the projects within the plan additional IT resources will be required. The current 1.5 FTE staffing will be insufficient to complete the plan. Refer to staffing plan at the end of this section

IT Program: Customer Service and Billing Management

Customer service projects are focused on improving the District's ability to service the needs of its customers. IT projects in this category are listed below.

- **Customer Service and Billing System Replacement** – Replace the current CIS customer service and billing system.
- **Call Center System Replacement** – Replace the current customer service call center environment.
- **Customer Portal Fixed Network Meter Reads** – Develop pages to display fixed network reads and perform usage analysis on new Customer Service Portal.
- **SSWD Application for Droid/iPhone** – Develop or procure an application for use on smart phones to allow customers to receive and pay bills, get District notifications, create service orders and otherwise interact with the District.
- **Update X,Y Coordinates from GIS to CIS** – Locate each service connection in CIS with GPS coordinates of the service point in GIS.
- **Track Rebates and Rebate Programs** – Develop or procure a tool to track customer rebates and rebate programs.

IT Program: Financial Management and Business Intelligence

The projects within this program support the District's financial management and business performance management activities. These projects implement or enhance District enterprise business intelligence systems, that provide the applications needed to support decision making processes including applications for planning, budgeting, forecasting, analyzing and reporting. IT projects in this category are listed below.

- **Use Tax Tracking** – Determine best approach to record, track and pay use tax for out of state and other non-taxed purchases.
- **Financial Information System Replacement** – Two phases to this project. First do a Request For Information (RFI) to determine if any applications can meet current deficiencies in contract management, CIP costing, budgeting and inventory management. Results of RFI will direct next phase to enhance current application or procure a new financial information system.
- **Inventory Tracking Pilot** – Develop pilot program to investigate methods to better record and track inventory movements to and from warehouse.
- **Tracking Lots for MTUs/Meters** – Determine best approach for managing lot data (serial numbers) for MTU and meter inventory items.
- **Tracking Allotments for Inventory Items** – Determine best approach for tracking allotments of inventory items within CMMS and the ERP System.
- **Enterprise Management Reporting** – Streamline the reporting processes for all primary District reports going to the Board, regulatory agencies and other stakeholders.
- **Management Dashboard** – Develop pilot to research means and tools to present discrete management data to users in a "Dashboard" style interface.

IT Program: IT Infrastructure

IT infrastructure projects provide the foundation for enabling, protecting and securing District information and for all District computing initiatives. IT projects in this category are listed below.

- **Internet Access at Antelope** – Connect Antelope facility to the rest of SSWD network.
- **Smart Phones and Tablets** – Determine best approach to integrating smart phones and tablets in the work processes at the District.
- **Board Room Technology Update** – Update recording, sound amplifiers, projector and other technology in the board room.
- **Recurring Hardware Replacements** – Refer to "Hardware Replacement Schedule" for details of this program.
- **Web Site Update** – update www.sswd.org web site with new technology tools and functions.

IT Program: Enterprise Asset Management

Enterprise asset management projects provide support for the management of all District facilities and equipment, including support for efforts associated with upgrade, repair and replacement of production (vertical), distribution (horizontal), structure and equipment assets. IT projects in this category are listed below.

- **GPS Locate Assets** – Procure hardware, software and services and develop specific projects to record accurate location of District assets. This will be a multi-phased project over a several year period.
- **Valve Isolation (Geometric Network) Enhancement** – Update the GIS features and objects to enable the geometric network for performing network analysis on the distribution system.
- **Develop Processes and Routines to Track Asset Condition** – In cooperation with other District Asset Management Plans develop the means to capture, track and report on asset condition.
- **Wachs Vitals Data Storage** - Develop repository in GIS/CMMS and related processes to retrieve Vitals data from Wachs' system and store in GIS.
- **ArcGIS Server Update** – Migration of current GIS environment from desktop presentation tools to the new ESRI server (browser) based tools.
- **CMMS Server Migration** - Migrate current CMMS Desktop environment to Server.
- **Vehicle Location System Update** - Update Sierra Wireless AVL system that has been discontinued. Need new AVL solution to address obsolete current system.
- **Production Asset Data Model** - Redesign production GIS objects to better reflect how Production desires to manage their assets.
- **Automate Vehicle Point System** - Develop tool to track and report on vehicle points retrieving data from various systems to track the point values.
- **SCADA/KP Security Monitoring** - Setup SCADA or KP to monitor some of the Districts security devices. (Door Alarms, yard beams, IT Air Conditioner, etc.)

IT Program: Operations Management

This program is directed at applications and processes used to operate the water system, to support the efficient use of water by customers and to manage operations and maintenance staff. IT projects in this category are listed below.

- **SCADA System Update/Replacement** – Procure Hardware, Software and Services and develop specific plan to either update the current "Wonderware" environment or replace with a new Human Machine Interface (HMI).
- **Production Data Collection (PDC) Enhancements** - Update reports and start data validation scripting enhancements.
- **Labor Recording** - Develop tool to allow field staff to log time during the day per work order and employee. Integrate with other District systems needing labor details.
- **Board Activity Reports** - Enhance/Modify board activity reports. Review and modify existing reports.
- **Water Conservation Survey Database Enhancements** – Develop/procure tool to replace current excel file based system with on-line web system for WC surveys.
- **Water Flushing Model Enhancement** - Procure water flushing add-on to water modeling (Innovyze) software. Get commitment from department(s) to keep staff trained on the use of the model.

IT Program: Maintenance Management

Maintenance management projects are focused on enhancing and extending the value of the District's existing CMMS application for both production and distribution facilities. IT projects in this category are listed below.

- **Preventive Maintenance Enhancements** – Enhance current CMMS system to incorporate comprehensive creating and scheduling of all preventive maintenance activities according to District PM plans.
- **Online Backflow Test Results** - Develop tool to allow backflow testers to log test results on-line.
- **Automate Vehicle Inspection, Tracking & Notification** - Develop/Procure tool to allow on-line entry and reporting of vehicle inspection data.
- **Auto Creating Service Orders** - Develop automation to allow users to have the SSOI program automatically create SO from a UDF on CW requests.
- **On-Demand Routing of Work Orders & Service Requests** – Develop or procure tool to allow users to on-demand route based on WO and SR selected

IT Program: Document Management

The document management projects are focused on enhancing and extending the value of the existing OnBase electronic document management system. IT projects in this category are listed below.

- **Mobile OnBase Access** - Perform Pilot project to determine how mobile OnBase access can be utilized by various staff. USA to start.

IT Staffing Resources:

All of the technology at the District is managed by 1.5 FTE staffing with supplemental support provided by external consultants. There is 1.0 FTE IT manager and a 0.5 FTE IT support staff employed by the District. The outside consultants provide specialized expertise that covers most of the District's systems. The 1.5 FTE internal staff are responsible for all end-user support (District full-time equivalent staff size of 65 employees), server, workstation and laptop repairs, upgrades and replacements, all system security issues, all application system updates and fixes, new technology planning and acquisition, department management and vendor support.

Currently, a significant amount of the IT manager's time is devoted to the varied and multiple support calls that he receives on any given day from District staff. The ability of the IT manager to dedicate focused time on major IT projects is significantly limited as he responds to the numerous end-user requests. The GIS technician, the 0.5 FTE, is able to assist in certain, limited support and maintenance activities and some system upgrade activities. However, during times of major system updates and for implementation of the IT projects outlined above, there are insufficient IT staff resources available to accomplish these necessary tasks.

To complete the vision laid out in this ITMP, additional internal IT resources are required. Specifically, another 0.5 FTE is needed in IT to address end user needs making the IT Manager available for the projects outlined in this ITMP. Further, to fully support the planned enhancement of the GIS environment

envisioned in this ITMP, additional GIS skills and support are necessary. An increase in the GIS department from 2.5 to 3.0 FTEs is necessary to accomplish the GIS projects outlined above.

Action Plan and Proposed Budgets

As mentioned at the beginning of this ITMP, previous IT planning has been performed and the outcomes of those plans have been enacted. This ITMP is the current District initiative to implement long range plans for IT resources. Thus, most of this ITMP's 2013 and some of the 2014 projects are in the process of implementation or planning for these projects has begun. Due to the transition to managing IT investments through this ITMP, 2013 and 2014 will have slightly different action plans compared to 2015 thru 2018.

2013-2014 Course of Action

A number of the proposed ITMP projects have already been planned and included in the District's Operating Capital budget. The remaining expenditures for 2013 will be spent in completing these already planned activities as well as planning new activities identified in this ITMP for 2013.

2014 is a mix of already defined projects and new projects identified in this ITMP. Planned projects for 2014, however, will be reprioritized in light of this proposed ITMP. Specific 2014 ITMP projects will be identified as part of the 2014 budget process and will be presented to the Board via this standard District approval process. Once this ITMP is approved, then the budgets for 2015 – 2018 will be prepared and reference this ITMP for each respective year.

2015-2018 Course of Action

As budgeting commences for years 2015 thru 2018, each year's projects will be re-prioritized based on accomplishments of the previous year. In this way the ITMP can adjust to changing priorities that may drive the scheduling of projects in a different order than that which is defined in this ITMP. That year's projects will then be included in the year's OCB budget plan and presented to the Board for approval with reference to this ITMP.

2013-2018 Proposed Budgets

Implementing the projects identified in this ITMP carries a cost. An estimated budget has been developed for each major program area and placed in the District's 2013-2018 OCB budget. The estimated budget, which totals $2,258,900 over six years, was developed by Sophos Solutions consultants familiar with the District's existing information technology baseline, the information technology goals of the District, and the cost of similar-sized efforts implemented by other utilities.

Typical water utility IT capital project budgets range from 6 percent to 10 percent of the utility's overall capital spending. Utilities spending on the high end of this range are generally playing catch-up after periods of low IT investment. Utilities spending on the low side of the range are generally sustaining their IT investments. Given that the District has made a number of sound investments in IT over the past several years, has successes to show for those investments, and has made IT an important element in the design of the District, the ITMP budget estimate is based on a conservative figure of 2.1 percent of the 2013-2018 OCB/CIP budgets.

This ITMP advocates a gradual, information-driven approach to expand and extend IT investments, using actual information obtained and leveraging existing investments to the fullest before making new expenditures. This approach is also reflected in the estimated budget. The following table summarizes the IT budget by year over the six-year span contemplated by this ITMP and shows the annual expense as a percentage of the total six-year budget.

Program	2013 Planned	2014 Planned	2015 Planned	2016 Planned	2017 Planned	2018 Planned	2013-2018 Total
IT Master Plan Budgets	$410,400	$397,500	$554,500	$484,500	$188,500	$223,500	$2,258,900
Percentage of Total	18%	18%	25%	21%	8%	10%	100%

Please note that establishing an accurate budget for the ITMP at this time is challenging for a number of reasons. The most significant is determining to what degree the District's own personnel can provide expertise in a variety of roles versus the amount of professional consulting or staff augmentation required to either coach those functions or perform specialized tasks. Some critical roles in the IT department require skills not currently present in the District (see the next section, Organizational Structure). A number of IT program areas require ownership and new skills necessary to develop and sustain them. And a significant amount of District asset information must be collected and verified by field staff—including the geospatial coordinates that require specialized tools and skills.

Organizational Structure

The IT department provides the foundation, with a few changes, to fulfill the basic IT support needs of the District and deliver the benefits identified in this ITMP. The following describes the general functions of the IT department and, where needed, identifies necessary organizational changes.

Desktop Support

Desktop Support is responsible for meeting the day-to-day user needs for IT services across the District. Currently, IT staff repair, maintain, and manage user–facing elements of IT, including workstations and laptops (both in the office and in field vehicles), user accounts and permissions, productivity software support, printers and copiers. This function is currently performed by both the IT Manager and the 0.5 FTE support staff. Approximately 30% of this workload is currently performed by the IT Manager with 70% being performed by the 0.5 FTE support staff. However, current staff resources are insufficient to properly address this function as needed. The process of combing GIS and IT staff into a single department may yield sufficient resources to address this function. If not, it may be necessary to either add consulting dollars to the annual budget and/or add a 0.5 FTE staff member. Regardless, this will help free up the IT Manager to focus on more strategic IT initiatives.

Infrastructure Support

Infrastructure support's responsibilities are to support the District's IT computing and network systems. This includes the management of servers, storage area networks, backup and recovery of data, local and wide area networks, network security, video surveillance and the telephone system. This function is currently performed by both the IT Manager and the 0.5 FTE support staff. Approximately 80% of this workload is currently performed by the IT Manager with 20% being performed by the 0.5 FTE support staff. However, current staff resources are insufficient to properly address this function as is necessary. The process of combing GIS and IT staff into a single department may yield sufficient resources to properly address this function. If not, it may be necessary to either add consulting dollars to the annual budget and/or add a 0.5 FTE staff member. Regardless, this will help free up the IT Manager to focus on more strategic IT initiatives.

Enterprise Application, Database Support and Integration

The District's approach to support Enterprise Applications is to engage both technical and functional staff resources. IT is responsible for the management and safety of the computing resources and data for each application while the setup, function, processes and outputs are managed by the functional system owner. The system owner is the assigned staff responsible for the operation of the application. This allows for the functional aspects of the system to be controlled and managed by the person/department responsible for the business processes automated by the application. Each District core system has a system owner. The following table summarizes the system owners by application

Enterprise Application	System Owner	Department
Customer Information System (CIS)	Admin Services Manager	Admin Services
Financial Information System (FIS)	Assistant Controller	Finance
Computerized Maintenance Management System (CMMS)	Operations Coordinator	Operations
Geographic Information System (GIS)	GIS Coordinator	Engineering
Electronic Document Management System (EDMS)	Admin Services Manager	Admin Services
Automated Meter Reading System (AMR)	Superintendent Field Services	Field Services
Electronic Mail System (email)	IT Manager	IT

With this approach both the system owner and the IT department work in concert to support the Enterprise Application.

The GIS will require additional skills to continue to enhance and improve its effectiveness in the District. Most District staff utilizes GIS in some manner. As part of this ITMP, it is recommended that combining GIS and IT staff into a single department may yield sufficient resources to properly address the GIS function. If not, it may be necessary to either add consulting dollars to the annual budget and/or add a 0.5 FTE staff member.

Database support for all enterprise applications is provided by a combination of District IT staff, outside consultants and the application vendor. Specialized skills and training are required to operate and manage the District's database environments. This approach allows the District to provide much of its own support while having the availability of specialized consultants to manage the most complex issues. This allows the District to avoid having to hire a full-time database administrator to manage the 6+ enterprise database environments.

One of the main goals of the IT department is to have all of the enterprise applications integrated where appropriate and cost effective. Integration saves considerable time by moving data between applications automatically instead of through user input. The "Best-of-Breed" application strategy only works well when integration of dissimilar applications occurs. At this time all of the core enterprise applications and several departmental applications benefit from such integration. Integration services are provided by outside consultants with specialized database and programming skills. These integrations have been developed with standard tools that the District already has available and is supported by a large number of trained Microsoft professionals. The District does not intend to develop integrations using uncommon tools. The District maintains complete documentation for each the integrations and IT is significantly involved in the development, deployment and management of each interface. The use of outside consultants for integration allows the District to avoid hiring an expensive application programmer to develop and maintain these integrations.

Other Concerns

At this time there are no planned or anticipated retirements of positions relating to the support of core IT systems and applications. As such, succession planning has not been addressed in this ITMP.

Appendix-A:

Project Name	Description/Scope	Department	Budgeted Cost	Year	2013	2014	2015	2016	2017	2018
Call Center	Replace 3-Com call center hardware and software, including services.	Cust Serv	$25,000	2016	0	0	0	25,000	0	0
New CIS	Replace Cogsdale CSM CIS with more current system.	Cust Serv	$350,000	2013	350,000	0	0	0	0	0
Fixed network Reads Available on Web	Implement tools to allow Customers to view daily/hourly consumption from Customer Portal	Cust Serv	$10,000	2015	0	0	10,000	0	0	0
SSWD App for Droid/iPhone	Develop an application for constituents to interact with the district via their smart phone.	Cust Serv	$40,000	2015	0	0	10,000	30,000	0	0
Update X,Y coordinates from GIS to CIS	Locate each LID in CIS with the GPS coordinates of the service point for that LID.	Cust Serv	$0	2013	0	0	0	0	0	0
Upgrade Backflow Program/Online Backflow Test Results	Develop tool to allow backflow testers to log test results on-line	Distribution	$25,000	2014	0	25,000	0	0	0	0
Automate Vehicle Inspection Tracking/Notifying	Develop/Procure tool to allow on-line entry and reporting of vehicle inspection data.	Facilities	$10,000	2013	10,000	0	0	0	0	0
Automate Vehicle Point System	Develop tool to track and report on vehicle points retrieving data from various systems to track the point values.	Facilities	$10,000	2014	0	10,000	0	0	0	0
RainBird Maxicom	What to do with Garden and the irrigation system. Need input from Management	Facilities	$10,000	2014	0	10,000	0	0	0	0
SCADA/KP Security Monitoring	Setup SCADA or KP to monitor some of the Districts security devices. (Door Alarms, yard beams, etc)	Facilities		2014	0	0	0	0	0	0
New/Update Financial Accounting System	Replace Microsoft Great Plains with newer more feature rich financial application.	Finance	$510,000	Multi	0	10,000	300,000	200,000	0	0
Use Tax Tracking	Determine if MGP can track use tax by invoice for reporting and remitting to State.	Finance	$0	2013	0	0	0	0	0	0
Inventory Scanning Pilot	Develop Pilot program to test card based scanning system for warehouse.	Finance	$20,000	2014	0	20,000	0	0	0	0
Tracking Lots for MTU's and Meters	Determine if MGP can track lots (by serial number) for MTU's and Meters.	Finance	$0	2013	0	0	0	0	0	0
Tracking Allotments for Reserved Inventory Items	Determine if MGP can track allotments coming from other systems	Finance	$0	2013	0	0	0	0	0	0
Web Site Update	Update Web-Site	General	$15,000	2018	0	0	0	0	0	15,000

Appendix-A:

Board Room Technology	Update recording, sound amplifers, projectors, etc.	General	$10,000	2018	0	0	0	0	0	10,000
Digital Board Packets	Develop digital board packets and provide devices to utilize during board meetings.	General	$0	2014	0	0	0	0	0	0
Smart Phones/Tablets	Determine appropriate staff to utilize smart phones and/or tablets. Need to resolve security and policy enforcement rules	General	$4,000	2013	4,000	0	0	0	0	0
Internet Access At Antelope	Get Antelope setup so that the facility can connect to the rest of the SSWD network	General	$3,000	2013	3,000	0	0	0	0	0
Valve Isolation (Geometric Network)	Get the GIS set up to enable value isolation tracing. Need to implement the Geometric Network	GIS	$4,000	2013	4,000	0	0	0	0	0
Storing Wachs Vitals Data	Develop respository in GIS and related processes to retrieve Vitals data from Wach's system and store in GIS	GIS	$3,000	2014	0	3,000	0	0	0	0
GPS Locate Assets	Procure Hardware, Software and Services and develop specific projects to record accurate location of District Assets.	GIS	$450,000	multi	0	50,000	100,000	100,000	100,000	100,000
Electronic Employment Applications	Develop/Procure tool to track employment applications on SSWD web site. Hosted solution or On-Base workflow could be used.	HR	$0	2014	0	0	0	0	0	0
Vehicle Location Update	Update Sierra Wireless AVL system that has been discontinued. Need new AVL solution to address obsolete system	IT	$25,000	2014	0	25,000	0	0	0	0
ESRI ArcGIS Server Implementation	Install and familiarize GIS staff with GIS Server and required tools	IT/GIS	$15,000	2014	0	15,000	0	0	0	0
Cityworks Server Migration	Migrate current Cityworks Desktop environment to Server	IT/Operations	$20,000	2014	0	20,000	0	0	0	0
Labor Recording	Develop tool to allow field staff to log time during the day per work order and employee. (Method to record all 8 hours of the day)	Operations	$10,000	2014	0	10,000	0	0	0	0
On-Demand Routing of WO's and SR's.	Develop/Procure too to allow users to on-demand route based on WO and SR selected	Operations	$10,000	2015	0	0	10,000	0	0	0
Mobile on-Base access and testing	Perform Pilot project to determine how mobile On-base access can be utilized by various staff. USA to start	Operations	$0	2013	0	0	0	0	0	0

Appendix-A:

Water Flushing Model	Procure water flushing add-on to water modeling (Innovize) software. Get commitment from some department to keep staff trained on the use of the model	Operations	$10,000	2014	0	10,000	0	0	0	0
PDC Enahncements	Update reports and start data validation scripts	Production	$75,000	Multi	0	15,000	15,000	15,000	30,000	0
Production GIS Object updates	Redesign production GIS objects to better reflect how Production wants to track their assets	Production	$0	2013	0	0	0	0	0	0
SCADA Hardware Replacement	Replace SCADA hardware environment. This decision is dependant on the SCADA system decision	Production	$0	2013	0	0	0	0	0	0
Water Conservation Management	Develop/Procure tool to track customer rebates and rebate programs	WtrCons	$70,000	2014	0	70,000	0	0	0	0
Water Conservation Survey Database	Develop tool to replace current excel file based system with on-line web system for WC surveys.	WtrCons	$10,000	2014	0	10,000	0	0	0	0
Auto Creating Service Orders (CSM) from Service Requests (CW)	Develop automation to allow users to have the SSOI program automatically create SO from a UDF on CW requests.	WtrCons	$0	2013	0	0	0	0	0	0
Board Activity Reports	Enhance/Modify board activity reports. Review and modify existing reports.		$6,000	2013	6,000	0	0	0	0	0
Reporting	Develop list of new or enhanced reports		$20,000	2014	0	20,000	0	0	0	0
Server Replacement	specific annual replacements		$179,000	Multi	18,000	42,000	32,000	0	31,000	56,000
Workstation Replacements			$62,500	Multi		12,500	12,500	12,500	12,500	12,500
Laptop Replacements			$90,400	Multi	15,400	15,000	15,000	15,000	15,000	15,000
Device Replacement			$35,000	Multi	0	5,000	0	15,000	0	15,000
MOPIERS			$80,000	Multi			50,000	30,000		
HP Plotter			$25,000	2016				25,000		
KIP Plotter, Scanner, Copier			$17,000	2016				17,000		
			$2,258,900		$410,400	$397,500	$554,500	$484,500	$188,500	$223,500
					18%	18%	25%	21%	8%	10%

Return to Agenda

SACRAMENTO SUBURBAN WATER DISTRICT

Facility & Operations Committee

Agenda Item: 5

Date: May 29, 2014

Subject: Arden Oaks Main Replacement Project – Paving

Staff Contact: John E. Valdes, Engineering Manager
Dave Jones, Associate Engineer

Recommended Committee Action:
Receive report on status of paving work for the Arden Oaks Main Replacement Project and authorize staff to bring this item to the full Board with a request to authorize the General Manager to execute a Paving Partnership Agreement with the County of Sacramento (County) for a not to exceed District contribution amount of $830,000.

Discussion:
The Arden Oaks Water Main Replacement Project (Project) is a main replacement project consisting of approximately 41,000 feet of new main lines, over 350 new meter retrofits, and over 70 fire hydrant installations. The Project is split into two phases. The plans for each phase were reviewed separately by the County and each phase has a separate Encroachment Permit. The Project is bounded by Maple Glenn Road on the north, Watt Avenue on the west, Arden Way on the south and Eastern Avenue on the east. See the attached location map, attached as Exhibit 1.

The project is well underway, on schedule and within budget. Before construction even started, staff began a comprehensive public outreach effort to keep the neighborhood informed. This outreach included letters to the customers, as well as staff, attending three separate Arden Oaks Neighborhood Association meetings.

Over the past several weeks an issue has arisen concerning the final paving prescribed for the project. As required by the Encroachment Permits issued by the County, the District chose to slurry seal the entire lane in which the pipeline trench was excavated. The County then offered to partner with the District to provide funds to slurry the adjoining lane to create a full width curb to curb slurry seal.

The Project assumed the District's contractor would perform the final paving and District staff bid the project to include the paving tasks necessary to comply with the Encroachment Permits. Since the Project is comprised of two phases, each phase has its' own bid schedule. The bid items associated with the paving tasks for each phase were identified as "Pavement Restoration,

Minor Roads, 4-inch," and "Type 2 Slurry Seal." The dollars available for the paving tasks under the requirements of the District's Encroachment Permits is $795,000. The District is also responsible for other hard costs during paving operations such as County Inspection, District Inspection, and Construction Management. Based on previous experience with past main replacement projects these costs have been estimated to be approximately $35,000. Therefore, the total amount available from the Project's Phase 1 and 2 paving budgets is approximately $830,000. This is the amount that can be contributed to a full paving overlay project. In addition, this will relieve the District of any liability regarding the final paving.

The District has entered into paving partnership agreements with the County on two previous main replacement projects (North Highlands Phase 2 and North Country Club Estates). In each case, the District contributed the amount of money that would have been used to provide for final paving in accordance with the Encroachment Permit and the County provided additional funds to provide for a more expensive solution, a full width paving overlay. A similar approach is now being discussed for the subject Project.

The Arden Oaks Neighborhood Association formed a Paving Committee to address their concerns regarding the final paving. The Committee contacted County Supervisor Susan Peters' office informing her of their concerns about the final paving. They have formulated arguments that the final paving solution should be a full width asphalt overlay as opposed to a slurry seal. On Thursday, May 29th, the Paving Committee, County Supervisor Susan Peters, along with her staff, and District staff conducted a field meeting in the Arden Oaks Neighborhood Association to discuss the Committee's concerns and obtain input from the County regarding their request to overlay the roadways throughout the subject neighborhood. Upon completion of the field meeting, the County verbally agreed to pave the roadways. However, the paving would not occur until 2015 due to the County having to locate/re-allocate funding for this project.

The County informed District staff that they would not have a draft Paving Partnership Agreement until August 2014, at the earliest. Therefore, staff is recommending the Board authorize the General Manager to execute a Paving Partnership Agreement with the County for a not to exceed District contribution amount of $830,000.

Fiscal Impact:

There is no additional financial impact to the District due to the amount that would have been spent on final paving will remain the same.

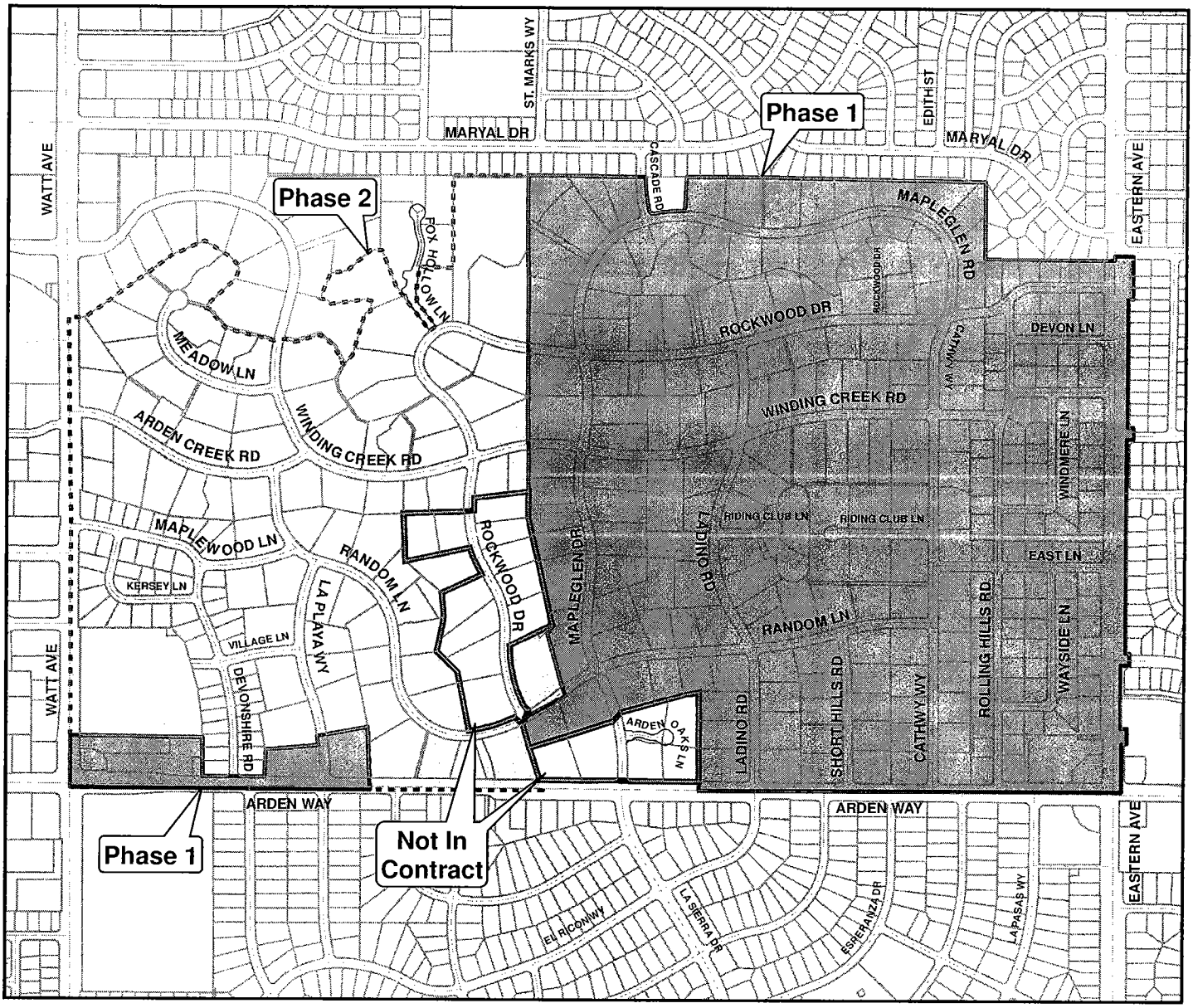
Strategic Plan Alignment:

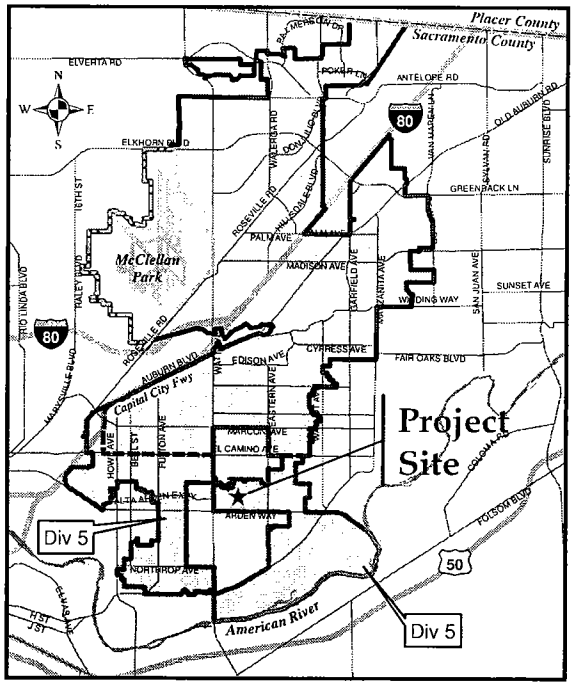
Facilities and Operations – 2.B. Monitor and improve the District's efficiencies in operating and maintaining system infrastructure.

Facilities and Operations – 2.D. Implement protective, preventative and predictive maintenance programs on all District assets to extend their life and reduce service interruptions

Customer Service – 3.D. Provide effective customer and community relations by communicating, educating, and providing information on the District and drinking water issues.

The upgrade of the existing water mains, hydrant and water services with new facilities will extend the life and reduce future maintenance of the distribution system. As part of the main replacement program, the District will upgrade and relocate existing water mains to the public right-of-ways, install new fire hydrants and water services with meters.





NO SCALE

Portion of Sacramento Suburban Water District

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W E
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EXHIBIT 1

Arden Oaks Phase 1 & 2 Location Map

(Voting Division 5)

SACRAMENTO SUBURBAN WATER DISTRICT

Base Data: Sacramento County Gis Base Map
Projection: CA State Plane 2, NAD83
Scale: No Scale
Prepared by: DAV, SSWD
Sacramento, CA - September 2013
Arden_Oaks_Loc1&2.mxd