

TO: BOARD OF DIRECTORS

FROM: DON SPAGNOLO
GENERAL MANAGER 

DATE: SEPTEMBER 1, 2010

**AGENDA ITEM
E-1**

SEPTEMBER 8, 2010

**AECOM CONTRACT AMENDMENT # 3 FOR THE SOUTHLAND WWTF
PHASE 1 IMPROVEMENT PROJECT**

ITEM

Consider execution of contract amendment #3 with AECOM for engineering services in the amount of \$194,102 for the Southland WWTF Phase 1 Improvement Project [RECOMMEND APPROVAL].

BACKGROUND

At the July 28, 2010 Board meeting, the Board considered and approved Master Plan Amendment #1 to the Master Plan for the Southland Wastewater Treatment Facility (WWTF). The amendment provides a revised layout, phasing plan, and updated project costs for improvements at the facility. AECOM is proceeding with the development of the concept design report and ultimately final design of the project.

AECOM has identified a number of issues that need to be addressed as part of the design effort that have yet to be performed and that are not within the current approved scope of the work. The work can be categorized as follows:

1. Design changes based on the revised Master Plan concept design as well as unanticipated existing conditions
2. Additional RWQCB Permitting Requirements
3. Additional Project Management due to the extended project schedule
4. Revision of previous Technical Memorandum 1 to address operation of the existing facility during construction of the new plant based on the revised Master Plan concept design

In addition, AECOM is still refining the sludge handling facilities. AECOM proposes investigating the use of a sludge thickener in place of the aerated sludge digesters previously proposed in response to staff's concerns related to the aerated sludge digesters. The advantages to the District would be that the sludge handling would be less labor intensive on day-to-day operations, electricity requirements to operate the plant would be reduced, and hauling costs would be reduced as a result of thicker sludge being delivered to the drying beds. AECOM has indicated that the construction cost of the sludge thickener would be offset by the elimination of the decant pump station at the sludge drying beds since the decant station would not be required under this scenario.

AECOM has provided the attached Scope Amendment #3 that details all of the required work tasks and their associated costs. As set forth in the attached proposal, AECOM is willing to perform this work on a time-and-materials basis with a not-to-exceed expenditure limit of \$194,102.

AGENDA ITEM E-XX
SEPTEMBER 1, 2010

There may be future amendments to the design agreement given the nature of the project and the time and materials basis of the design agreement. The design is still at a preliminary level, the EIR has not been completed, and the permitting process through the Regional Water Quality Control Board has yet to be initiated.

FISCAL IMPACT

As of August 27, 2010, AECOM has billed the District for \$294,150.85 for design services for the project. Execution of the proposed amendment would increase the not-to-exceed expenditure limit from \$966,615 to \$1,160,717. With the proposed amendment, the remaining contract amount to be billed will be \$866,566.15. The FY 10-11 Budget includes \$2,000,000 in Town Sewer Capacity Charges Fund (Fund #710) for the project. Thus, sufficient funding is available in the current fiscal year.

RECOMMENDATION

Staff recommends that your Honorable Board authorize the General Manager to execute an amendment with AECOM in the amount of \$194,102 to the existing Southland WWTF Phase 1 Improvement Project Final Design Agreement.

ATTACHMENTS

AECOM Budget Revision Request Dated September 1, 2010

t:\board matters\board meetings\board letter\2010\100908 southland wwtf design agreement scope amendment #3.doc



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September 1, 2010

Mr. Don Spagnolo, PE
General Manager
Nipomo Community Services District
PO Box 326
Nipomo, CA 93444

Dear Don,

Southland WWTF Upgrade Project - Scope Amendment #3

The Scope Amendment described herein includes work that has not yet been performed, but is recommended or required due to changes in the project. The following categories of work are addressed below:

1. Design changes;
2. Additional permitting requirements from Regional Water Quality Control Board (RWQCB);
3. Additional Project Management Services due to schedule changes; and
4. Revision to previous Technical Memorandum 1 to address operation of existing facility during construction of the new plant.

A detailed description of each of these work categories is provided below. The previously-submitted administrative draft Concept Design Report includes a cost opinion that already addresses construction of these items, as requested by District staff.

The sludge thickening system is the only additional item not addressed in that cost opinion, and at this time we anticipate the construction cost for that item can be mitigated. If thickened sludge is conveyed to the drying beds, the decanting pump station and piping system will no longer be required. This was estimated at a construction cost of \$400,000, and it is our opinion this is an adequate budget for the thickening system. In addition, the use of the sludge thickener will reduce sludge hauling and disposal costs by allowing the drying beds to dry sludge to a higher percentage solids much more quickly. Automation of sludge transfer provided by the thickener and sludge pumps will reduce operator time requirements, saving cost. The power requirement will be considerably less for the thickener than for the aerated sludge digestion system previously proposed in the administrative draft Concept Design Report, also resulting in lower operation cost.

Description of Additional Work Items

1. Design Changes

The Nipomo Community Services District (District) Southland Wastewater Treatment Facility (WWTF) Upgrade Project consists of the Phase 1 WWTF Improvements as described by the original Southland WWTF Master Plan (January 2009) and Amendment #1 (August 2010). The Amendment presented a new site plan, which was developed to address updated influent flow and loading data. The study provided recommendations for a revised, three-phase project, including additional components not previously identified. District staff also requested a new control building and a nonpotable water system with disinfection, as well as a more compact plant layout to improve operability. These facilities were included in the study.

In July 2010, AECOM submitted the Administrative Draft Concept Design Report. Feedback and discussions with District staff identified staff concerns regarding the aerated sludge digesters and proposed operations. The primary concern was transfer of sludge into and out from the digesters without constructing an expensive pumping facility.

As a result of these changes, this scope amendment addresses integration of the following items into the Draft Concept Design Report and subsequent design:

- Improved sludge handling facilities – As discussed above, AECOM is investigating the use of a sludge thickener in place of the aerated sludge digesters previously proposed. Advantages include less intensive day-to-day operations, reduced electricity requirements, and greatly reduced hauling costs as a result of thicker sludge delivered to drying beds.
- Non-potable water pump system – Process water is required at the plant for spraydown and use in various processes. The estimated water requirements for Phase 3 are 100,000 gallons-per-day. A non-potable water pump system will allow the District to reuse treated wastewater, which will save water costs and protect the groundwater basin.
- Controls & blower building - The original scope of work assumed that the existing blower building would be modified for use with the new blowers. Examination of the building and preliminary pipe sizes revealed that significant modifications to the existing building would be required. Design revisions approved per Master Plan Amendment #1 included site changes for the secondary clarifiers and aeration basins, mandating the need for a new building located across the site from the existing blower building.
- Site piping – The original scope assumed some of the existing site piping would be usable. However, development of the design-level hydraulic profile has revealed that larger pipelines will be required to prevent significant changes to the percolation pond elevations.

2. Additional RWQCB Permitting Requirements

The original scope assumed that this project would require an amendment to the existing Waste Discharge Requirements, since the Phase 1 flow rates do not increase the current permitted discharge. However, meetings with permitting staff from the Central Coast Regional Water Quality Control Board (RWQCB) have revealed that the District must submit a Report of Waste Discharge (RWD). The RWD will request new Waste Discharge Requirements (WDRs) to reflect a significant upgrade to treatment process at the Southland WWTF. The new WDRs will also include a summary and schedule for Phase 2 and Phase 3 improvements, as well as development of offsite percolation or reuse opportunities to meet the projected Phase 3 flow of 1.67 MGD.

3. Additional Project Management Services

The original contract had an estimated schedule of 12 months for design and bid phase. The current project schedule (draft August 25, 2010) estimates 28 months, a difference of 16 months. AECOM requests augmentation of the Project Management budget to fund additional project status meetings, reports, and coordination with District staff and other Project Team members.

4. Revision to Technical Memorandum #1

On September 30, 2009, AECOM submitted draft TM#1 for District review and comment. Draft TM#1 provides a plan for continuous operations of the WWTF during construction of the improvements. Our original scope included time for meetings, the draft TM#1, and a final document after receipt of District comments. However, the project team, including District staff, determined that TM#1 should be finalized after completion of the Concept Design Report (CDR) in order to adequately capture the

design. To finalize TM#1, and incorporate the significant design changes that have occurred between September and the final CDR, we anticipate an additional submittal will be required for District review and comment.

Scope of Work

The Scope of Work below describes changes to the original task groups from the contract and approved amendments.

Task Group 1. Draft Concept Design Report

Task 103A. Revised Technical Memorandum #1 Permitting & Operations during Construction (TM#1)

The proposed budget for this task includes preparation and submittal of draft final TM#1 and one meeting with District staff to discuss comments. Preparation and submittal of final TM#1 will occur after receipt of District staff comments. Four hard copies will be delivered with each submittal, and one electronic file, as pdf, will be provided with the final submittal.

Task 104A. Investigate Alternative Sludge Handling Processes – Feedback from District staff on the Master Plan Amendment and administrative draft Concept Design Report included concerns regarding operation of the aerated sludge digesters. Based on conversations with District staff, AECOM began a preliminary investigation into design modifications and alternatives to the aerated sludge digesters to ease operations. The preliminary investigation included collection of estimated sludge production and sludge waste calculations and development of preliminary alternative designs to evaluate feasibility and cost-effectiveness of an alternative sludge handling approach. Through this investigation and internal review of the administrative draft Concept Design Report, AECOM has identified mechanical dewatering systems that will allow the District to dry the sludge to a greater extent before hauling, reducing hauling costs. Additional investigation will be required to adequately evaluate the design alternatives.

Task 104B. Technical Memorandum #2 Sludge Dewatering System (TM#2) – After AECOM has identified feasible design alternatives to the sludge digesters, information will be collected to provide comparison against the existing design, including identification of required equipment, the basic operations requirements, and a construction cost opinion.

AECOM will summarize the findings and provide recommendations in Draft TM#2 for the District's review and comment. The budget for this task assumes that we will meet with staff at a regularly scheduled status meeting to discuss comments on the draft. Comments will be addressed and integrated into Final TM#2. Four hard copies and one electronic copy, as a PDF, will be delivered to the District. AECOM will present the findings and recommendations to the Southland WWTF Upgrade Project Committee and to the Board of Directors, and request direction from the Board regarding the recommendations and potential design change.

Task 104C. Sludge Dewatering System Concept Design – Assuming recommendations from TM#2 and direction from the Board support installation of a sludge dewatering system, AECOM will provide a concept design for mechanical dewatering of the sludge. The concept design will address items including preliminary layout and section views, description of required equipment, including polymer feed requirements as applicable, operations and controls discussion, and an opinion of probable construction cost and annual operations and maintenance cost. The design will be integrated into Draft Concept Design Report for the District's review and comment.

AECOM will only proceed with this task after notice from the Board based on Task 104B.

Task 104D. Non-Potable Water (NPW) System Concept Design – The WWTF currently utilizes potable water for plant water at various locations, including hose bibs at the lift station and grinder pumps, near the aerated ponds, and the blower building, and for an emergency eyewash station near the blower building. The WWTF improvements will require a regular supply of water for various equipment processes and washdown. While potable water will still be required for the emergency eyewash station, non-potable water collected from the treated effluent could be utilized for the majority of the process water. Furthermore, treated effluent could be used for landscape irrigation around the site. The proposed work for this task is based on discussions with District staff.

AECOM will integrate the preliminary design of an NPW system into the Draft Concept Design Report. The design will include a pumping station to collect treated effluent, a hydropneumatic tank to reduce pump run times, a sodium hypochlorite storage and dosing system, and site piping.

Task 104E. Controls & Blower Building Concept Design – AECOM will integrate the preliminary design of the controls and blower building in the the Draft Concept Design Report. It will include preliminary layout, section, and floor plan for the building and preliminary HVAC requirements.

Task 105. Narrative Report – The original scope included time and budget for a narrative report, describing the proposed project based on the Final Concept Design Report. District staff has indicated that a project narrative is not needed at this time. We have included a credit for this task in this scope amendment, as shown in the attached table.

Task Group 2. Construction Documents

The scope for this task group has been revised considering the amended design presented in Master Plan Amendment #1, results from the preliminary concept design process and discussions with District staff as mentioned above. Changes include provisions for the following items:

- Non-potable water system
- Controls and blower building
- Sludge dewatering system
- Upgraded site piping – plan and profiles

AECOM will prepare bid documents in the District's standard format, including contract documents and technical specifications. A preliminary list of construction drawings is included with this Scope Amendment.

Task Group 3. Project Management

Tasks 301 through 310 – Project management tasks, such as monthly progress reports and meetings with District staff, the Committee, and the Board of Directors, have been updated to reflect the latest schedule. Staff allocation has also been updated based on existing project needs.

Task 311. Review of Draft EIR documentation – Time was added to review and comment on the draft Environmental Impact Report documents to ensure the project description is correct and that the District understands and incorporates potential mitigation measures in the construction plans.

Task Group 4. Assistance during Bid

Once design is complete, the scope for this Task Group will be reviewed. We have no proposed changes to this task group at this time.

Task Group 5. Office Engineering Services

Once design is complete, the scope for this Task Group will be reviewed. We have no proposed changes to this task group at this time.

Task Group 6. Master Plan Amendment

Master Plan Amendment #1 was completed in August 2010 on time and within budget. We have no proposed changes to this task group.

Task Group 7. Waste Discharge Report

The scope of services for this Task Group describes the work needed to prepare a Report of Waste Discharge (RWD) and obtain approval by the RWQCB. AECOM will conduct work tasks as outlined below to prepare an RWD for submission to the RWQCB by the District. This RWD will serve as the application for waste discharge requirements for a new treatment facility and effluent disposal facilities.

The work tasks to prepare a complete RWD may change based on RWQCB comments or requests for additional information. Outlined below are the work tasks that are presently deemed necessary to prepare this technical report.

701. Attend a preliminary meeting with the RWQCB to discuss this project in concept and the information needs for the RWD.
702. Collect, evaluate, and summarize historical data from the WWTF such as wastewater flows and characteristics (from draft Concept Design Report and Southland WWTF Master Plan Amendment #1).
703. Prepare an administrative draft RWD. Submit four copies to the District. It is anticipated that the draft will address the following:
 - a. Description of existing facility, flows, loadings, and discharges
 - b. Summary of the proposed phased treatment processes and design parameters (from draft Concept Design Report and Southland WWTF Master Plan Amendment #1)
 - c. Description of the District's previous, ongoing, and planned efforts to develop a wastewater disposal/reuse strategy to meet buildout demands, including summary of potential future disposal and reuse practices
 - d. The progress in meeting CEQA requirements for the project.

- 704. Meet and discuss the overall findings, conclusions, and recommendations in the RWD with the District's staff.
- 705. Prepare a draft RWD incorporating all review comments received from the administrative draft. Four copies will be delivered to the District and one to the RWQCB for their review, and comment.
- 706. Meet with RWQCB staff to discuss their review comments on the draft RWD.
- 707. Prepare final RWD incorporating the RWQCB review comments on the draft RWD. Four copies will be delivered to the District and one to the RWQCB for permit processing.

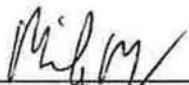
Budget

Our fee and charges will be invoiced on a time and materials basis, with a budget not to exceed \$194,102 as detailed above and in the attached table, unless additional authorization is requested in writing. This brings the total not-to-exceed budget from \$966,615.28 to \$1,160,717.28. The current fee schedule, attached, was used as the basis for this budget.


Schedule

The attached project schedule reflects changes required for the scope amendment. The design schedule has extended. However, the overall project schedule has been reduced by 7 weeks. A meeting between District staff, AECOM, and RWQCB staff resulted in coordination to begin the permitting process early. Updated WDRs will not be approved until after certification of the project EIR. RWQCB staff has agreed to prepare draft WDRs based on the draft RWD and CEQA documents.

Sincerely,



Michael K. Nunley, PE
Project Manager



Jeff Hanlon, PE
Managing Engineer

Enclosures: Budget for Scope Amendment #3
2010 Fee Schedule
Preliminary List of Construction Drawings
Updated Project Schedule

Project Budget

**Southland WWTF Upgrade Project
Scope Amendment #3**

Nipomo Community Services District

Task Description	Personnel Hours								Budget			
	Principal	Senior Engineer II	Senior Engineer I	Associate Engineer	Assistant Engineer	Senior CADD Operator	Drafter	Clerical	Total Hours	Labor	Non-Labor Fee	Total
Task Group 1 - Concept Design Phase												
Task 103A. Draft Final TM#1 (after Concept Design Report)	8	10		22		8		2	50	\$ 6,934	\$ 555	\$ 7,489
Task 104A. Investigation of feasible sludge dewatering alternatives	2	4		14					20	\$ 2,790	\$ 223	\$ 3,013
Task 104B. Sludge dewatering system technical memo (draft and final)	10	25		38		20		6	99	\$ 13,282	\$ 1,063	\$ 14,345
Task 104C. Sludge dewatering system concept design	8	16		22		22		2	70	\$ 9,364	\$ 749	\$ 10,113
Task 104D. Non-potable water system concept design	8	16		22		22		2	70	\$ 9,364	\$ 749	\$ 10,113
Task 104E. Controls and blower building concept design	8	16		22		22		2	70	\$ 9,364	\$ 749	\$ 10,113
Task 105. Narrative Report - CREDIT	(16)	(8)			(16)		(10)	(4)	(54)	\$ (7,528)	\$ (602)	\$ (8,130)
Subtotal	28	79	-	140	(16)	94	(10)	10	325	\$ 43,570	\$ 3,486	\$ 47,056
Task Group 2 - Construction Documents												
Original Budget (95 sheets) - CREDIT	(315)	(664)	(206)	(396)	(431)	(518)	(873)	(80)	(3,483)	\$ (443,470)	\$ (35,478)	\$ (478,948)
Civil Plans (60 Sheets) & Specifications	118	156	120	167	266	306	249	40	1,422	\$ 176,005	\$ 14,080	\$ 190,085
Structural Plans (36 Sheets) & Specifications	124	197	132		228	351	372	18	1,422	\$ 175,855	\$ 14,068	\$ 189,923
Mechanical Plans (5 sheets)	4	60				64			8	\$ 17,696	\$ 1,416	\$ 19,112
Electrical Plans (26 Sheets) & Specifications	114	315			190		253	20	892	\$ 120,840	\$ 9,667	\$ 130,507
Instrumentation & Control Plans (12 Sheets) & Specifications	10		116	62			79		267	\$ 34,470	\$ 2,758	\$ 37,228
Subtotal	55	64	162	(167)	253	203	80	6	656	\$ 81,396	\$ 6,512	\$ 87,908
Task Group 3 - Project Management												
Credit for original budget	(146)	(112)			(84)	(52)		(26)	(420)	\$ (63,692)	\$ (5,095)	\$ (68,787)
Task 301. Kickoff Meeting	8	8			4				20	\$ 3,320	\$ 266	\$ 3,586
Task 302. Monthly Progress Reports	28							12	40	\$ 6,464	\$ 517	\$ 6,981
Task 303. Decision Log	12							8	20	\$ 2,976	\$ 238	\$ 3,214
Task 304. Meetings with District staff	28			28					56	\$ 9,100	\$ 728	\$ 9,828
Task 305A. Monthly Wastewater Committee Meetings	56			56					112	\$ 18,200	\$ 1,456	\$ 19,656
Task 305B. Monthly Board Meetings	28			28					56	\$ 9,100	\$ 728	\$ 9,828
Task 305C. Public Forums / Workshops (2)	14	16		12		4			46	\$ 7,280	\$ 582	\$ 7,862
Task 305D. Southland Operators Workshops (2)	8	8		8		4		6	34	\$ 4,732	\$ 379	\$ 5,111
Task 306. RWQCB Interaction, Planning (2 meetings), and Correspondence	20	4		16					40	\$ 6,640	\$ 531	\$ 7,171
Task 307. Miscellaneous Exhibits		4		4		36			44	\$ 4,920	\$ 394	\$ 5,314
Task 308. Funding Assistance	12	8							20	\$ 3,680	\$ 294	\$ 3,974
Task 309. Final Design Constructability (2 workshops)	12	16		8		8			44	\$ 6,800	\$ 544	\$ 7,344

Project Budget

Southland WWTF Upgrade Project
Scope Amendment #3

Nipomo Community Services District

Task Description	Personnel Hours								Budget			
	Principal	Senior Engineer II	Senior Engineer I	Associate Engineer	Assistant Engineer	Senior CADD Operator	Drafter	Clerical	Total Hours	Labor	Non-Labor Fee	Total
Task 310. Process Equipment Procurement and Negotiaion	8	4		8					20	\$ 3,240	\$ 259	\$ 3,499
Task 311. Review of EIR documentation	8			20					28	\$ 4,100	\$ 328	\$ 4,428
Subtotal	96	(44)	-	188	(80)	-	-	-	160	\$ 26,860	\$ 2,149	\$ 29,009
Task Group 7 - Waste Discharge Report												
Task 701. Preliminary Meeting with RWQCB & NCSD staff	1			2					3	\$ 450	\$ 36	\$ 486
Task 702. Data collection and evaluation	2			4					6	\$ 900	\$ 72	\$ 972
Task 703. Administrative Draft RWD	8	38		52		16		8	122	\$ 16,436	\$ 1,315	\$ 17,751
Task 704. Meeting with District staff for review of comments	2			2					4	\$ 650	\$ 52	\$ 702
Task 705. Draft RWD	2	8		20		4		4	38	\$ 4,888	\$ 391	\$ 5,279
Task 706. Meeting with RWQCB & District staff	2			2					4	\$ 650	\$ 52	\$ 702
Task 707. Final RWD	2	6		16		4		2	30	\$ 3,924	\$ 314	\$ 4,238
Subtotal	19	52	-	98	-	24	-	14	207	\$ 27,898	\$ 2,232	\$ 30,130
Total	198	151	162	259	157	321	70	30	1,348	\$ 179,724	\$ 14,378	\$ 194,102

<u>Personnel Category</u>	<u>\$/HR</u>
Principal	\$200.00
Senior Engineer II	\$160.00
Senior Engineer I	\$145.00
Associate Engineer	\$125.00
Assistant Engineer	\$110.00
Senior CADD Operator	\$105.00
Drafter	\$100.00
Clerical	\$72.00

AECOM

FEE SCHEDULE FOR PROFESSIONAL SERVICES
Effective January 1, 2010

Engineers, Planners, Architects, Scientists:

Principal	\$200.00 per hour
Managing Engineer	\$175.00 per hour
Senior II	\$160.00 per hour
Senior I	\$145.00 per hour
Associate	\$125.00 per hour
Assistant	\$110.00 per hour
Construction Observer	\$110.00 per hour

Technical Support Staff:

Design/CADD Supervisor	\$120.00 per hour
Senior Designer/Design CADD Operator	\$105.00 per hour
Drafter/CADD Operator	\$100.00 per hour
Clerical/General Office	\$72.00 per hour

General Project Expenses ⁽¹⁾ 8% of Labor

Direct Project Expenses

Other Reproduction (8-1/2 x 11/11x17 Color)	\$1.15/1.50 per page
Plan Sheet Printing – In House Bond / Mylar	\$3.00/7.00 per sheet
Subcontracted Services/Reproduction	Cost + 10%
Subcontracted or Subconsultant Services	Cost + 10%
Auto Mileage for Construction Phase Services	\$0.60 per mile
Travel & Subsistence (other than mileage)	Cost
Miscellaneous Supplies/Services	Cost + 10%

If authorized by the Client, an overtime premium multiplier of 1.5 may be applied to the billing rate of hourly personnel who work overtime in order to meet a deadline which cannot be met during normal hours.

Applicable sale taxes, if any, will be added to these rates. Invoices will be rendered monthly. Payment is due upon presentation.

Fee schedule is subject to change.

⁽¹⁾ Includes mail, telephone, fax, office photo copies, personal computers and mileage (except as noted).

Southland WWTF Phase 1 Improvements
Preliminary Sheet List

9/1/2010

Sheet Name	Title	# of Sheets
General		25
G1, G2, G3	Title Sheet, Drawing Index, and General Notes	3
G4 – G7	Site Layout, Schematics, and Design Criteria	3
S1 – S4	Structural Notes and Details	4
E1 – E3	Electrical Symbols, Single Line Diagram, and Site Plan	3
N1, N2	Instrument Legend and Symbols, and Communication Block Diagram	2
C1 – C10	Utility Plan and Details; Site Piping Plan and Profiles	10
Influent Pipe and Lift Station		13
C101	Grading & Demolition Plan	1
C102, C103	Influent Pipe & Lift Station Plan & Profile	2
C104, C105	Lift Station & Metering Station Details	2
C106	Metering Station Details	1
S101 - S104	Structural	4
E101, E102	Electrical	2
N101	Instrumentation and Controls	1
Mechanical Screens and Grit Removal System		13
C201	Grading Plan	1
C202, C203	Site Layout & Piping Plan	2
C204	Screening Details	1
C205	Grit Removal System Details	1
S201 – S204	Structural	4
E201 – E203	Electrical	3
N201	Instrumentation and Controls	1
Biolac® Wave Oxidation System		9
C301	Grading & Demolition Plan	1
C302, C303	System Layout & Piping Plan	2
C304, C305	Biolac Details	2
S301	Anchor Plans	1
E301, E302	Electrical	2
N301	Instrumentation and Controls	1
Secondary Clarifier + Clarifier Bid Alternate (A)		20
C401, C401A	Grading Plan, grading plan for bid alternate	2
C402 – C404	Site Layout & Piping Plan	3
C402A - C404A	Site Layout & Piping Plan for bid alternate	3
S401 – S406	Clarifier Plan & Sections	4
S401A - S406A	Clarifier Plan & Sections for bid alternate	4
E401, E401A	Electrical, Electrical for bid alternate	2
N401, N401A	Instrumentation and Controls, I&C for bid alternate	2
Sludge Dewatering		13
C501, C502	Site Layout & Piping Plan	2
C503 - C506	Thickener, polymer feed, and pumping details	3
S501 - S504	Structural	4
M501	Plumbing	1
E501, E502	Electrical	2
N501	Instrumentation and Controls	1
Standby Holding Pond		3
C507 - C509	Site layout and piping plan, details	3
Sludge Drying Beds		6
C601	Grading Plan	1
C602, C603	Site Layout & Piping Plan	2
C604	Sludge Bed Details	1
S601, S602	Structural	2

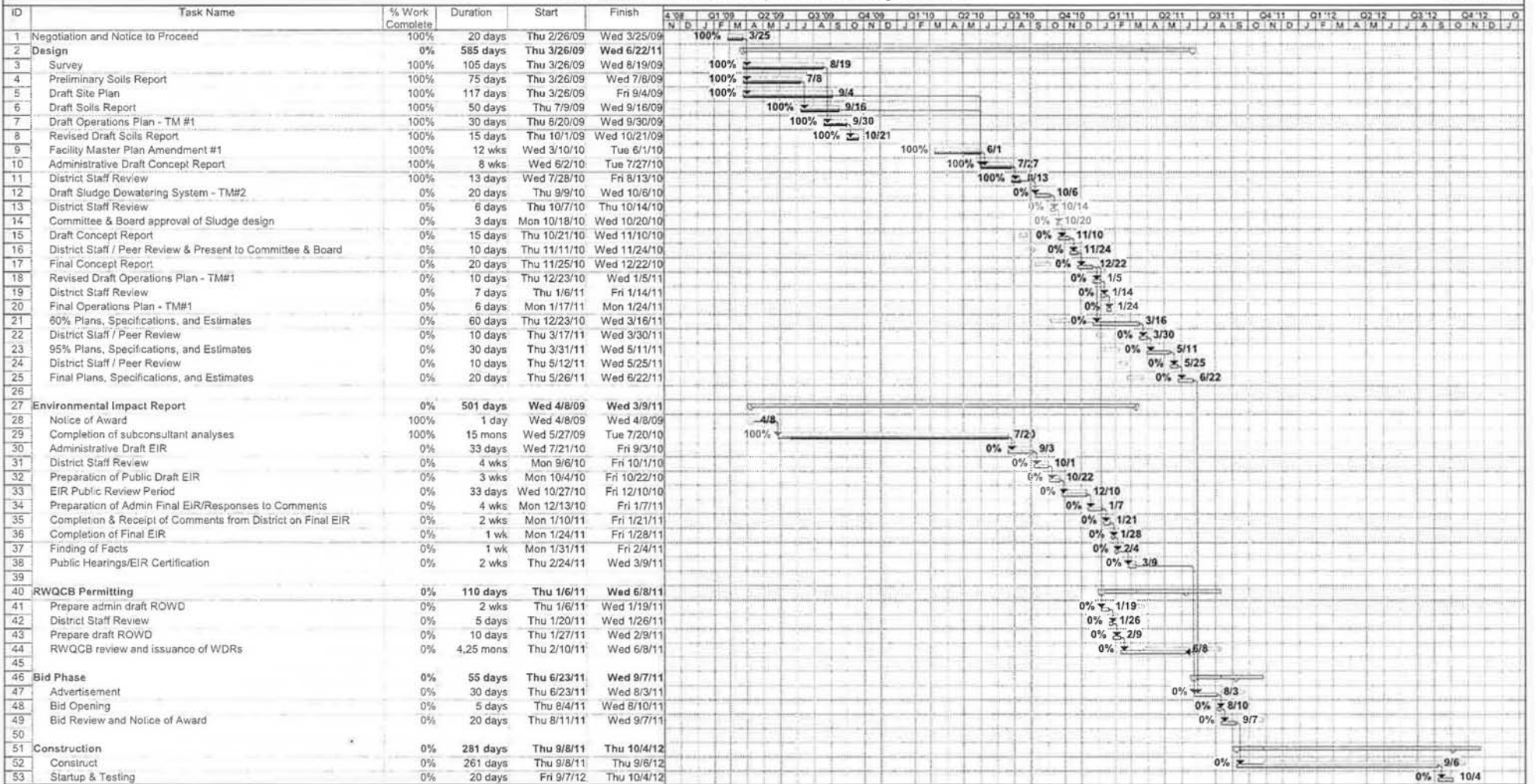
Southland WWTF Phase 1 Improvements
Preliminary Sheet List

9/1/2010

Sheet Name	Title	# of Sheets
Electrical, Instrumentation, and Controls		10
N701, N702	Control Panel Layout & Instrument Mounting Details	2
E702 – E704	Schematic Diagrams	3
E705	Panel and Fixture Schedules	1
E706 – E708	Electrical Details	3
E709	Conduit Schedule	1
Non-Potable Water System		14
C801	Pump station plan and sections	1
C802	Hydropneumatic tank plan and section	1
C803	Sodium hypochlorite storage and dosing plan and section	1
C804	Details	1
S801 - S804	Structural	4
M801, M802	Mechanical	2
E801, E802	Electrical	2
N801, N802	Instrumentation	2
Controls & Blower Building		13
C901	Grading Plan	1
C902 - C904	Layout and Details	3
S901 - S905	Structural	5
M901, M902	Mechanical plumbing and HVAC	2
E901, E902	Electrical	2
TOTAL		139

Southland WWTF Phase 1 Improvements Design Schedule

Tue 8/31/10



Project: Southland Design & 03 09
Date: Tue 8/31/10

Task	—————	Milestone	◆	Rolled Up Critical Task	○	Rolled Up Baseline Milestone	◐	External Tasks	—————
Progress	▬▬▬▬▬	Baseline Milestone	◊	Rolled Up Milestone	◑	Split	Group By Summary	▬▬▬▬▬
Baseline	—————	Summary	◊	Rolled Up Baseline	▬▬▬▬▬	Baseline Split	Deadline	◆

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TO: BOARD OF DIRECTORS

FROM: DON SPAGNOLO
GENERAL MANAGER 

DATE: SEPTEMBER 3, 2010

**AGENDA ITEM
E-2**

SEPTEMBER 8, 2010

**MODIFICATIONS TO GROUNDWATER CONSULTING CONTRACT
WITH SCIENCE APPLICATIONS INTERNATIONAL CORPORATION**

ITEM

Consider modifications to groundwater consulting contract with Science Applications International Corporation (SAIC) for professional services related to General Consultation, Nipomo Mesa Management Area Technical Group (NMMA) and Oso Flaco Replacement Well [APPROVE STAFF RECOMMENDATION FOR TASK ORDER 220 AND 300 AND PROVIDE DIRECTION AS TO TASK ORDER 100].

BACKGROUND

SAIC initially provided consultation services, including expert testimony, to Your Honorable Board through the District special counsel on water rights (Richards Watson and Gershon) as part of the ongoing Santa Maria Valley Groundwater adjudication. Following completion of the trial's more contentious discovery phases, the District contracted directly with SAIC beginning in 2006.

Dr. Bradley Newton of SAIC was the District's project manager and has developed extensive knowledge of basin function and District water rights and has attended NMMA meetings as the representative on behalf of the District. Dr. Newton has recently joined the firm of Wagner & Bonsignore and no longer works for SAIC. Both SAIC and Wagner & Bonsignore would like to provide groundwater consulting services to the District. Currently the District has three task orders related to groundwater consulting services.

Task Order 100 – General Consultation includes the preparation of two evaluations of the Groundwater Index, including presentation of the Index at a regular Board meeting and other services related to the evaluation of the groundwater. SAIC indicated in a letter dated August 2, 2010 that they would like to continue with this service and have qualified staff available to accommodate services requested by the District. Wagner & Bonsignore has also submitted a proposal to perform these services. Both firms have staff familiar with this task. Most of the work was performed by Joel Degner under the supervision of Dr. Brad Newton. SAIC is proposing that Mr. Degner continue to serve as their representative for this task. A copy of Mr. Degner's resume is attached for the Board's information.

Both firms have access to the District's technical reports, digital data and Geographic Information System (GIS) layers of information. This information is the property of the District. The program used to develop the groundwater index, water surface profiles and other reports were prepared using ArcView. This program is an independent third party software that is sold to the general public and used by many engineering firms and public agencies.

Task Order 220 – NMMA Technical Group Participation includes attending all Technical Group meetings and acting as secretary for the Group. This includes the preparation of meeting agendas and minutes. Additionally, the District representative participates in various subcommittees and development of the Group's Annual Report. The Technical Group formed in 2008 and produced their first annual report in 2009. Since inception, the Group has

experienced a number of protracted technical discussions that might be expected as a group of groundwater hydrology experts attempt to reach a consensus understanding of the basin and set groundwater action levels based on that understanding. SAIC has submitted a letter dated August 2, 2010 requesting that their services related to this task order be terminated due to recent staff changes. On August 25, 2010 the Board was informed that a Task Order for Wagner & Bonsignore will be prepared to have Brad Newton serve as the District representative on the NMMA Technical Group until the Board considered a formal contract to provide these services. Wagner & Bonsignore has also submitted a proposal to continue to represent the District on the NMMA Technical Group.

Task Order 300 – The Oso Flaco Lake Replacement Well is part of the NMMA Technical Group activities. The project is to replace the sentinel well at Oso Flaco Lake as part of the Technical Group's efforts to measure groundwater levels and water quality. SAIC has indicated that they do not have staff available to accommodate the services to satisfy the requirements of this task order. Wagner & Bonsignore has submitted a proposal to perform this work for the District.

FISCAL IMPACT

Funds for these services are included in the FY10-11 Budget. A total of \$40,000 was budgeted for General Consulting Services and \$80,000 for participating in the NMMA.

RECOMMENDATION

Staff recommends the Board:

Task 100 - The Board review qualifications of both SAIC and Wagner & Bonsignore to perform this task and authorize the Board President to execute an agreement with the firm selected by the Board and issue a new task order.

Task Order 220 – Authorize the Board President to sign an agreement for professional services with Wagner & Bonsignore to participate in NMMA Technical meetings on behalf of the District and issue a new task order. Authorize the General Manager to pay the remaining balance of \$2,300 to SAIC.

Task Order 300 – Authorize the Board President to Sign an agreement for profession services with Wagner & Bonsignore related to advancing the replacement of the sentinel well at Oso Flaco Lake and issue a new task order.

ATTACHMENTS

- SAIC letter dated August 2, 2010 related to Task Orders 100-06 and 200-08
- Proposal of Professional Services to Nipomo Community Services District dated August 13, 2010 by Wagner & Bonsignore



August 2, 2010

Nipomo Community Services District
148 South Wilson Street
Nipomo, CA 93444

Attention: Mr. Don Spagnolo, General Manager

Subject: Continuation of Services Under Engineering Services Agreement Task Order
#100-06

Dear Mr. Spagnolo:

On March 23, 2006, Science Applications International Corporation (SAIC) entered into an agreement for "Professional Engineering Services" with Nipomo Community Services District (NCSD). Pursuant to that agreement, SAIC and NCSD entered into task order #100-06 for General Consulting Services.

This letter is to inform you that, even with recent staff changes, SAIC has qualified staff available to accommodate services requested by NCSD under this project and that SAIC plans to continue to provide services for the above mentioned project.

If you have any questions or require additional information, please do not hesitate contact me at (858) 826-7597 or by email at jessica.l.mclean@saic.com.

Thank you in advance for your understanding and consideration in this matter.

Sincerely,
SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

A handwritten signature in cursive script that reads "Jessica L. McLean".

Jessica L. McLean
Contracts Representative



August 2, 2010

Nipomo Community Services District
148 South Wilson Street
Nipomo, CA 93444

Attention: Mr. Don Spagnolo, General Manager

Subject: Request for Termination of Engineering Services Agreement Task Order #220-08

Dear Mr. Spagnolo:

On March 23, 2006, Science Applications International Corporation (SAIC) entered into an agreement for "Professional Engineering Services" with Nipomo Community Services District (NCSD). Pursuant to that agreement, SAIC and NCSD entered into task order #220-08 to participate in Nipomo Mesa Management Area (NMMA) Technical Group (TG) meetings.

This letter is to inform you that, due to recent staff changes, SAIC does not have the staff available to accommodate the services required to satisfy the requirements of this project. Therefore, SAIC requests that the above mentioned project be terminated for convenience pursuant to clause 18D of the Professional Engineering Services Agreement.

If you have any questions or require additional information related to this request, please do not hesitate contact me at (858) 826-7597 or by email at jessica.l.mclean@saic.com.

Thank you in advance for your understanding and consideration in this matter.

Sincerely,
SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

A handwritten signature in cursive script that reads "Jessica L. McLean".

Jessica L. McLean
Contracts Representative

Joel S. Degner, EIT

B.S., Hydrologic Sciences, University of California, Santa Barbara (2004)
Engineer-in-Training (2008)

WORK SUMMARY

Mr. Degner specializes in water resources engineering and provides technical support for major water resource projects in the Western States. His work has focused on surface water models, groundwater evaluations, GIS analyses, mapping, water resource aspects of California Environmental Quality Act (CEQA), Urban Water Management Plans, Integrated Regional Water Management Plans, water rights hearings before the State Board, and groundwater adjudications.

Mr. Degner also has experience with biological resources. His work has focused on snowy plover surveys, rare plant surveys, native plant restoration, wetland delineations, GIS analyses, mapping, biological assessments, and multi-species habitat conservation plans.

PROFESSIONAL EXPERIENCE

Science Applications International Corporation (2005 to Present)

Water Resources

Water Resource Support, City of Palmdale, April 2007 to December 2008. Mr. Degner assisted in the water supply planning for the City of Palmdale and with litigation support on behalf of the City during the Antelope Valley Groundwater Adjudication. Mr. Degner also measured the percolation rates of test pits with a flow meter and a staff gage and performed preliminary evaluations of the stream hydrology and underlying hydrogeology for a proposed recharge project.

Seven Oaks Dam Economic Analysis, San Bernardino Valley Municipal Water District, March 2007 to October 2009. Mr. Degner evaluated the unit cost of water associated with the implementation of "build out" of Seven Oaks Dam and associated facilities to divert water from the Santa Ana River. Mr. Degner utilized a surface water model of the reservoir operations and an allocation of model of the pipelines, spreading grounds, and treatment plants to estimate the yield under different project scenarios.

Lookout-Yellowhead Engineering Evaluation/Cost Analysis, Pend Orielle County, Washington, Bureau of Land Management, March 2008 to May 2008. Mr. Degner analyzed the surface and sediment water quality samples and assessed ecological and human risk of exposure to waste rock from zinc mining operation. Mr. Degner also assisted in the compilation of the Engineering Evaluation/Cost Analysis report including the site characterization and the identification and screening of the removal action alternatives.

Upper Santa Ana River Water Resources Association Integrated Regional Groundwater Management Plan, San Bernardino Valley Municipal Water District, January 2006 to November 2007. Mr. Degner assisted in the development of a water budget to estimate the future demands and available supplies for the water purveyors in the upper Santa Ana River watershed and wrote a section of the final IRWM Plan. Mr. Degner programmed a spreadsheet based Allocation Model and iterated with a MODFLOW groundwater model to optimize the management of the San Bernardino groundwater basin. Mr. Degner analyzed the water reliability in the event of a catastrophic earthquake on the San Andreas Fault and summarized water recycling and water conservation activities in the region.

Santa Ana River Water Rights Applications for Supplemental Water Supply, San Bernardino Valley, CA, Downey Brand, San Bernardino Valley Municipal Water District, March 2005 to May 2007. Mr. Degner provided technical support for the State Water Resources Control Board water right hearing for the Santa Ana River. Prepared exhibits for the water rights hearing. Mr. Degner provided litigation support in modeling different scenarios as part of settlement negotiations prior to the hearing. Mr. Degner provided analyses on surface water quality, reservoir sedimentation, and error propagation and worked with surface water models to produce flow duration curves for the Santa Ana River, storage-elevation graphs for the Seven Oaks Reservoir, and flow schematics for the Santa Ana River for EIR response to comments.

Nipomo Mesa Management Area Annual Report and General Consultation, Nipomo Community Services District, June 2006 to October 2009. Mr. Degner assisted in the development 1st Annual Report and 2nd Annual Report for the Nipomo Mesa Management Area. Mr. Degner compiled data for water production, groundwater elevation, wastewater discharge, and agricultural land use. Mr. Degner estimated the agricultural water use based on crop-type and evapotranspiration. Mr. Degner reviewed and compiled GIS and groundwater measurement data into a database for a groundwater monitoring program. Mr. Degner worked with a GIS programmer to develop groundwater tools in ArcGIS to view well hydrographs. Mr. Degner estimated the volume of the groundwater in storage and calculated the change in groundwater storage over a time.

Hobson Ranch Litigation Support, Jackson DeMarco Tidus Peckenpaugh, January 2007. Mr. Degner measured the slope and channel cross-sections of a barranca (stream channel) with a level and stadia to estimate the channel capacity. Mr. Degner analyzed rainfall data pertaining to the storm event in which the stream overtopped its banks and prepared trial exhibits summarizing the rainfall data.

FWUA-Metropolitan Partnership Support Services, Friant Water Users Authority, April 2006 to February 2007. Mr. Degner reviewed monthly reports and invoices and kept track of progress on several on-going Partnership projects. Mr. Degner recorded the meeting notes at Policy Committee and Technical Advisory Committee meetings.

Mammoth Pool Investigation, Friant Water Users Authority, March 2006 to April 2006. Mr. Degner incorporated environmental analysis, hydrologic analysis, dam engineering analysis, and economic analysis into Phase I feasibility report, that concerned increasing the storage in Mammoth Pool Reservoir.

Santa Maria Groundwater Litigation, Best, Best, and Krieger, February 2006. Mr. Degner acquired and analyzed historic rainfall and stream gage data related to the native inflow into the Santa Maria Groundwater Basin. Mr. Degner supported an expert witness by evaluating long-term sustainable yield of groundwater basin, projected changes in land use in the area, and the adequacy of the stipulation in maintaining the groundwater basin.

Nevada Test Site Soils Sites, Stoller-Navarro Joint Venture, Department of Energy, September 2005. Mr. Degner researched underground nuclear test events at the Nevada Test Site. Mr. Degner gathered historical resources for the Preliminary Assessment of the sites. Mr. Degner reviewed historical documents concerning the detonations for evidence of contamination at the surface, wrote summaries for the events, and recommended sites for radiation surveys and further remediation.

Nipomo Community Service District Urban Water Management Plan, NCS D, November 2005. Mr. Degner developed supply estimates and supply reliability analysis for the Nipomo Community Services District and assisted in document preparation.

City of Santa Maria/Nipomo Community Service District Water Intertie Project-Water Resource Evaluation, Doug Wood, NCS D, May to June 2005. Mr. Degner assisted in research, writing, and creating figures and tables for the water resources section of the draft EIR. Mr. Degner analyzed the impacts of a river crossing pipeline according to CEQA guidelines.

Biological Resources

Rare Plant Surveys at Santa Susana Field Laboratory, Department of Energy, October 2009. Mr. Degner assisted in rare plant surveys especially focused on Santa Susana tar plant (*Deinandra minthornii*) and Braunton's milk-vetch (*Astragalus brauntonii*). Mr. Degner collected the data using GPS unit (Trimble GeoXT) and Trupulse Laser Rangefinder and compiled the data into maps following the surveys.

Seven Oaks Dam Multispecies Habitat Conservation Plan, United States Army Corps of Engineers, 2007 to 2009. Mr. Degner participated in surveying the Santa Ana River wash for populations of the slender-horned spine flower. Mr. Degner also assisted in soil sampling and soil crust characterization of slender-horned spineflower habitat in the Santa Ana River wash. Mr. Degner also assisted in vegetation and soil depth transects following San Bernardino Kangaroo Rat surveys in the Santa Ana River wash.

Bay-Delta Habitat Conservation Plan, California Department of Water Resources, August 2008 to October 2009. Mr. Degner compiled statistics from fish survey data in the lower Sacramento River for a report on the spatial patterns and temporal abundance of fish in the Lower Sacramento River. Mr. Degner developed a Visio-based schematic of the Bay-Delta system focused on modeling efforts and fish species impacts. Mr. Degner created habitat models for various species of concern the Bay-Delta area based on a detailed vegetation mapping of the Bay-Delta. Mr. Degner calculated the impacts on special status wildlife and plant habitats under different scenarios of tidal inundation of the Bay-Delta.

Butte County Association of Governments Habitat Conservation Plan, June 2009 – Mr. Degner calculated the impacts of different planned developments on wildlife and plant habitats, using habitat models of special status species in Butte County.

Biological and Wetland Delineation Surveys at Marine Mountain Warfare Training Center, August 2009. Mr. Degner assisted in rare plant surveys and wetland delineations of proposed landing zones in the Eastern Sierra Nevada mountains. Mr. Degner compiled the wetland delineation data into figures for the report.

Rare Plant Surveys at Camp Pendleton, NAVFAC, March 2009 to May 2009. Mr. Degner assisted in vegetation mapping of native grasslands, wetland delineation, and rare plant surveys, focused especially on Thread-leaved brodiaea (*Brodiaea filifolia*) at five different project sites at Camp Pendleton.

Snowy Plover Monitoring, City of Santa Barbara, July 2007 to October 2009. Mr. Degner surveyed the City of Santa Barbara beaches in advance of beach grooming for snowy plovers and recorded all the bird species observed.

Laurel Canyon Sedimentation Basin Restoration, Cachuma Operations and Maintenance Board, December 2008. Mr. Degner planted locally harvested willows along the face of an earthen dam in order to stabilize the dam face.

West Coast Basing of the MV-22 Biological Assessment, Department of Defense, August to September 2008. Mr. Degner prepared species accounts for federally threatened and endangered species for the Biological Assessment. Mr. Degner also assisted in writing portions of the Biological Assessment.

Lompoc Wind Energy Farm EIR, Santa Barbara County, February to April 2008. Mr. Degner compiled and summarized scientific literature regarding bird strikes and wind farms, migratory bird altitudes, and the bird species and populations in the Pacific Coast Flyway.

Sisquoc River Bank Restoration, Union Asphalt Company, January 2007. Mr. Degner planted willows and mule fat along the reconstructed river bank after gravel mining operations.

Island Loggerhead Shrike Surveys

San Clemente Island Loggerhead Shrike Surveys, Spring 2009. Mr. Degner participated in the Spring 2009 surveys for the endangered island loggerhead shrike. The surveys involved two 6-hour transect along rugged canyons on San Clemente Island.

Santa Rosa Island Loggerhead Shrike Surveys, Spring 2009. Mr. Degner participated in the first annual island loggerhead shrike surveys on Santa Rosa Island. The surveys involved two day-long full cover transects of remote island canyons on Santa Rosa Island.

Museum of Systematics and Ecology, Restoration Assistant, UCSB Santa Barbara CA (2002 to 2005)

Mr. Degner assisted in restoring a five-acre vernal pool and native grassland complex from its inception to its near completion. Mr. Degner collected seeds from local plants and grew the plants in a greenhouse. Mr. Degner planted, watered, weeded the plants, monitored the plants with biannual transects and monthly photo monitoring. Mr. Degner assisted in the construction, maintenance, and monitoring of a network of experimental bioswales which used native sedges and rushes to improve the water quality of runoff entering a sensitive lagoon.

ADDITIONAL WORK EXPERIENCE

Map and Imagery Lab, Library Assistant, Santa Barbara (2002 to 2004)

Mr. Degner retrieved and filed maps and aerial photos in the largest map and imagery collection west of the Mississippi. Mr. Degner helped clients with historical searches for maps and aerial photos of various sites all across California. Mr. Degner processed and cataloged new maps, aerial photos, and books into the collection.

Senior Thesis: "The Recent Formation of Mussel Rock Ravine"

Mr. Degner wrote his senior thesis about a small coastal watershed that underwent recent major erosion, where a dune pond high on the coastal bluffs transformed into a waterfall onto the beach. Mr. Degner

used aerial photos, old maps, historical records, soil profiling, vegetation surveys, and GIS analysis to find the pond's historic location and understand the geomorphologic cause, process, and consequence of the erosion.

COMPUTER PROFICIENCY

Microsoft Office, Excel spreadsheet models, ArcGIS 9.3, Trimble GeoXT and Terrasync, HEC-HMS, HEC-GeoHMS, HEC-RAS.

REFERENCES

Trevor Pattison
Program Manager
(805) 566-6447

Thomas Mulroy, Ph. D
Principal Scientist
(805) 566-6402

I hereby affirm that the information on this, my resume, is true and complete to the best of my knowledge. I understand and agree that falsified information or omissions may result in the termination of my employment with Science Applications International Corporation.

Employee Signature **Employee # 139744** **Date**



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Wagner & Bonsignore

Consulting Civil Engineers, A Corporation

Nicholas F. Bonsignore, P.E.
Robert C. Wagner, P.E.
Paula J. Whealen
Henry S. Matsunaga

James C. Hanson
Consulting Civil Engineer
A Corporation

August 13, 2010

Brad E. Newton, Ph.D., P.G.
John Faux, P.E.
David Houston, P.E.
David P. Lounsbury, P.E.
Emily MacDonald
Ryan E. Stolfus

Mr. Don Spagnolo
General Manager, Nipomo Community Service District
148 S. Wilson Street
Nipomo, CA 93444

Re: Proposal of Professional Services to Nipomo Community Services District

Dear Mr. Spagnolo:

Pursuant to my conversation with Brad Newton, and at your request enclosed is our Proposal for Professional Services, Company Fee Schedule, and Key Staff resumes.

Wagner & Bonsignore respectfully requests to enter into a Master Services Agreement with Nipomo Community Services District (NCSD) to provide professional services to NCSD on an as-needed basis. The professional services to be provided will include but are not limited to water resources engineering, water supply planning, environmental planning, and services related to the Santa Maria Basin Litigation. In accordance with the proposed Master Services Agreement, the professional services to be provided will be described and authorized by the use of task orders which will include a description of scope of services, and an estimated time and materials budget for each task.

The purpose of this letter is to request authorization to proceed with Task Order No. 100 - General Consultation, Task Order 200 - NMMA Technical Group, and Task Order 300 - Oso Flaco Lake Replacement Well. The scopes of work and budgets are described in the following sections of this letter. Dr. Brad Newton will serve as the Wagner & Bonsignore Principal in Charge and be the point of contact for NCSD for all technical issues. It is understood that you will serve as the point of contact for NCSD for both administrative and technical issues.

Task 100 – General Consultation

Task 100, General Consulting, is proposed to allow for Wagner & Bonsignore activities that do not fall precisely under a specifically identified technical task or assignment. Establishment of Task 100 provides flexibility to both the client and consultant in addressing issues that cannot be anticipated in advance. It is anticipated that activities conducted under this task order may justify the establishment of a separate task order; in such an event a new task order would be proposed. When work requests occur that exceed the established or remaining budget within Task 100, Wagner & Bonsignore will request that the authorized budget for Task 100 be augmented so as to provide for the current work request and sufficient funding to accommodate future requests to occur under the authorized amount.

Historically, Task 100 provided for the ongoing preparation of the Spring and Fall Groundwater Index (GWI) technical memorandum and presentation thereof to your Board along with a variety of other non-ongoing specific work products.

The proposed budget for Task 100 is 20 hours of Dr. Newton's effort, plus hours for his support staff and budget for his travel when requested.

Proposed Task 100 Budget: \$5,000

Budget

Wagner & Bonsignore proposes a budget of \$5,000 be established for completion of Task Order No. 100. Wagner & Bonsignore will bill monthly on a time and expense basis in accordance with the attached schedule of fees for 2010. We will not exceed the total budget of \$5,000 without prior authorization.

Task 200 – NMMA Technical Group

Task 200, NMMA Technical Group, is proposed to allow for Wagner & Bonsignore to participate in Nipomo Mesa Management Area (NMMA) Technical Group (TG) meetings and all meeting activities within the scope of preparation for and following from meetings per conversations between Don Spagnolo and Brad Newton. It is anticipated that activities conducted under this task order may justify the establishment of a separate task order; in such an event a new task order would be proposed. When work requests occur that exceed the established or remaining budget within Task 200, Wagner & Bonsignore will request that the authorized budget for Task 200 be augmented so as to provide for the current work request and sufficient funding to accommodate future requests to occur under the authorized amount.

The estimated cost for each NMMA TG meeting under Task 200 is \$3,000 which accounts for 16 hours of Dr. Newton's effort plus budget for travel. There is typically one meeting each month. Additionally, NCSD may request Wagner & Bonsignore to participate in subcommittees, preparation of technical memoranda, and preparation of the annual report to the Court. These additional activities would be budgeted separately and Wagner & Bonsignore will request that the authorized budget for Task 200 be augmented so as to provide for the current work request.

Proposed Task 200 Budget: \$30,000

Budget

Wagner & Bonsignore proposes a budget of \$30,000 be established for professional services through December 31, 2010 conducted under Task Order No. 200. Wagner & Bonsignore will bill monthly on a time and expense basis in accordance with the attached schedule of fees for 2010. We will not exceed the total budget of \$30,000 without prior authorization.

Task 300 – Oso Flaco Lake Replacement Well

Task 300, Oso Flaco Lake Replacement Well, is proposed to allow for Wagner & Bonsignore to participate in activities established through the Nipomo Mesa Management Group (NMMA) Technical Group (TG) meetings that are specific to advancing the replacement sentinel well at Oso Flaco Lake. The purpose of the separate Task Order 300 is to clearly account for NCSD's in lieu services anticipated for reimbursement. When work requests occur that exceed the established or remaining budget within Task 300, Wagner & Bonsignore will request that the authorized budget for Task 300 be augmented so as to provide for the current work request and sufficient funding to accommodate future requests to occur under the authorized amount.

The proposed budget for Task 300 is 20 hours of Dr. Newton's effort, plus hours for his support staff and budget for his travel when requested.

Proposed Task 200 Budget: \$5,000

Budget

Wagner & Bonsignore proposes a budget of \$5,000 be established for completion of Task Order No. 300. Wagner & Bonsignore will bill monthly on a time and expense basis in accordance with the attached schedule of fees for 2010. We will not exceed the total budget of \$5,000 without prior authorization.

I look forward to working with you and the NCSD and thank you for your confidence in the staff here at Wagner & Bonsignore. Please contact Dr. Newton at (805) 636-6619 to discuss

Wagner & Bonsignore
Consulting Civil Engineers, A Corporation

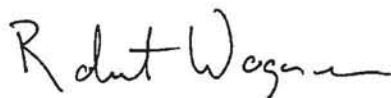
Mr. Spagnolo
August 13, 2010
Page 4

any technical aspect of this proposal, proposed scope of work or budget. If the proposed Task Order's Scope of Work and Budgets are acceptable, please have an authorized representative of NCSD provide your standard Master Services Agreement and Task Order for our review and consideration. All work will be performed in accordance with the Master Agreement Terms and Fee Schedule. You may fax a copy to us at (916) 448-3866.

We look forward to having an opportunity to work with the Nipomo Community Services District. Please contact me directly to discuss further.

Very truly yours,

WAGNER & BONSIGNORE
CONSULTING CIVIL ENGINEERS



Robert C. Wagner, P.E.

Encl. ✓

Wagner & Bonsignore
Consulting Civil Engineers, A Corporation

Proposed Staffing Duties

<u>Staff Name</u>	<u>Staff Title</u>	<u>Billing Rate</u>	<u>Staff Duties/Expertise</u>
Brad Newton	Lead / Principal In Charge	\$165	Client Point of Contact, and Program Development and Implementation including full responsibility to direct staff and oversight of work product
Robert Wagner	Principal Engineer	\$225	Over sight of all engineering activities and signature on all engineering documents.
John Faux	Project Engineer	\$160	Water resources engineer tasks
Jesse Herbert	Technical Staff - GIS/CAD/modeling	\$97.50	Technically competant to design and execute hydrologic calculations in a variety of software including GIS, AutoCad and excel

Nicholas F. Bonsignore, P.E.
Robert C. Wagner, P.E.
Paula J. Whealen
Henry S. Matsunaga

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Emily MacDonald
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James C. Hanson
Consulting Civil Engineer
A Corporation

FEE SCHEDULE

EFFECTIVE AUGUST 1, 2010

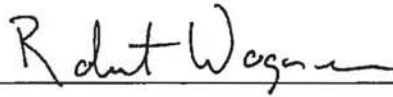
1. Personal Services of Principals & Supporting Services
 - a) Principals including Registered Civil Engineers and Water Right Specialist billed on an hourly rate in accordance with the Schedule of Fees attached hereto; for public hearings and court appearances requiring qualifications and services as expert witness and for assistance to attorneys during course of such hearings and depositions, to be billed at 1.5 times the regular hourly rate, plus transportation and subsistence expenses set forth under (2); Eight hour minimum to be billed for depositions, court appearances and administrative hearings.
 - b) Registered Civil Engineers, Sub-professional Engineers, Technicians and Drafters billed on an hourly rate in accordance with the Schedule of Fees attached hereto, plus transportation and subsistence expenses set forth under (2);
 - c) Special engineering, geotechnical services, testing, surveying and other similar services employed specifically for performance of work at direct invoice cost plus 15 percent.

2. Reimbursable Expenses
 - a) Transportation, direct out-of-pocket expense for public transportation, 75¢ per mile for private auto.
 - b) Subsistence, direct out-of-pocket expense;
 - c) Actual costs of reproduction, long-distance telephone tolls, and other actual expenses directly accruing from services authorized for performance including postage, or other similar supplies or expenses ordered specifically for and used or consumed in the performance of work plus 15 percent.

The foregoing compensation will include compensation for all general office secretarial services, supplies and overhead including office space required for performance of personal and supporting engineering services. Invoices for Personal and Supporting Services and Reimbursable Expenses will be submitted on a calendar month basis and are due and payable upon receipt.

All work performed will be considered as personal professional engineering and supporting services and will be performed and furnished as an independent contractor.

WAGNER & BONSIGNORE
CONSULTING CIVIL ENGINEERS
A CORPORATION



Robert C. Wagner, P.E.

SCHEDULE OF FEES

EFFECTIVE AUGUST 1, 2010

Principal Engineer	\$170 - \$225/hr.
Principal Scientist Geology Hydrology Fluvial Geomorphology	\$180 - \$200/hr.
Project Manager Water Rights Construction Management	\$150 - \$190/hr.
Water Right Specialist	\$100 - \$130/hr.
Project Engineer – Registered	\$125 - \$170/hr.
Staff Engineer	\$95 - \$120/hr.
Water Right Assistant	\$65 - \$100/hr.
Senior Technician	\$65 - \$100/hr.
Drafter/Graphics	\$50 - \$90/hr.
Clerical	\$45 - \$65/hr.

Wagner & Bonsignore

Consulting Civil Engineers, A Corporation

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Emily MacDonald
Ryan E. Stolfus

BRADLEY E. NEWTON, Ph.D., P.G. **PROFESSIONAL RESUME**

REGISTRATION:

Professional Geologist (California) # 8181

EDUCATION:

Ph.D., Hydrology, University of California at Santa Barbara, 2004

M.A., Geography, University of California at Santa Barbara, 1997

B.A., Geologic Sciences, University of California at Santa Barbara, 1991

EXPERIENCE:

Dr. Newton is a Professional Geologist. He obtained his Ph.D. in Surface Water Hydrology and is a principal scientist with 21 years experience in environmental consulting. Dr. Newton has demonstrated expertise in vadose zone hydrology, watershed hydrology, and hydrologic monitoring design and implementation. His expertise includes in-depth understanding of runoff generating processes, seepage through the subsurface, groundwater recharge, surface water routing, design and application of numerical models, geomorphologic and geologic mapping, vadose zone and aquifer monitoring design and implementation. Dr. Newton has testified to his opinion under oath during hearing and trial proceedings.

Dr. Newton assists clients in programmatic development. He has successfully managed many projects including; the conceptual development and implementation of a groundwater recharge facility and nature park, the development and implementation of hydrologic and water quality monitoring program, conducting corrective action for National Pollutant Discharge Elimination System (NPDES) surface discharge permit, preparing and implementing soil characterization work plan for 13-acre confidential aggregate mining site, supporting regulatory compliance and geotechnical instability risk management efforts, and providing advice on regulatory and operational issues, preparing and submitting annual reports to state and local regulatory agencies, as well as local community groups.

Dr. Newton is an experienced technical advisor for efforts related to water resource management and planning, hydrogeological assessments and investigations, resolution of water quality problems, and compliance with water quality and environmental standards. Dr.

2151 River Plaza Drive • Suite 100 • Sacramento, CA 95833-4133
Ph: 916-441-6850 or 916-448-2821 • Fax: 916-448-3866

Newton is a skilled facilitator, able to foster communication among diverse groups and stakeholders. He has strong organizational and analytical skills and a recognized ability to decipher and resolve problematic situations, including developing efficient, cost-effective solutions for projects competing with limited resources.

RECENT EXPERIENCE INCLUDES THE FOLLOWING:

- ◆ ***Water Rights Support, Los Angeles County:*** Technical advisor and Program Manager for the City of Palmdale, Ca, supporting the City in their application to the State Water Resources Control Board to appropriate water from surface water source.
- ◆ ***Litigation Support, Jackson, DeMarco, Tidus, and Peckenpaugh, San Luis Obispo County, California:*** Technical advisor supporting litigation relating to water supply.
- ◆ ***Technical Advisory Group Member:*** Participates as a voting member in a technical expert group and secretary to the Nipomo Mesa Management Area Technical Group pursuant to the Santa Maria Groundwater Basin Adjudication. Participated and authored Monitoring Program approved by the Court. Participated and authored the 2008 Annual Report and the 2009 Annual Report.
- ◆ ***Programmatic Development of Groundwater Recharge and Nature Park, Los Angeles County:*** Program Manager for the City of Palmdale, Ca, envisioned the conceptual model for a groundwater recharge and nature park project on the Amargosa Creek, creator of conceptual design, manager of the EIR for project, manages all technical analyses relating to water for the project.
- ◆ ***Identification and Estimation of Annual Water Production from Groundwater, San Bernardino County, California:*** Project designer and manager of team of consultants to identify and classify land use categories by inspection of aerial photography, compute the actual evapotranspiration from each land use category, estimate the annual production for each parcel determined to be subject to water use, and design custom ARC Tools to augment databases.
- ◆ ***Litigation Support, Richards Watson & Gershon, City of Corona, California:*** Project manager and technical lead to team of consultants to prepare hydrologic inventory supporting ground water right litigation.
- ◆ ***Hydrologic Monitoring and Water Quality Compliance, Private Coastal Residence, California:*** Managed project to remedy National Pollutant Discharge Elimination System (NPDES) surface discharge permit in violation of conducting water quality sampling and reporting. Prepared hydrogeologic history of site and successfully argued that condition of groundwater issuing to surface water was de minimis, and prepared and submitted annual and quarter-annual reports to state agency.
- ◆ ***Permitting, Compliance, and Hydrologic Monitoring, Private University, California:*** Manages team of consultants supporting regulatory compliance and geotechnical instability risk management efforts, including development and implementation of hydraulic monitoring plan, evaluation of geotechnical, water quality and other information, and advice on regulatory and operational issues, prepares and submits annual reports to state and local regulatory agencies, as well as local community groups. Conducts monthly monitoring of perched and regional

groundwater to track temporal and spatial changes to groundwater regimes and to assess how water use impacts historic flow regimes or exacerbates existing geotechnical instability. Developed water balance model to track irrigation, evapotranspiration, surface runoff, soil storage, and deep percolation. Provides cost-saving and compliance-advancing strategies and implementation projections to client, and develops long-term strategic planning as it pertains to changes in the legislative environment.

- ◆ ***Groundwater Characterization, Effluent Disposal Site, Basic Management Incorporated, Henderson Nevada:*** Participated on team that prepared and implemented hydrogeologic characterization work plan for 2,332-acre confidential chemical disposal site in Clark County, Nevada. Site consists primarily of former wastewater effluent ponds (now dry) and system of conveyance ditches used to transport industrial discharge into ponds. Primary constituent discharged was perchlorate. Scope of work included extensive intrusive field investigation, using multiple drilling techniques, to collect chemical and physical data, laboratory analysis of chemical and physical samples, entry and management of data in project geographic information system (GIS)/relational database, evaluation of data to support description of conceptual site model, and reporting of findings and recommendations.
- ◆ ***Water Supply Resource Facility Conceptual Design, Los Angeles County, California:*** Project designer and project manager of team of consultants to create a groundwater recharge facility and environmental mitigation site to utilize undelivered State Water Project water and improve the long-term water supply of the region.
- ◆ ***Litigation Support, Jackson, DeMarco, Tidus, and Peckenpaugh, Ventura County, California:*** Presented testimony as expert witness and technical advisor supporting litigation relating to levee failure and damage to real property.
- ◆ ***Regional Water Quality Control Board Compliance Document, San Bernardino County, California:*** Project Manager and author of compliance document to the RWQCB to demonstrate no negative impact of recharge water to the Prado Basin Management Zone.
- ◆ ***Litigation Support, Richards Watson & Gershon, San Bernardino County, California:*** Technical advisor supporting litigation relating to subterranean storm drain failure and damage to real property.
- ◆ ***Groundwater Basin Adjudication, Santa Maria County, California:*** Supporting expert witness by evaluating long-term sustainable yield of groundwater basin, interactions of surface water and groundwater, and estimating unimpaired flow of regional-scale rivers.
- ◆ ***Reclaimed Water Irrigation, Facilities Management Department, University of California, Santa Barbara:*** Designed, proposed, and implemented research resulting in guidance document for daily practice of irrigation with reclaimed water from sewage treatment plant. Reported findings and recommendations.
- ◆ ***Integrated Regional Groundwater Management Plan, San Bernardino County, California:*** Manages team of consultants supporting regional water-use management efforts and prepare final Integrate Regional Groundwater Management Plan (IRGMP), by initiating and preparing for a number of working sessions to bring about a common understanding of the regional issues, objectives, and water management strategies, and to formulate a framework for the IRGMP, which include: the development of future water demands based on project growth in

populations, changes in landuse, changes in water consumption patterns resulting from economic development, and demand management activities such as the implementation of Urban Water Management Plans; develop integrated water management strategies for the region; develop IRGMP implementation component; determine impacts and benefits of IRGMP; and prepare and review draft IRGMP for final IRGMP.

- ◆ ***Burn Dump Site Characterization, Ventura, California:*** Project manager on a focused site investigation of multi-use burn dump targeted for clean closure. Purpose of project is to document historic site usage, characterize material deposited, and estimate current volume of disposed material.
- ◆ ***Fate and Transport of Petroleum Product, Ventura County, California:*** Provided detailed spatial-temporal groundwater and contaminant characterization for litigation support. Effort resulted in favorable outcome for client.
- ◆ ***Petroleum Hydrocarbon Site Investigation, Santa Ynez, California:*** Led team to complete due diligence project for private landowner transactional support. Designed, executed, and reported investigation of previously buried fuel storage tank (UFT) that was suspected to have leaked petroleum fuel product into native soils.
- ◆ ***Watershed Management Plan, Southwest New Mexico Water Planning Region, Deming, New Mexico:*** Participated in preparing draft watershed management plan for Gila River, New Mexico.
- ◆ ***Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA):*** Designed and created mechanistic hydrologic hillslope model to address interaction of land use change and topography on hydrological functioning of Amazonia. Collected field observations and laboratory measurements. Analyzed empirical data.
- ◆ ***Hydrology of Amazon Basin, University of California at Santa Barbara:*** Performed research activities focusing on water balances and routing hydrology of Amazon basin at three spatial scales: hillslopes, mesoscale (~10,000 km²), and continental (~6,000,000 km²).
- ◆ ***Litigation Support, Jones Day Reavis Pogue, Los Angeles, California:*** Performed data analysis and organization for litigation to address groundwater and soil contamination by multiple constituents (PCBs, DNAPL, LNAPL, mercury, battery production byproducts, etc.). Source of contamination was multiple manufacturing processes operated by multiple entities.
- ◆ ***Watershed Study, Cold Spring Canyon, Montecito, California, University of California, Santa Barbara:*** Designed, managed, and implemented study of safe yield from coastal bedrock aquifer. Authored paper entitled *Safe Yield of a Bedrock Aquifer in the Santa Ynez Mountains*.
- ◆ ***Geothermal Exploration, Western United States:*** Field geologist for exploration of geothermal systems capable of producing commercial electricity, which included monitoring drilling operations, analyzing cuttings, describing lithology and producing lithologic well logs, monitoring temperature and gas (particularly H₂S and CO₂), and performed reservoir tests.

CONTINUING EDUCATION

Groundwater Management in California, 2005
OSHA 40-hour Health and Safety Training, 2005
RiverWare training course (CADSWES), 2004
Confined Space Entry Training and Lockout/Tagout, OSHA CFR 29, 1910.146 and 147, 2002
Radiation Safety and Nuclear Gauges, CPN Company, 1994
NLP Certified Practitioner, 1991

PUBLICATIONS AND PRESENTATION

- Newton, B.E. 2010. Mechanistic Hydrologic Hillslope Model, to be submitted to Water Resources Research. In preparation.
- Newton, B.E. 2004. Interactions of topography and landuse in the runoff response of mesoscale basins on the Brazilian craton. University of California at Santa Barbara. Dissertation. September 2004.
- Sobieraj, J.A., H. Elsenbeer, R. Marques, and B. Newton. 2002. Spatial variability of soil hydraulic conductivity along a tropical rainforest catena. *Geoderma*, vol 108, n 1-2, pp. 79-90, 2002.
- Sobieraj, J.A., H. Elsenbeer, R.M. Coelho, and B. Newton. 2001. Evaluation of Ksat and its controlling factors along a tropical rainforest catena. ASA-CSSA-SSSA Annual meeting - Sustaining earth and its people: Translating science into practice, Charlotte, North Carolina, October 21-25, 2001, p.334.
- Newton, B.E., T. Dunne, H. Elsenbeer, and J.M. Moraes. 1999. The effects of land-use on runoff generation for hillslopes on deeply weathered Precambrian basement rocks in the state of Rondonia, Brazil. Manaus99 International Symposium, Hydrological and Geochemical Processes in Large Scale River Basins, November 1999.
- Elsenbeer, H., B. Newton, T. Dunne, and J. Moraes. 1998. Soil hydraulic conductivities of latisols under pasture, forest and teak in Rondonia, Brazil. *Brazil, Hydrological Processes*, vol. 13, n. 9, pp. 1417-1422, 1998.
- Newton, B.E. 1997. Safe yield of a bedrock aquifer in the Santa Ynez Mountains. University of California at Santa Barbara. Master Thesis. June 1997.
- Newton, B.E., T. Dunne, and R.H. Shumway. 1996. Precipitation and evaporation in the Amazon Basin: Observations at a range of spatial and temporal scales. *EOS Transactions, AGU* 77(46), 1996.
- Newton, B.E. 1995. Invited Lecturer, Water in Santa Barbara, Scope, Sequence, and Coordination Summer Institute. University of California at Santa Barbara. July 1995.

Wagner & Bonsignore

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Robert C. Wagner, P.E.
Paula J. Whealen
Henry S. Matsunaga

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John Faux, P.E.
David Houston, P.E.
David P. Lounsbury, P.E.
Emily MacDonald
Ryan E. Stolfus

James C. Hanson
Consulting Civil Engineer
A Corporation

ROBERT C. WAGNER PROFESSIONAL RESUME

REGISTRATION:

Civil Engineer, California (License No. 52903)

EDUCATION:

B.S. Civil Engineering - California State University, Sacramento, CA - 1988

EXPERIENCE:

Wagner & Bonsignore, Consulting Civil Engineers, A Corporation - Sacramento, California
President - April 1998 to Present

- Water Resources Management, including Watermaster services, administration of court judgments and litigation support.
- Perform hydrology studies and water availability analysis for water storage and diversion projects.
- Acquisition, defense and administration of water rights.

James C. Hanson, Consulting Civil Engineer, A Corporation - Sacramento, California
Senior Engineer - May 1990 to April 1998

Water rights analysis, water production determinations, hydrologic analysis and land use classifications.

State Water Resources Control Board, Division of Water Rights - Sacramento, California
Assistant Civil Engineer - September 1988 to May 1990

Process water right applications pursuant to State Board policy and Title 23 of the California Code of Regulations.

RECENT EXPERIENCE INCLUDES THE FOLLOWING:

Provide engineering services for Chino Basin Water Conservation District, San Bernardino County in connection with storm water recharge in Chino Basin.

Watermaster Engineer for Orange County Water District; perform analysis of hydrologic and water quality data for the Santa Ana River Watershed for Water Year 2009-10; distinguish storm flow and base flow at Prado Dam and at Riverside Narrows, draft portions of the Watermaster's annual report to the Court.

Provide engineering services for Lake Alpine Water Company / Alpine County in connection with the State Water Resources Control Board water right hearing and hydrology of South Fork Stanislaus River for State Filed Application 5648.

Provide engineering services on behalf of City of Sacramento in connection with the Water Resources of the American River.

Provide engineering services on behalf of City of Ukiah in connection with water rights and hydrology of the Russian River, Mendocino County.

Provide engineering services on behalf of Sonoma County Water Agency in connection with development of agricultural reuse project for use of treated wastewater for vineyard irrigation.

Provide engineering services in connection with analysis of water production and hydrologic data for development of water use agreements for over 100 growers in the Dry Creek Valley in Sonoma County.

Provide engineering services for City of Santa Maria in connection with the hydrologic resources of the Santa Maria Groundwater Basin.

Provide engineering services in the matter of Bonadiman v. Evans in San Bernardino Superior Court on behalf of prevailing party Evans. Research and documentation of water development and water right acquisition dating to 1883.

Provide engineering services for The Wildlands Conservancy in connection with water resource matters for extensive land holdings in San Bernardino and Kern Counties.

Provide engineering services for Wells Fargo Bank in connection with the analysis of water rights and water availability on the Kern River.

Watermaster Engineer for the Mojave Basin Area Watermaster in the matter of the Mojave River Adjudication, City of Barstow, et al, vs. City of Adelanto, et al. Collection and analysis of data for preparation of Annual Watermaster Report, including groundwater production and hydrology studies of the Mojave River System and groundwater basin in connection with storm flow base flow separation determination and the analysis of water transfers and land use changes. Preparation of Annual Watermaster report.

Provide engineering services on behalf of the Mojave Water Agency in connection with Mojave Basin Area Adjudication. Coordinate activities for professional and subprofessional staff for collection, analysis and verification of water production records for approximately 7,000 wells in the Mojave River Basin. Participate in meetings of the Joint Engineer-Attorney Drafting Committee formed to negotiate and draft the Stipulated Judgment. Participation in the drafting and ongoing revisions of the Watermaster Rules and Regulations.

Provide engineering services in connection with engineering services for the Warren Valley Basin Watermaster, San Bernardino County. Analysis of groundwater production records and basin hydrology for preparation of Annual Watermaster Report.

Provide engineering services in connection with work for East Valley Water District, San Bernardino County, regarding the analysis of surface and subsurface hydrology of the Santa Ana River and the availability of water for the Seven Oaks Dam Project and fully appropriated listing of the Santa Ana River.

Provide engineering services on behalf of Kirkwood Associates before the State Water Resources Control Board in the matter of South Fork American River Hearings, October 1995. Analysis of the South Fork American River and Caples Creek hydrology in connection with same.

Provide engineering services in connection with work for High Desert Water District, San Bernardino County, regarding the analysis of water quality and ground water elevation data for monitoring the potential impacts of ground water extractions from the Ames Valley Basin.

Provide engineering services in connection with work for Hidden Valley Lake Community Services District, Lake County, regarding the hydrologic analysis of Upper Putah Creek Watershed and the Coyote Valley groundwater basin in support of amendments to fully appropriated stream status and applications to appropriate surface and subsurface water from Putah Creek; continued monitoring of the Coyote Valley groundwater basin in connection with administration of water rights.

CONTINUING EDUCATION

“California Environmental Quality Act Update”, University of California, Davis - February 1992

“California Water Law”, University of California, Davis - November 1989 to January 1990

“Understanding Wetlands and 404 Permitting”, ASCE July 1997

“Fundamentals of Water Rights and Colorado River Issues”, University of Nevada, Las Vegas
January 1998

“Fundamentals of Groundwater Hydrology”, UC Berkeley Extension, July 2002

Wagner & Bonsignore

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David P. Lounsbury, P.E.
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Ryan E. Stolfus

James C. Hanson
Consulting Civil Engineer
A Corporation

JOHN C. FAUX PROFESSIONAL RESUME

REGISTRATION:

Professional Engineer, California (License No. 72064)
Professional Engineer, Colorado (License No. 27009)

EDUCATION:

B.S. Watershed Science – Utah State University – 1979
M.S. Civil Engineering: Water Resources Planning and Management – 1983
M.S. Agricultural and Resource Economics – 1996

EXPERIENCE:

Wagner & Bonsignore, Consulting Civil Engineers, A Corporation - Sacramento, California

Senior Water Resources Engineer – October 2006 to Present

- Analysis of water availability for water right applications.
- Analysis of water supply firm yield.

Surface Water Resources, Inc. - Sacramento, California

Senior Water Resources Engineer - May 2000 to October 2006

- Modeling of water resource systems to support environmental impact analyses of water supply projects.
- Analysis of reservoir operations for hydropower and flood control.

Bookman-Edmonston Engineers, Inc. - Sacramento, California

Senior Water Resources Engineer - February 1988 to May 2000

- Expert witness support regarding irrigation operations and flood control operations.

Oregon State University, Department of Agricultural and Resource Economics – Corvallis, Oregon

Graduate Research Assistant – September 1994 to September 1996

- Statistical analysis to determine economic value of irrigation supply.

Rocky Mountain Consultants, Inc. – Longmont, Colorado

Senior Water Resources Engineer – June 1986 to May 1994

- Hydrological analyses supporting permanent change of use of water rights.

RECENT EXPERIENCE INCLUDES THE FOLLOWING:

- *Brooktrails Township Community Services District, Mendocino County:* Evaluation of physical water supply to assess firm yield.
- *City of Riverside, CA:* Hydrologic evaluation to support expert testimony for State Water Resources Control Board hearing on Santa Ana River.
- *Various Applicants for Water Rights in Sonoma, Napa and Mendocino Counties:* Evaluation of hydrology and water right operations to assess water availability for appropriation.
- *Various Applicants for Water Rights in Sonoma, Napa and Mendocino Counties:* Analysis of scientific procedures underlying proposals for state policy on instream flow protection for salmonids.
- *Santa Fe Irrigation District and San Dieguito Water District:* Development of alternate operating rules and computer model to evaluate re-operation of Lake Hodges.
- *Sacramento Area Flood Control Agency:* Evaluation of Folsom Reservoir operations to assess value of hydropower foregone due to flood control operations.
- *U.S. Bureau of Reclamation, Mid-Pacific Region:* Hydrological modeling and analyses to assess environmental impacts associated with American River Basin Cumulative actions.
- *Truckee-Carson Irrigation District:* Analyses of irrigation district operations to support expert testimony.
- *American River Flood Control District:* Analyses of flood control district operations to support expert testimony.
- *Malheur County, Oregon:* Statistical analysis to derive implicit market price of irrigation supply.
- *City of Central, Colorado:* Estimate of runoff available to proposed water supply reservoir.
- *City of Thornton, Colorado:* Hydrological and water right analyses to support expert testimony leading to permanent transfer of water supply from 10,000 irrigated acres to municipal use.
- *City of Lafayette, Colorado:* Wrote manual describing optimal operation of municipal water right portfolio.
- *U.S. Department of Justice:* Lead consultant team in participation in federal relicensing of Cushman Reservoir Hydroelectric Project.

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Consulting Civil Engineers, A Corporation

PEER-REVIEWED PUBLICATIONS:

Faux, J. and G. M. Perry. 1999. "Estimating Irrigation Water Value Using Hedonic Price Analysis: A Case Study in Malheur County, Oregon." Land Economics 75(3).

Faux, J. C., Labadie, J. W. and R. C. Lazaro. 1986. "Improving Performance of Irrigation/Hydro Projects." Journal of Water Resources Planning and Management 112(2).

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Emily MacDonald
Ryan E. Stolfus

James C. Hanson
Consulting Civil Engineer
A Corporation

JESSE HERBERT PROFESSIONAL RESUME

EDUCATION:

2005-2009 American River College, Sacramento Ca
Geographics Information System, Associate of Science

2003-2005 Santa Rosa Junior College, Santa Rosa
Drafting and Design in Auto CAD

EXPERIENCE:

Wagner & Bonsignore Consulting Civil Engineers, A Corporation – Sacramento, CA
GIS Analyst / CAD Drafter - September 2005 to Present

- Extensive knowledge in AutoCAD Civil 3D and ESRI ArcGIS software
- Design and draft construction plans
- Collect, compile, analyze, organize, and integrate project data and databases
- Compilation and analysis of hydrologic data and Streamflow records for issues related to water right and water supply planning

RECENT EXPERIENCE INCLUDES THE FOLLOWING:

Chino Basin Water Conservation District: Create and manage database of project specific features for analyses and visualization. Evaluate surface models to identify depressions that could potentially create catchment basins; to be used in future analysis of water transmission and supply to storm water recharge basins. Identify and catalog potential sites for storm water recharge basins. Draft recharge enhancement plans for various district recharge facilities for 2010 Recharge Master Plan Update.

Langtry Estate: Create and manage database of project specific features for analyses and visualization. Identify site suitability for vineyard development by analyzing topography and evaluating required setbacks from wetlands, woodlands, and jurisdictional waters and channels.

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Cordua Irrigation District: Hydrologic evaluation of Yuba River to estimate the extent of diversions that could have been made under various entities' water rights downstream of Englebright Reservoir senior to Yuba County Water Agency's rights.

Various Applicants for Water Rights in Sonoma, Napa and Mendocino Counties: Evaluation of hydrology and water right operations to assess water availability for appropriation.

Mojave: Preparation of hydrograph for stormflow base flow separation for Mojave River at Lower Narrows.

CONTINUING EDUCATION

"AutoCAD 2011 Software Training," Delta Engineering Systems – July 2010

"GIS and Mapping Software," ESRI – February 2009

"Harnessing Civil 3D Training," Delta Engineering Systems – September 2007

TO: BOARD OF DIRECTORS

FROM: DON SPAGNOLO
GENERAL MANAGER 

DATE: SEPTEMBER 3, 2010

**AGENDA ITEM
E-3**

SEPTEMBER 8, 2010

CONSIDER DRAFT WATER RATE STRUCTURE

ITEM

Consider Draft Water Rate Structure [RECEIVE REPORT AND PROVIDE DIRECTION TO STAFF].

BACKGROUND

On August 24, 2010, the Board of Directors accepted the Water Fund Financial Analysis/Rate Study and directed Staff to present the proposed rate structures at the September 8, 2010 Board Meeting.

Mr. Tuckfield will present the attached Draft Water Rate Structure Report to the Board of Directors. After reviewing the alternatives presented for all classes of customers, the Board of Directors will need to provide direction to Staff to finalize the report.

At the September 22, 2010 Board Meeting the Board will be asked to finalize the Report and initiate the Prop 218 proceedings. If the appropriate action is taken, the Prop 218 notices will be mailed by September 30 and the Prop 218 Hearing will be set for November 17, 2010.

FISCAL IMPACT

The last water rate increase went into effect on January 1, 2009. The 2010-2011 Fiscal Year Budget for the Water Fund has a deficit and Reserves are used to balance the budget. A rate increase is necessary to balance the budget.

RECOMMENDATION

Staff recommends that your Honorable Board receive the draft report and provide direction to Staff.

ATTACHMENTS

- Draft Rate Structures prepared by Tuckfield & Associates

September 2, 2010

Mr. Don Spagnolo
General Manager
Nipomo Community Services District
148 South Wilson Street
Nipomo, CA 93444

Dear Mr. Spagnolo:

In accordance with our scope of work, this report presents the findings and results of our water rate analysis for designing water rate structures and rates for the Nipomo Community Services District (District). This report builds upon the assumptions and projections from our previous report of August 4, 2010 regarding financial planning. In that report, the Board of Directors selected Option 2 as the Water Fund financial plan and those findings and results have been incorporated herein for the design of water rates.

Upon conducting the water rate analysis and further reviewing of the financial plan, it was determined that Litigation Charge revenue should be stated separately in the financial plan, as this source of revenue, and its associated fixed charges, will remain constant over the study period. Therefore, the selected financial plan, Option 2, has been restated and is presented in Appendix A. The revised plan shows that the revenue increases required are 13 percent annually, 0.5 percent higher annually than presented in the August 4, 2010 because Litigation Charge revenue and charges are not projected to increase.

Cost of Service Methodology

The overall water system was evaluated to determine a methodology for which to design rates. The District has less than 4,500 accounts with non-residential customers making up about 4 percent of those accounts lending support to using a commodity-demand method of cost allocation.

In the commodity-demand method, revenue requirements are assigned as commodity costs, capacity costs, and customer costs. Commodity costs are characterized by those costs that vary with the quantity of water produced, such as pumping power, chemicals, purchased water, and other costs. Demand costs are generally those costs associated with providing facilities to meet peak rates of use. Such costs may include all transmission and distribution system pumping and all treatment, transmission, and distribution mains and storage facilities that are sized to meet peak demands. Customer costs include those incurred to serve the customer, regardless of the amount of water consumed. These costs include meter and service maintenance, meter reading, billing, collecting, and accounting costs. The cost of service analysis resulted in an allocation of 25 to 30 percent of costs to be recovered from fixed charges with the remaining 70-75 percent of costs recovered from commodity rates. This result is similar to the existing rate structure.

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Water Rate Structures and Rates

A water rate analysis has been conducted that includes the design of residential and non-residential water rate structures and rates. The structures have been designed using the financial plan presented in Appendix A. The rate structures analyzed and discussed herein include the following.

Residential

- Four-block rate structure

Non-Residential

- Alternative 1 - Commercial Two-Block, Irrigation Two-Block, All Other Uniform Rate
- Alternative 2 - Uniform Rate for all non-residential

Fixed Charge Component

A review and analysis was conducted of the current fixed charges of the District. The fixed charges are established recognizing meter capacity ratios. Revenue generated from the fixed charges is approximately equal to 30 percent of the total water sales revenue, including the Litigation Charge revenue. Because the current fixed charges reflect industry practice, it is proposed that future charges be established by increasing the current fixed charges by the annual percentages determined in the financial plan in Appendix A. However, for the first year increase, it is proposed that the fixed charges remain at their current levels. This will reduce the percentage of fixed charge revenue to total water sales revenue to approximately 25 percent. Increasing the fixed charges in this manner will establish fixed charge revenue that follows averages for the state of California and follow guidelines of the California Urban Water Conservation Council (CUWCC) for fixed charges. Table 1 presents the proposed fixed charges for the each year of the study period. Fire protection fixed charges are presented in Appendix D.

Variable Rate Component

Water service rates are typically composed of a fixed charge and a volume charge (variable charge). All costs not recovered in the fixed charge are recovered in the volume charge. The volume charge may be a uniform charge per unit of consumption, or established as a series of block rates, where a block of water is a defined amount of water consumption, such as zero to 500 cubic feet (0 to 5 Ccf).

Rate blocks are designed based on an analysis of the bills rendered by customer classification for various levels of consumption. This analysis includes tabulating the number of bills and their consumption, then developing cumulative consumption of bills rendered at each consumption level.

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Table 1
Nipomo Community Services District
Water Utility
Proposed Bi-monthly Water Fixed Charges

Meter Size/ Litigation Charge	Existing Charges	Effective January 1 of each Fiscal Year				
		2010-11	2011-12	2012-13	2013-14	2014-15
1 inch and less	\$24.52	\$24.52	\$27.71	\$31.31	\$35.38	\$39.98
Litigation Charge	\$6.32	\$6.32	\$6.32	\$6.32	\$6.32	\$6.32
1 1/2 inch	\$69.61	\$69.61	\$78.66	\$88.89	\$100.45	\$113.51
Litigation Charge	\$14.36	\$14.36	\$14.36	\$14.36	\$14.36	\$14.36
2 inch	\$110.25	\$110.25	\$124.58	\$140.78	\$159.08	\$179.76
Litigation Charge	\$19.92	\$19.92	\$19.92	\$19.92	\$19.92	\$19.92
3 inch	\$205.15	\$205.15	\$231.82	\$261.96	\$296.01	\$334.49
Litigation Charge	\$27.92	\$27.92	\$27.92	\$27.92	\$27.92	\$27.92
4 inch	\$340.68	\$340.68	\$384.97	\$435.02	\$491.57	\$555.47
Litigation Charge	\$36.00	\$36.00	\$36.00	\$36.00	\$36.00	\$36.00
6 inch	\$679.22	\$679.22	\$767.52	\$867.30	\$980.05	\$1,107.46
Litigation Charge	\$59.58	\$59.58	\$59.58	\$59.58	\$59.58	\$59.58
8 inch	\$1,085.63	\$1,085.63	\$1,226.76	\$1,386.24	\$1,566.45	\$1,770.09
Litigation Charge	\$68.08	\$68.08	\$68.08	\$68.08	\$68.08	\$68.08

The result of this tabulation is the determination of the percentage of the total water volume that is consumed in each block, allowing consumption curves to be drawn to illustrate usage patterns. Such curves allow pricing to be established for various rate blocks and the determination of revenue impacts from such pricing.

A bill tabulation and analysis was performed for the District's customer classifications using 5 year's of historical information from billing system records. From the tabulation, charts showing the distribution of bills by their consumption level can be developed. These are presented in Appendix B for the single family and multifamily classifications. Additionally, several findings can be drawn from the bill tabulation and analysis that include the following.

- Approximately 82 percent of the water consumed is related to residential customers (single-family, multifamily).
- The average bi-monthly consumption of a single-family residential customer is 40 Ccf.
- The average bi-monthly consumption of a multifamily dwelling unit is 12 Ccf.
- The average bi-monthly water consumption of the commercial classification is 60 Ccf.
- Commercial accounts consist of less than 3 percent of the total accounts.
- Irrigation sales volume represents approximately 13 percent of total water sales volume.

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Also from the tabulation, customer classification usage patterns were drawn and evaluated and are presented in Appendix C. Figure C-1 shows consumption patterns of the various customer classifications of the District. Review of all the curves indicates that it is appropriate to recognize these as separate classes, because of the wide separation of the curves from one another.

The curve for single family customers exhibits a typical consumption pattern for this classification. The multifamily curve has been determined on an individual dwelling unit basis and displays a more uniform use per unit than single family. These conclusions are also supported by the charts in Appendix B.

Residential Rate Structures

In September of 2009, the Board of Directors selected a four-block variable rate structure for each of the single family and multifamily classifications. This four-block rate structure has been updated and results in similar block break points. Water prices within each block have been modified, however, and are established recognizing a reasonable escalation in pricing that reflects water conservation practice.

The current two-block residential rate structure is designed such that the first block is set at the average water use of single family customers. The findings of the bill tabulation analysis confirmed that 40 Ccf is the average for single family while the analysis determined that 12 Ccf is the average for multifamily. The price differential from the first to the second block is 170 percent. While a two-block rate structure is adequate for water conservation, it does not necessarily address excess use that may occur in the top of the consumption curve.

The proposed four-block residential structure is established with a first block that corresponds to average indoor water consumption, to provide a signal of when an average residential customer may be starting to use water for outdoor uses. The average indoor water consumption was determined using water billing information from the months of December through March.

The second block is designed such that the block break point is set at the average water consumption for each of the residential classifications. The fourth block is established to capture slightly less than 10 percent of the highest water usage. The highest block is typically established to capture 80 to 90 percent of the top water consumption. The third block captures all remaining use. Prices for the four-block rate structure have been set to increase by 115 percent, 175 percent, and 300 percent of the first block price. The third block price reflects the cost of supplemental water including operation and maintenance costs. Table 2 presents the proposed residential water rate structure with a comparison to the existing structure.

The multifamily rate structure presented has been established on an individual dwelling unit basis so as to develop rates that places multifamily consumption on a similar basis as single family customers. For multifamily customers that have one meter serving multiple units, it is necessary to multiply the number of dwelling units on the meter by the block rate break points, then applying the usage through the blocks. This effectively charges each dwelling unit the average use per unit of the water consumed through the meter. The District may need to program the billing system to perform this task.

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Table 2
Nipomo Community Services District
Water Utility
Proposed Residential Water Consumption Rate Structure ⁽¹⁾

Customer Classification	Rate Block	Approx # of DU's in Block	Approx % Consump in Block	Increase Over First Rate Block	Proposed Rates	Existing Rates
Single Family						
<u>Existing Structure</u>						
	0 to 40 Ccf	2,554	66.0%			\$1.64
	Over 40 Ccf	1,101	34.0%	170%		\$2.80
<u>Proposed 4 Block Structure</u>						
	0 to 24 Ccf	1,671	47.1%		\$1.80	
	25 to 40 Ccf	883	18.8%	115%	\$2.07	
	41 to 100 Ccf	923	24.5%	175%	\$3.15	
	Over 100 Ccf	178	9.5%	300%	\$5.40	
Multifamily						
<u>Existing Structure</u>						
	All Consumption	966	100.0%			\$2.06
<u>Proposed 4 Block Structure (per dwelling unit)</u>						
	0 to 8 Ccf	412	52.8%		\$1.80	
	9 to 12 Ccf	183	17.3%	115%	\$2.07	
	13 to 25 Ccf	309	20.2%	175%	\$3.15	
	Over 25 Ccf	63	9.8%	300%	\$5.40	

⁽¹⁾ Does not include fixed charges.

Table 3 presents the proposed future residential consumption rates for each year of the study period. The proposed consumption rates increase at the percentages identified in the financial plan in Appendix A, beginning with FY 2011-12.

Non-Residential Rate Structures

Two rate structures have been designed for the non-residential classification consisting of a two-block rate structure (Alternative 1) and a uniform rate structure (Alternative 2). The District currently has a uniform rate structure in place for all non-residential customers, which is common for this class. It is a practical rate for these customers, especially when there is a coordinated effort to place irrigation use on a separate meter.

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Table 3

Nipomo Community Services District

Water Utility

Proposed Residential Water Consumption Rates ^[1]

Customer		Existing	Effective January 1 of each Fiscal Year				
Classification	Rate Block	Rates	2010-11	2011-12	2012-13	2013-14	2014-15
Single Family							
<u>Existing Structure</u>							
	0 to 40 Ccf	\$1.64					
	Over 40 Ccf	\$2.80					
<u>Proposed 4 Block Structure</u>							
	0 to 24 Ccf		\$1.80	\$2.03	\$2.29	\$2.59	\$2.93
	25 to 40 Ccf		\$2.07	\$2.34	\$2.64	\$2.98	\$3.37
	41 to 100 Ccf		\$3.15	\$3.56	\$4.02	\$4.54	\$5.13
	Over 100 Ccf		\$5.40	\$6.10	\$6.89	\$7.79	\$8.80
Multifamily							
<u>Existing Structure</u>							
	All Consumption	\$2.06					
<u>Proposed 4 Block Structure (per dwelling unit)</u>							
	0 to 8 Ccf		\$1.80	\$2.03	\$2.29	\$2.59	\$2.93
	9 to 12 Ccf		\$2.07	\$2.34	\$2.64	\$2.98	\$3.37
	13 to 25 Ccf		\$3.15	\$3.56	\$4.02	\$4.54	\$5.13
	Over 25 Ccf		\$5.40	\$6.10	\$6.89	\$7.79	\$8.80

^[1] Does not include fixed charges.

Alternative 1

Commercial Classification

Block rate structures are generally not appropriate for Commercial customers because of the disparity of use within this classification. Exploring this type of structure for the District's Commercial class included an analysis of the commercial use by meter size. Figure C-2 in Appendix C shows this wide range of the use, illustrated by the consumption patterns. For example, if a block rate structure were designed that applied to all Commercial customers with a block break point set at the average use of 60 Ccf, from Figure B-2, those with a 1½ inch meter would have nearly 80 percent of their use over 60 Ccf and would be unfairly penalized. Customers with a ¾ inch meter would have consumed nearly 90 percent of their use by the block break point, and would seldom be over the first block. This is an example of why block rate structures that apply to all Commercial customers are rarely used.

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However, to design an equitable Commercial block rate structure requires the use of individual block rates for each Commercial meter size. This analysis has been completed and a two-block rate structure has been designed that is equated to the residential classifications. The first block is set at the average consumption for that individual meter size, with a second block that captures all remaining use. The Commercial rate structure and pricing is presented in Table 4.

Irrigation Classification

Alternative 1 also recognizes the Irrigation classification separately. The Irrigation class is generally recognized by the relatively high demands it places on the water system, from landscape systems, parks, and other uses. Following a similar exercise that was performed for the Commercial classification, Figure C-3 shows the consumption patterns of the Irrigation classification by meter size. The consumption patterns indicate a similar wide separation among the meter sizes as was found in the Commercial classification.

Inspection of Figure C-3 also indicates that several of the meter sizes could be grouped because of the similarities in the consumption patterns. From Figure C-3, the 5/8 inch and 1 inch meter sizes exhibit similar use patterns, as does the 1 1/2 inch and 2 inch meter sizes, and similarly between the 3 inch and 4 inch meters. The Irrigation two-block rate structure is designed by grouping the larger meter sizes and by establishing the first block at the average consumption of the meters. The Irrigation rate structure and pricing is presented in Table 4.

All other non-residential customers are charged at the uniform rate, also presented in Table 4.

Alternative 2

Alternative 2 is designed such that all non-residential consumption is charged at the same uniform rate. This uniform rate could also be applied to all customers and achieve the annual revenue targets for the financial plan in Appendix A. The uniform rate is presented in Table 4 listed under Alternative 2.

Table 5 presents the proposed future non-residential consumption rates for each year of the study period. The proposed consumption rates increase at the percentages identified in the financial plan in Appendix A, beginning with FY 2011-12 for both Alternative 1 and 2.

Example Bills

Tables 6 and 7 present example bi-monthly bills of the residential and the two non-residential water rate structures and pricing, respectively, for the January 1, 2011 increase. The non-residential block rate structure is presented as Alternative 1 while the uniform structure is presented as Alternative 2.

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Table 4
Nipomo Community Services District
Water Utility
Proposed Non-residential Water Consumption Rate Structure ^[1]

Customer Classification	Meter Size	Rate Block	Approx Customers in Block	Approx % Consump in Block	Increase Over First Rate Block	Proposed Rates	Existing Uniform Rates
Alternative 1:							
Commercial							
5/8" Meter		0 to 35	19	58.7%		\$2.07	\$2.06
		Over 35	9	41.3%	152%	\$3.15	\$2.06
3/4" Meter		0 to 50	0	77.8%		\$2.07	\$2.06
		Over 50	1	22.2%	152%	\$3.15	\$2.06
1" Meter		0 to 55	32	50.9%		\$2.07	\$2.06
		Over 55	9	49.1%	152%	\$3.15	\$2.06
1 1/2" Meter		0 to 290	13	63.9%		\$2.07	\$2.06
		Over 290	1	36.1%	152%	\$3.15	\$2.06
2" Meter		0 to 165	6	70.3%		\$2.07	\$2.06
		Over 165	3	29.7%	152%	\$3.15	\$2.06
3" Meter		0 to 82	1	75.3%		\$2.07	\$2.06
		Over 82	0	24.7%	152%	\$3.15	\$2.06
4" Meter		0 to 25	0	73.6%		\$2.07	\$2.06
		Over 25	1	26.4%	152%	\$3.15	\$2.06
Irrigation							
5/8" Meter		0 to 50	6	49.7%		\$2.07	\$2.06
		Over 50	2	50.3%	152%	\$3.15	\$2.06
1" Meter		0 to 75	34	53.3%		\$2.07	\$2.06
		Over 75	20	46.7%	152%	\$3.15	\$2.06
1 1/2" Meter		0 to 350	15	63.7%		\$2.07	\$2.06
		Over 350	8	36.3%	152%	\$3.15	\$2.06
2" Meter		0 to 350	0	57.9%		\$2.07	\$2.06
		Over 350	5	42.1%	152%	\$3.15	\$2.06
3" Meter		0 to 3000	0	64.4%		\$2.07	\$2.06
		Over 3000	1	35.6%	152%	\$3.15	\$2.06
4" Meter		0 to 3000	0	77.3%		\$2.07	\$2.06
		Over 3000	1	22.7%	152%	\$3.15	\$2.06
Agriculture						\$2.40	\$2.06
All Other						\$2.40	\$2.06
Alternative 2:							
All Non-residential							
	All Other					\$2.40	\$2.06

^[1] Does not include fixed charges.

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Table 5
Nipomo Community Services District
Water Utility
Proposed Non-residential Water Consumption Rates ^[1]

Customer			Existing Rates	Effective January 1 of each Fiscal Year				
Classification	Meter Size	Rate Block		2010-11	2011-12	2012-13	2013-14	2014-15
Alternative 1:								
Commercial								
5/8" Meter	0 to 35	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 35	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
3/4" Meter	0 to 50	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 50	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
1" Meter	0 to 55	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 55	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
1 1/2" Meter	0 to 290	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 290	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
2" Meter	0 to 165	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 165	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
3" Meter	0 to 82	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 82	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
4" Meter	0 to 25	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 25	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
Irrigation								
5/8" Meter	0 to 50	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 50	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
1" Meter	0 to 75	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 75	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
1 1/2" Meter	0 to 350	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 350	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
2" Meter	0 to 350	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 350	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
3" Meter	0 to 3000	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 3000	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
4" Meter	0 to 290	\$2.06	\$2.07	\$2.34	\$2.64	\$2.98	\$3.37	
	Over 290	\$2.06	\$3.15	\$3.56	\$4.02	\$4.54	\$5.13	
Agriculture		\$2.06	\$2.40	\$2.71	\$3.06	\$3.46	\$3.91	
All Other		\$2.06	\$2.40	\$2.71	\$3.06	\$3.46	\$3.91	
Alternative 2:								
All Non-residential								
	All Other		\$2.06	\$2.40	\$2.71	\$3.06	\$3.46	\$3.91

^[1] Does not include fixed charges.

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Table 6
Nipomo Community Services District
Water Utility
Example Residential Bi-monthly Water Bills ^[1]

Customer Classification	Consumption Ccf	Existing Rates	Proposed		Percent Difference
			4 Block Rates	Difference	
Single Family 5/8" meter	0	\$24.52	\$24.52	\$0.00	0.0%
	5	\$32.72	\$33.52	\$0.80	2.4%
	10	\$40.92	\$42.52	\$1.60	3.9%
	20	\$57.32	\$60.52	\$3.20	5.6%
	30	\$73.72	\$80.15	\$6.43	8.7%
	40	\$90.12	\$100.88	\$10.76	11.9%
	50	\$118.12	\$132.38	\$14.26	12.1%
	60	\$146.12	\$163.88	\$17.76	12.2%
	70	\$174.12	\$195.38	\$21.26	12.2%
	80	\$202.12	\$226.88	\$24.76	12.2%
	90	\$230.12	\$258.38	\$28.26	12.3%
	100	\$258.12	\$289.88	\$31.76	12.3%
	110	\$286.12	\$343.88	\$57.76	20.2%
	120	\$314.12	\$397.88	\$83.76	26.7%
	130	\$342.12	\$451.88	\$109.76	32.1%
	140	\$370.12	\$505.88	\$135.76	36.7%
150	\$398.12	\$559.88	\$161.76	40.6%	
200	\$538.12	\$829.88	\$291.76	54.2%	
Multifamily 1" meter 4 Units	0	\$24.52	\$24.52	\$0.00	0.0%
	20	\$65.72	\$60.52	(\$5.20)	-7.9%
	40	\$106.92	\$98.70	(\$8.22)	-7.7%
	48	\$123.40	\$115.28	(\$8.12)	-6.6%
	50	\$127.52	\$127.88	\$0.36	0.3%
	100	\$230.52	\$279.08	\$48.56	21.1%
150	\$333.52	\$559.88	\$226.36	67.9%	

^[1] Includes both fixed and consumption (variable) charges.

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Table 7

Nipomo Community Services District

Water Utility

Example Non-residential Bi-monthly Water Bills ^[1]

Customer Classification	Consump	Existing Rates	Alternative 1			Alternative 2			
			Commercial 2 Block	Irrigation 2 Block	Percent Difference	Uniform Rate	Percent Difference	Percent Difference	
Ccf									
Commercial									
1" Meter	0	\$24.52	\$24.52	\$0.00	0.0%	\$24.52	\$0.00	0.0%	
	20	\$65.72	\$65.97	\$0.25	0.4%	\$72.52	\$6.80	10.3%	
	40	\$106.92	\$107.41	\$0.49	0.5%	\$120.52	\$13.60	12.7%	
	60	\$148.12	\$154.25	\$6.13	4.1%	\$168.52	\$20.40	13.8%	
	80	\$189.32	\$217.25	\$27.93	14.8%	\$216.52	\$27.20	14.4%	
	100	\$230.52	\$280.25	\$49.73	21.6%	\$264.52	\$34.00	14.7%	
	150	\$333.52	\$437.75	\$104.23	31.3%	\$384.52	\$51.00	15.3%	
	200	\$436.52	\$595.25	\$158.73	36.4%	\$504.52	\$68.00	15.6%	
	250	\$539.52	\$752.75	\$213.23	39.5%	\$624.52	\$85.00	15.8%	
	300	\$642.52	\$910.25	\$267.73	41.7%	\$744.52	\$102.00	15.9%	
	350	\$745.52	\$1,067.75	\$322.23	43.2%	\$864.52	\$119.00	16.0%	
	400	\$848.52	\$1,225.25	\$376.73	44.4%	\$984.52	\$136.00	16.0%	
	500	\$1,054.52	\$1,540.25	\$485.73	46.1%	\$1,224.52	\$170.00	16.1%	
Irrigation									
1 1/2" Meter	0	\$69.61		\$69.61	\$0.00	0.0%	\$69.61	\$0.00	0.0%
	50	\$172.61		\$173.23	\$0.62	0.4%	\$189.61	\$17.00	9.8%
	100	\$275.61		\$276.85	\$1.24	0.4%	\$309.61	\$34.00	12.3%
	150	\$378.61		\$380.47	\$1.86	0.5%	\$429.61	\$51.00	13.5%
	200	\$481.61		\$484.08	\$2.47	0.5%	\$549.61	\$68.00	14.1%
	250	\$584.61		\$587.70	\$3.09	0.5%	\$669.61	\$85.00	14.5%
	300	\$687.61		\$691.32	\$3.71	0.5%	\$789.61	\$102.00	14.8%
	350	\$790.61		\$794.94	\$4.33	0.5%	\$909.61	\$119.00	15.1%
	400	\$893.61		\$1,064.94	\$171.33	19.2%	\$1,029.61	\$136.00	15.2%
	450	\$996.61		\$1,334.94	\$338.33	33.9%	\$1,149.61	\$153.00	15.4%
	500	\$1,099.61		\$1,604.94	\$505.33	46.0%	\$1,269.61	\$170.00	15.5%
	550	\$1,202.61		\$1,874.94	\$672.33	55.9%	\$1,389.61	\$187.00	15.5%
All Other Non-residential									
1" Meter	0	\$24.52		\$24.52	\$0.00	0.0%	\$24.52	\$0.00	0.0%
	100	\$230.52		\$264.52	\$34.00	14.7%	\$264.52	\$34.00	14.7%
	200	\$436.52		\$504.52	\$68.00	15.6%	\$504.52	\$68.00	15.6%
	300	\$642.52		\$744.52	\$102.00	15.9%	\$744.52	\$102.00	15.9%
	400	\$848.52		\$984.52	\$136.00	16.0%	\$984.52	\$136.00	16.0%
	500	\$1,054.52		\$1,224.52	\$170.00	16.1%	\$1,224.52	\$170.00	16.1%

^[1] Includes both fixed and consumption (variable) charges.

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Table 6 indicates that for the January 1, 2011 increase, the bi-monthly water bill for the average single family customer consuming 40 Ccf bi-monthly will increase from \$90.12 to \$100.88 (exclusive of Litigation Charges), an increase of \$10.76 increase, or 11.9 percent.

Comparison of Average Single Family Bill with Other Local Agencies

A bi-monthly bill comparison has been prepared of the District's average single family bill under the proposed rates herein with other local water purveyors in San Luis Obispo County for rates in effect as of July 1, 2010. The comparison is presented in Chart 1 and was prepared by applying the District's average single family water consumption of 40 Ccf to each of the water purveyor's single family water rate schedule. The chart indicates that the District's bi-monthly bill at 40 Ccf including Litigation Charges is in the lower half of the agencies listed.

I appreciate the opportunity to serve the District in this matter. If there are any questions regarding this report, please call me at (949) 760-9454.

Very Truly Yours,

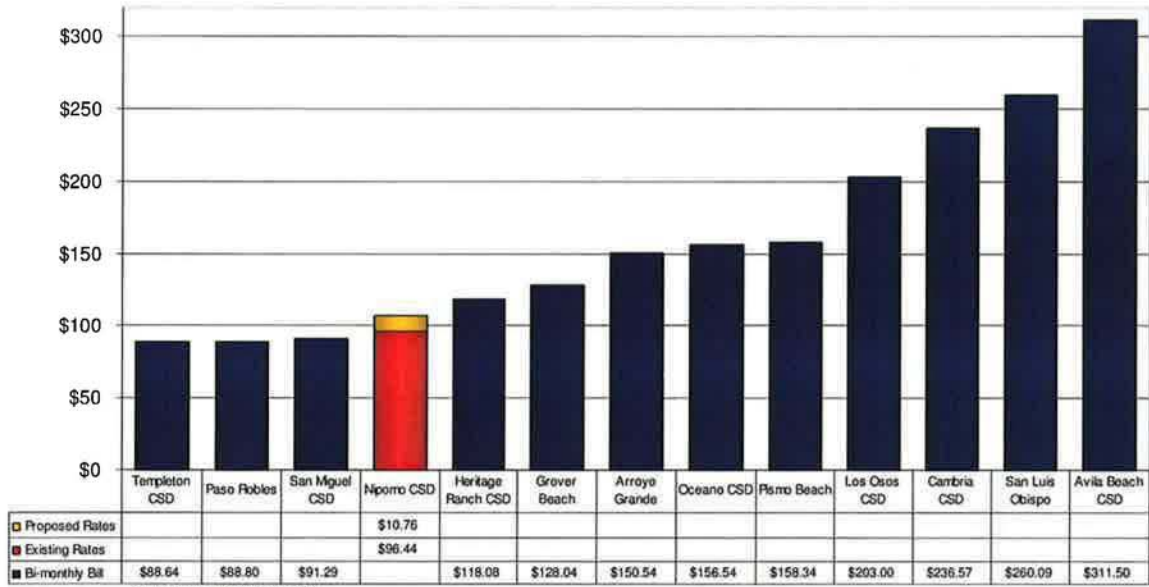
TUCKFIELD & ASSOCIATES



G. Clayton Tuckfield
Principal

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Chart 1
San Luis Obispo County Water Agencies
Comparison of Single Family Residential Bi-monthly Water Bills ^[1]
at 40 Ccf Bi-monthly



[1] For rates in effect July 2010.

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Appendix A

Revised Financial Plan Option 2

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Table A-1 **With Assessment Financing**
Nipomo Community Services District **50 Percent of Model 2: Service Life Savings Replacement**
Water Utility **Option 2**
Water Fund Flow of Funds Statement

Line No.	Description	Fiscal Year Ending June 30						
		2010-11	2011-12	2012-13	2013-14	2014-15		
Revenue								
1	Water Sales Revenue Under Existing Rates ^[1]	\$2,761,000	\$2,743,900	\$2,727,000	\$2,710,300	\$2,693,600		
	Additional Water Sales Revenue Required: Annualized							
	Fiscal Year	Revenue Increase	Effective Date					
2	2010-11	13.0%	Jan 1, 2011	179,500	356,700	354,500	352,300	350,200
3	2011-12	13.0%	Jan 1, 2012		201,500	400,600	398,100	395,700
4	2012-13	13.0%	Jan 1, 2013			226,300	449,900	447,100
5	2013-14	13.0%	Jan 1, 2014				254,200	505,300
6	2014-15	13.0%	Jan 1, 2015					285,500
7	Total Additional Water Sales Revenue			179,500	558,200	981,400	1,454,500	1,983,800
8	Litigation Charge Revenue			169,900	169,900	169,900	169,900	169,900
9	Total Water Sales Revenue			3,110,400	3,472,000	3,878,300	4,334,700	4,847,300
10	Other Revenue ^[2]			70,800	70,800	70,800	70,800	70,800
11	Interest Income From Operations ^[3]			10,900	8,800	7,600	7,200	8,500
12	Total Revenue			\$3,192,100	\$3,551,600	\$3,956,700	\$4,412,700	\$4,926,600
Revenue Requirements								
13	Operation and Maintenance Expense ^[4]			\$3,036,400	\$3,121,900	\$3,563,800	\$3,682,900	\$3,806,000
14	Debt Service							
14	1978 Water Revenue Bonds ^[5]			15,300	14,800	15,200	15,700	15,100
15	Minor Capital Expenditures			75,900	65,000	67,000	69,000	71,100
16	Transfers to Water Replacement Fund ^{[4] [6]}			700,000	566,000	566,000	566,000	571,000
17	Total Revenue Requirements			3,827,600	3,767,700	4,212,000	4,333,600	4,463,200
18	Net Funds Available			(\$635,500)	(\$216,100)	(\$255,300)	\$79,100	\$463,400
19	Beginning Water Fund Balance			2,500,000	1,864,500	1,648,400	1,393,100	1,472,200
20	Cumulative Water Fund Balance			\$1,864,500	\$1,648,400	\$1,393,100	\$1,472,200	\$1,935,600
21	Minimum Desired Balance ^[7]			\$1,518,200	\$1,561,000	\$1,781,900	\$1,841,500	\$1,903,000
Annual Debt Service Coverage								
22	Net Revenue ^[8]			\$202,800	\$459,900	\$401,900	\$736,600	\$1,125,100
23	Existing Debt Service Payments ^[9]			15,300	14,800	15,200	15,700	15,100
24	Coverage			1325%	3107%	2644%	4692%	7451%

^[1] Estimated revenue based on number of customers and projected water sales volume.

^[2] Includes penalties and miscellaneous income.

^[3] Assumes an interest rate of 0.5% on the average fund balance.

^[4] Projected expense from Table 3.

^[5] Existing 1978 Revenue Bonds debt service.

^[6] Annual amount for water system replacement. As budgeted for FY 2010-11.

^[7] Estimated at 180 days of operation and maintenance expense.

^[8] As defined in Resolution No. 137. Includes all charges and all other income including interest income of the Enterprise.

^[9] Debt service from line 14 above.

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Appendix B

Residential Bill Distributions

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Figure B-1
Cumulative Billed Usage of SFR Classification
Nipomo Community Services District

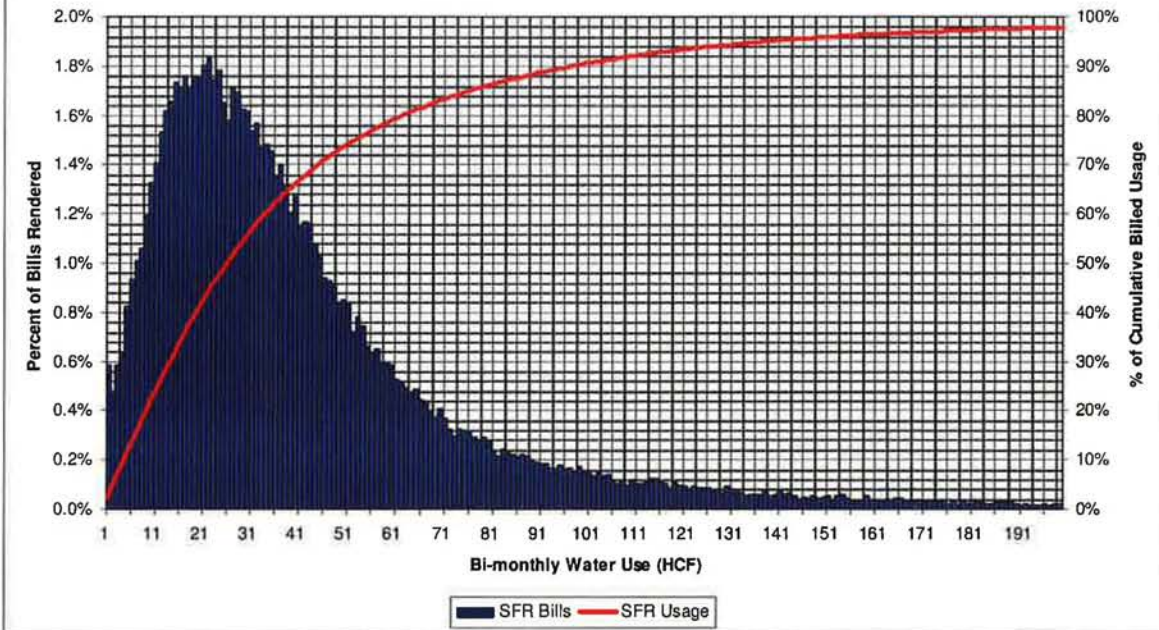
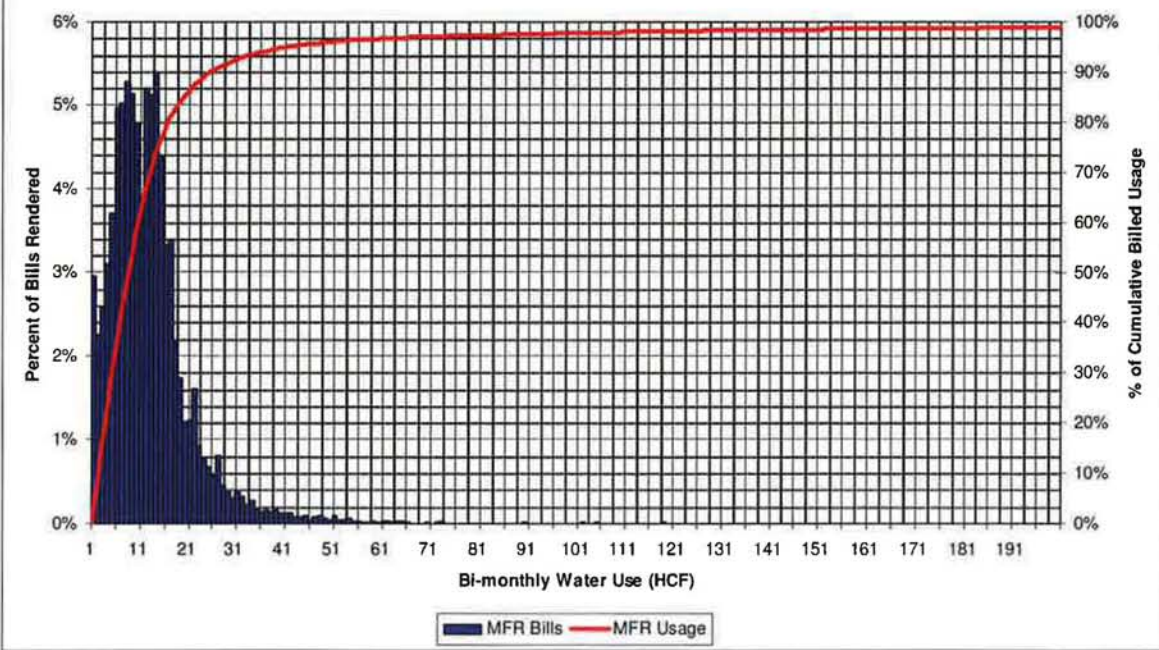


Figure B-2
Cumulative Billed Usage of MFR Classification
Nipomo Community Services District



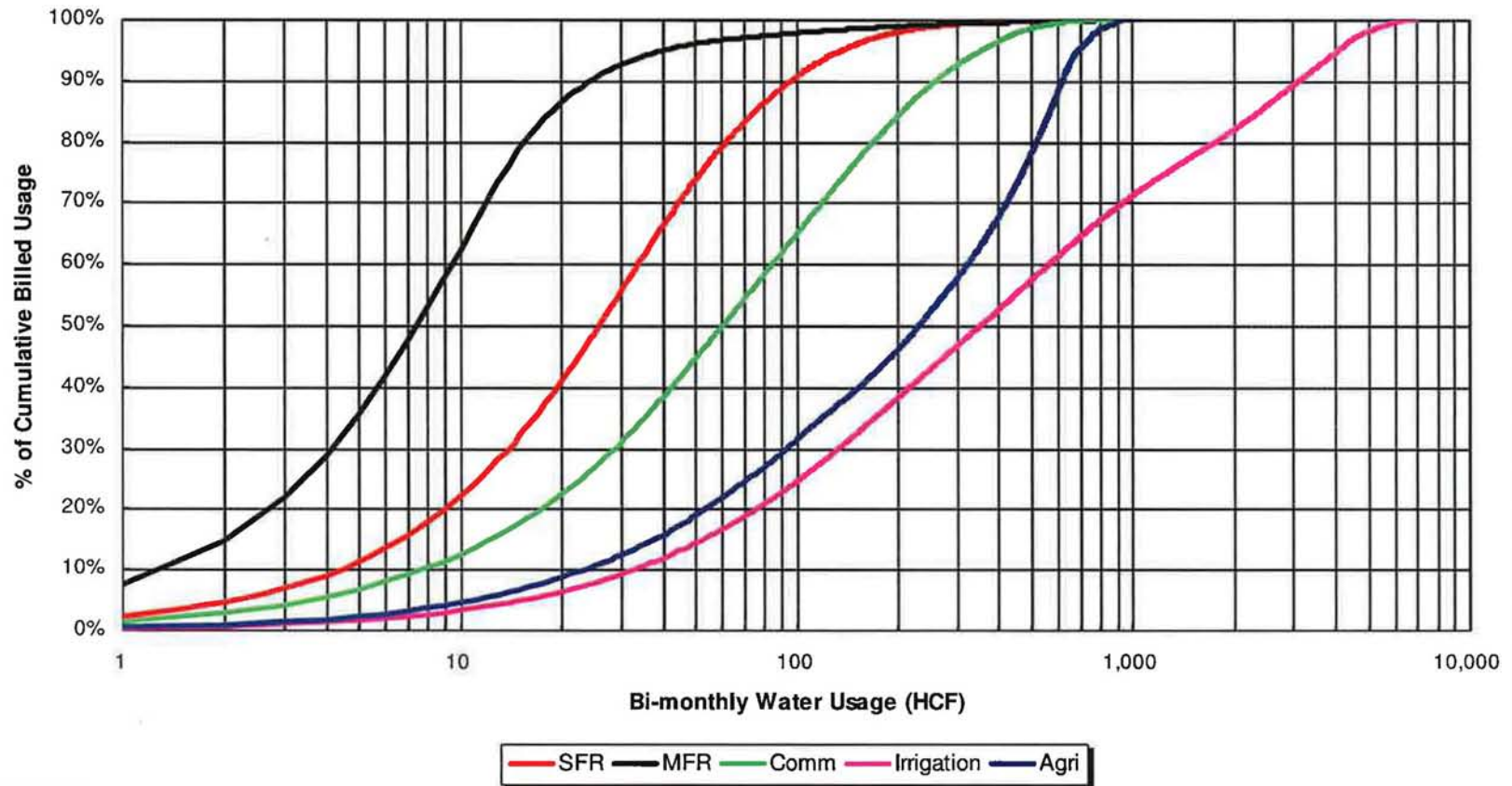
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Appendix C

Cumulative Billed Consumption Of Customer Classifications

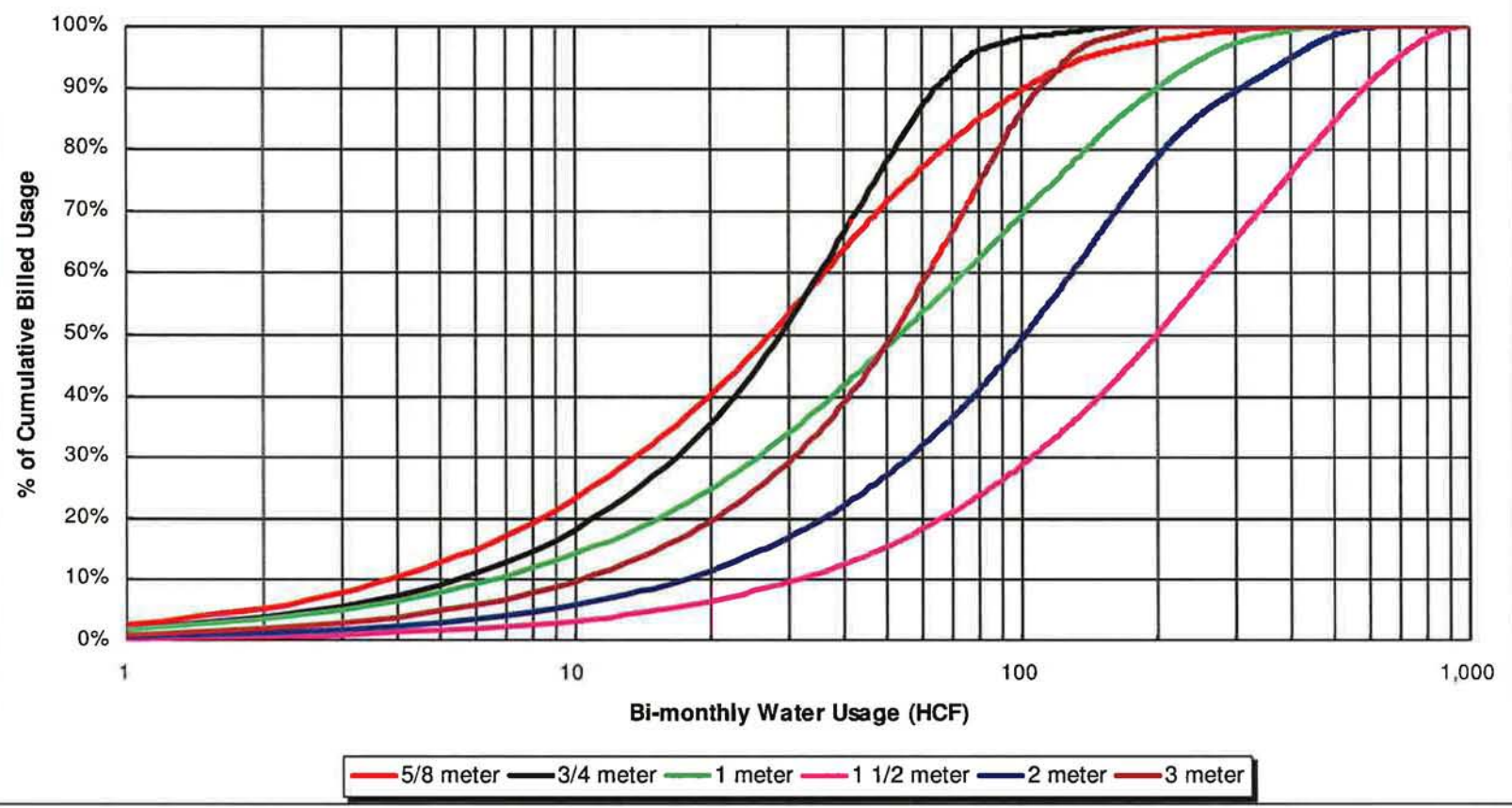
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Figure C-1
Cumulative Billed Usage of Customer Classifications
Nipomo Community Services District
FY 2004-05 thru FY 2008-09



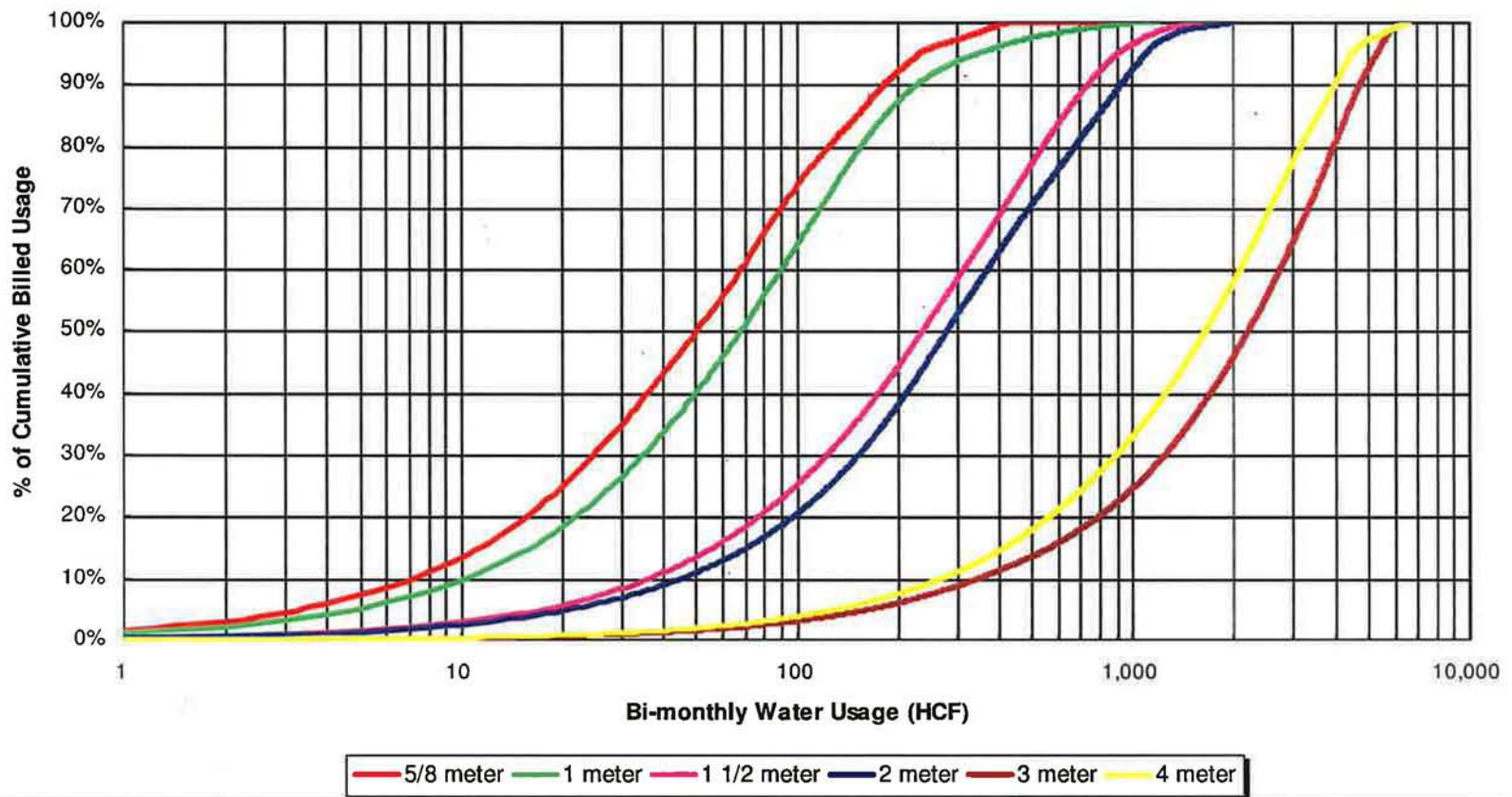
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Figure C-2
Cumulative Billed Usage of Commercial Classifications
Nipomo Community Services District
FY 2004-05 thru FY 2008-09



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Figure C-3
Cumulative Billed Usage of Irrigation Classifications
Nipomo Community Services District
FY 2004-05 thru FY 2008-09



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Appendix D

Fire Protection Fixed Charges

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Table D-1

Nipomo Community Services District

Water Utility

Proposed Bi-monthly Private Fire Protection Charges

Size	Existing Charges	Effective January 1 of each Fiscal Year				
		2010-11	2011-12	2012-13	2013-14	2014-15
Inches						
3	\$10.00	\$10.00	\$11.30	\$12.77	\$14.43	\$16.31
4	\$12.00	\$12.00	\$13.56	\$15.32	\$17.31	\$19.56
6	\$18.00	\$18.00	\$20.34	\$22.98	\$25.97	\$29.35
8	\$25.00	\$25.00	\$28.25	\$31.92	\$36.07	\$40.76
10	\$30.00	\$30.00	\$33.90	\$38.31	\$43.29	\$48.92

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