

TO: BOARD OF DIRECTORS
FROM: MICHAEL S. LEBRUN *msl*
INTERIM GENERAL MANAGER
DATE: DECEMBER 9, 2011

**AGENDA ITEM
E-1
DECEMBER 14, 2011**

**RECEIVE GROUNDWATER INDEX PRESENTATION
BY BRAD NEWTON, Ph.D, PG FROM WAGNER & BONSIGNORE
CONSULTING CIVIL ENGINEERS**

ITEM

Presentation of the fall groundwater index for the Nipomo Mesa area. [Receive Report]

BACKGROUND

Brad Newton of Wagner & Bonsignore is scheduled to summarize the attached report. The report is an independent product of Wagner & Bonsignore and is not reviewed or recognized by the Nipomo Mesa Management Area Technical group.

FISCAL IMPACT

Preparation of this report is included in the FY 2011-12 Budget.

RECOMMENDATION

Staff recommends that the Board receive the Report and give direction to staff.

ATTACHMENTS

- Fall 2011 Groundwater Index

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TECHNICAL MEMORANDUM

TO: NCS D Board of Directors
FROM: Brad Newton, Ph.D., P.G.; Jesse Herbert
RE: Fall 2011 Groundwater Index
DATE: December 07, 2011

INTRODUCTION

Groundwater surface elevations (GSE) underlying the Nipomo Mesa are regularly measured at many places (wells) across the mesa. The Fall 2011 Groundwater Index (GWI) has been computed and presented herein along with historical GWI from 1975 to present based on these groundwater surface elevation measurements collected during spring and fall across the Nipomo Mesa. Limited measurements of GSE were available for the years 1982, 1983, 1984, 1994 and 1997, thus precluding a reliable calculation of GWI for those years.

Ground elevation surveys for the key wells were conducted in preparation of the 1st Annual Report - Calendar Year 2008 for the Nipomo Mesa Management Area (NMMA). These updated reference points were not incorporated into the GWI to preserve consistency in the historical calculations and presentations.

The NMMA Technical Group has not reviewed this technical memorandum, its findings, or any presentation of this evaluation.

RESULTS

Fall 2011 GWI is 81,000 acre-feet (AF), which is 14,000 AF greater than the Fall 2010 GWI (Table 1, Figure 1). The Key Well Index from NMMA 3rd Annual Report - Calendar Year 2010 generally follows the same historical trends as the GWI (Figure 1).

METHODOLOGY

The calculation of spring and fall GWI are based on GSE measurements regularly made by San Luis Obispo County Department of Public Works (SLO DPW), NCS D, USGS, and Woodlands. The integration of GSE data is accomplished by using computer software to interpolate between measurements and calculate GWI within the principal production aquifer assuming an unconfined aquifer and a specific yield of 11.7 percent. Limited measurements of GSE were available for the years 1982, 1983, 1984, 1994 and 1997, precluding a reliable calculation of GWI for those years.

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RE: Fall 2011 GWI
DATE: December 07, 2011
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1 **Groundwater Surface Elevation Measurements**

2 Groundwater surface elevation data were obtained from SLO DPW, NCS D, USGS, and
3 Woodlands. SLO DPW measures GSE in monitoring wells during the spring (April) and the fall
4 (October) of each year. Woodlands and NCS D measures GSE in their monitoring wells
5 monthly. For the years 1975 to 1999, available representative GSE data were used to compute
6 GWI. For the years 2000 to 2011, only GSE data from the same 45 wells were used to compute
7 GWI.

8 The GSE data was reviewed in combination with well completion reports and historical
9 hydrographic records in order to exclude measurements that do not accurately represent static
10 water levels within the principal production aquifer. Wells that do not access the principal
11 production aquifer or were otherwise determined to not accurately represent static water levels
12 within the aquifer were not included in analysis.

13 **Groundwater Surface Interpolation**

14 The individual GSE measurements from each year were used to produce a GSE field by
15 interpolation using the inverse distance weighting (IDW) method.

16 **Groundwater Index**

17 The GWI is defined as the saturated volume above sea level and bedrock multiplied by the
18 specific yield of 11.7 percent. The value of the groundwater index was computed for the area
19 defined in Phase III of the trial. The base of the saturated volume is mean sea level surface
20 (elevation equals zero) or the bedrock above sea level, whichever is higher. The bedrock surface
21 elevation is based on Figure 11: Base of Potential Water-Bearing Sediments, presented in the
22 report, Water Resources of the Arroyo Grande - Nipomo Mesa Area (DWR 2002). The bedrock
23 surface elevation was preliminarily verified by reviewing driller reports obtained from DWR
24 (Figure 2). The specific yield is based on the average weighted specific yield measurement
25 made at wells within the Nipomo Mesa Hydrologic Sub-Area (DWR 2002, pg. 86).

26 **Key Well Index**

27 The NMMA Technical Group selected the data from eight inland key wells to represent
28 the whole of the NMMA. The Key Well Index was calculated annually using spring GSE
29 measurements from 1975 to 2009. The key wells were selected to represent various portions of
30 the groundwater basin within the NMMA. In selecting the eight key wells, the following
31 criteria were applied so that the wells generally represent the NMMA as a whole:

- 32 (1) The wells are geographically distributed,
- 33 (2) No single well overly influences the Key Well Index.

34 The first criterion was met in the selection of the wells, such that no well represented a
35 disproportionate area. To meet the second criterion, groundwater elevations from each well
36 were normalized so that any well where elevations were on the average higher or lower than

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TO: NCSB Board of Directors

RE: Fall 2011 GWI

DATE: December 07, 2011

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1 the other wells did not overly influence the magnitude of the Key Well Index. This
2 normalization was accomplished by dividing each spring groundwater elevation measurement
3 by the sum of all the Spring GSE data for that well.

4 The Key Well Index was defined for each year as the average of the normalized spring
5 groundwater data from each well. The lowest value of the Key Well Index could be considered
6 the "historical low" within the NMMA.

7

8 **REFERENCES**

9 Department of Water Resources (DWR). 2002. Water Resources of the Arroyo Grande - Nipomo
10 Mesa Area, Southern District Report.

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**Spring and Fall
 Groundwater Index
 (GWI)**

Year	Rainfall (inches)	Spring GWI (Acre-Feet)	Number of Wells	Fall GWI (Acre-Feet)	Number of Wells	Spring to Fall Difference (Acre-Feet)
1975	17.29	99,000	54	91,000	54	8,000
1976	13.45	82,000	45	76,000	65	6,000
1977	10.23	64,000	59	54,000	63	10,000
1978	30.66	84,000	62	---	35	---
1979	15.80	72,000	57	77,000	63	(5,000)
1980	16.57	88,000	55	89,000	46	(1,000)
1981	13.39	97,000	46	75,000	47	22,000
1982	18.58	123,000	42	---	31	---
1983	33.21	---	35	95,000	42	---
1984	11.22	---	14	76,000	37	---
1985	12.20	106,000	37	82,000	41	24,000
1986	16.85	98,000	51	67,000	51	31,000
1987	11.29	83,000	48	71,000	52	12,000
1988	12.66	80,000	51	66,000	49	14,000
1989	12.22	59,000	47	47,000	57	12,000
1990	7.12	62,000	55	49,000	53	13,000
1991	13.06	62,000	52	55,000	54	7,000
1992	15.66	61,000	52	35,000	48	26,000
1993	20.17	72,000	54	52,000	61	20,000
1994	12.15	60,000	54	---	36	---
1995	25.47	87,000	35	74,000	52	25,000
1996	16.54	76,000	45	62,000	57	14,000
1997	20.50	---	20	91,000	48	---
1998	33.67	105,000	41	93,000	44	12,000
1999	12.98	106,000	56	88,000	49	18,000
2000	14.47	108,000	44	84,000	41	24,000
2001	18.78	118,000	43	85,000	35	33,000
2002	8.86	96,000	29	79,000	41	17,000
2003	11.39	94,000	37	66,000	42	28,000
2004	12.57	89,000	42	81,000	35	8,000
2005	22.23	98,000	38	79,000	39	19,000
2006	20.83	107,000	44	78,000	41	29,000
2007	6.96	93,000	44	66,000	42	27,000
2008	15.18	83,000	43	65,000	42	18,000
2009	10.31	76,000	44	65,000	43	11,000
2010	17.05	80,000	45	67,000	42	13,000
2011	29.19*	87,000	43	81,000	43	6,000

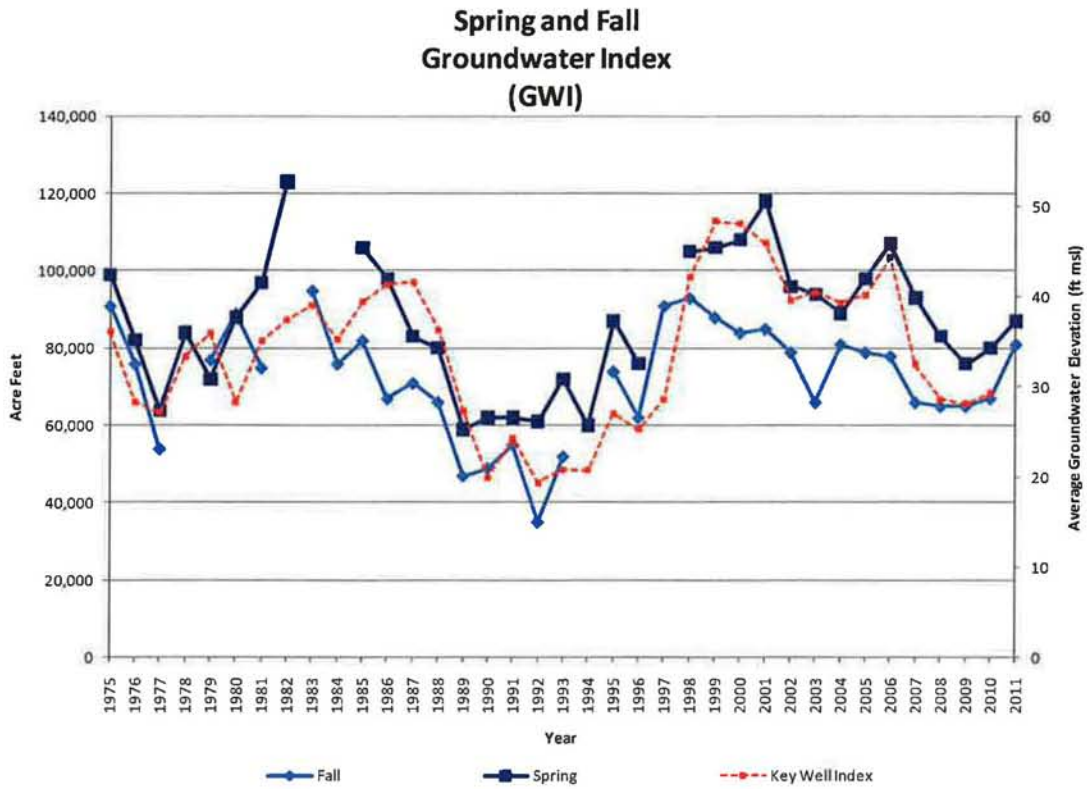
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—: Insufficient for evaluation
 *: Preliminary value

Table 1: Groundwater Index computed from Spring 1975 to Fall 2011.

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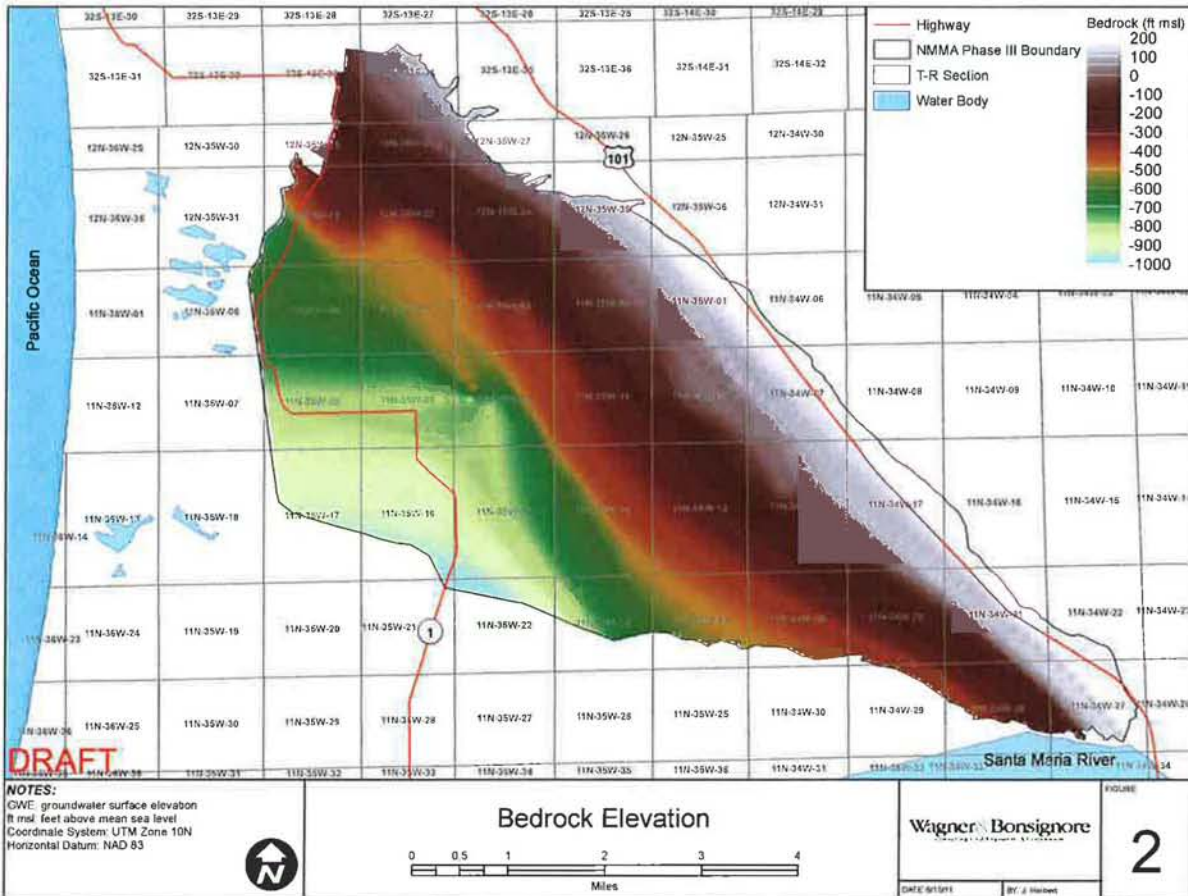


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Figure 1: Groundwater Index from Spring 1975 to Fall 2011 and the Key Well Index computed from Spring 1975 to Spring 2010.

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Figure 2: Elevation of bedrock underlying the NMMA.

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TO: BOARD OF DIRECTORS
FROM: MICHAEL S. LEBRUN *MSL*
GENERAL MANAGER
DATE: DECEMBER 9, 2011

**AGENDA ITEM
E-2
DECEMBER 14, 2011**

**REVIEW DANA ADOBE NIPOMO AMIGOS PROJECT
WATER USE PROJECTION**

ITEM

Review Dana Adobe Nipomo Amigos (DANA) Project Water Use Projection [RECOMMEND REVIEW INFORMATION AND DIRECT STAFF]

BACKGROUND

In April 2011, DANA received a grant of \$2.9 million to design, permit and construct Stories of the Rancho Project (Project). The County General Plan restricts development along South Oakglen Avenue. DANA is seeking revision to the applicable sections of the General Plan to allow the Project to move forward.

DANA receives potable water service from the District under an Outside Users Agreement (Attached). As an Outside User, DANA pays double the stand-by and use rates of regular District customers. The District and the DANA Project are located within the Nipomo Mesa Water Conservation Area as established by County Ordinance 3090. Ordinance 3090 prohibits General Plan Amendments that increase non-agricultural water demand more than the amount otherwise available based on the land uses possible under the current County General Plan within the Nipomo Mesa Water Conservation Area.

The District requested DANA provide a water use projection for the proposed project (see attached). District review of the water use projection indicates that the projections are prepared in accordance with industry professional standards of practice and District requirements. The proposed project is estimated to require an equivalent amount of water as currently permitted by the District's Water Service Limitations if the parcels were developed as residential. Thus it appears that the project will not increase non-agricultural water demand more than the amount otherwise available based on the land uses possible under the current County General Plan.

FISCAL IMPACT

Minor budgeted staff time was utilized to prepare these materials.

RECOMMENDATION

Staff recommends that the Board receive staff's presentation, consider the draft comment letter, suggest edits and revisions, and by motion and roll call vote, direct staff to provide the comment letter for the project to the County.

ATTACHMENTS

- DANA Outside Users Agreement
- DANA Water Use Projection
- Draft Comment Letter

**MEMORANDUM OF ASSIGNMENT OF WATER SERVICE AGREEMENT
DANA ADOBE**

San Luis Obispo County Historical Society ("Assignor" or "SLOCHS") and the Nipomo Community Services District ("NCSD") enter into this Memorandum of Assignment ("Memorandum of Assignment") of a Water Service Agreement for the benefit of the Dana Adobe located at 671 S. Oakglen Avenue, Nipomo, California, with reference to the following Recitals:

RECITALS

- A. On or about June 5, 1972, NCSD and SLOCHS entered into an agreement ("Agreement") whereby the NCSD agreed to provide the Dana Adobe water from the NCSD water system for the use of the Dana Adobe. Said Agreement is attached hereto as Exhibit "A" and incorporated herein by reference as though set forth at length (herein "Agreement").
- B. SLOCHS desires to transfer, or has transferred, the Dana Adobe to Dana Adobe Nipomo Amigos, a non-profit corporation, ("DANA" or "Assignees").
- C. Section 7 of the Agreement provides as follows:

"Neither party shall assign this Agreement or any rights thereunder without the prior written consent of the other party".
- D. The parties enter into this Memorandum of Assignment for the purposes of acknowledging the NCSD's consent to the assignment of the Agreement from SLOCHS to DANA.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties agree as follows:

- 1. Incorporation of Recitals

Recitals A through D are incorporated herein by reference as though set forth at length.

MEMORANDUM OF ASSIGNMENT OF WATER SERVICE AGREEMENT
DANA ADOBE

2. Assignment to DANA

Pursuant to Paragraph 7 of the Agreement, SLOCHS requests the NCSD's consent to the assignment of the Agreement to DANA.

3. NCSD's consent

On January 14, 2004, the NCSD, at its regularly scheduled meeting, approved the Assignment and instructed District Legal Counsel to prepare an agreement acknowledging NCSD's consent.

4. Incorporation of Agreement

The terms and conditions of the Agreement are incorporated herein by reference.

5. Successors and Assigns

This Memorandum of Assignment shall bind and inure to the benefit of the parties and their respective heirs, successors, and assigns, subject, however, to the provisions of the Agreement.

6. Governing Law

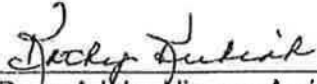
This Memorandum and the Agreement are governed by California law.

Executed as of the date referenced below at Nipomo, California, County of San Luis Obispo, State of California.

ASSIGNOR: SLOCHS

ASSIGNEE: DANA


San Luis Obispo Historical Society


Dana Adobe Nipomo Amigos

By: JOHN SCHURZ
(Print Name)

By: KATHY KUBIAK
(Print Name)

Date: July 2, 2004

Date: JULY 6, 2004

////
////

MEMORANDUM OF ASSIGNMENT OF WATER SERVICE AGREEMENT
DANA ADOBE

CONSENT OF NCSD

Effective the date the real property known as the Dana Adobe is transferred to DANA and subject to the terms and conditions of this Memorandum of Assignment, NCSD consents to the Assignment of the Agreement to Assignee.

Executed the 6th day of July, 2004 in Nipomo, California, on behalf of the Nipomo Community Services District .

By: Michael Winn
Michael Winn, President
Nipomo Community Services District
Board of Directors

ATTEST:

Donna K. Johnson
Donna K. Johnson, Secretary
to the Nipomo Community Services District
Board of Directors

AGREEMENT

THIS AGREEMENT entered into this 5th day of June 1972, by and between the NIPOMO COMMUNITY SERVICES DISTRICT, a public corporation located in the County of San Luis Obispo, State of California, and hereinafter termed "District", and the SAN LUIS OBISPO COUNTY HISTORICAL SOCIETY, a non-profit corporation located in the County of San Luis Obispo, State of California, and hereinafter termed "Society":

WITNESSETH:

WHEREAS, Society operates the Dana Adobe located outside of the Nipomo Community Services District boundaries, and

WHEREAS, the Dana Adobe is a structure of outstanding historical significance in the County of San Luis Obispo and is open to the public for viewing, and

WHEREAS, the Dana Adobe has no water presently available to it, but has urgent need of water for sanitary purposes, and

WHEREAS, Nipomo Community Services District has water which it can make available to the Dana Adobe for said purposes, it is in the public interest that such be done, District has the legal power so to do, and there is no other source of water for the Dana Adobe than District.

NOW, THEREFORE, in consideration of the mutual covenants, conditions, promises and agreements herein set forth, District

District and Society, the parties hereto, hereby mutually covenant and agree as follows:

1. That the above recitals are true and correct.
2. That District shall provide to Society water from the District water system for the use of the Dana Adobe, and Society shall pay District for said water pursuant to the duly established District water rates.
3. That Society shall pay for all costs of connecting the Dana Adobe to the District water system.
4. That the District shall install a water meter for the Dana Adobe in the County road right of way at the end of Districts ten (10) inch water main on Oak Glenn (a County road); provided, however, that Society shall pay District the cost of said meter, and Society shall pay District the regular District hook-up charge.
5. That Society shall at its own sole cost and expense install waterpipes from said meter to the Dana Adobe approximately 5/8 of a mile in said County road; provided that said waterpipes shall be the property of Society and shall be operated, maintained, repaired, replaced and enlarged by Society at its sole cost and expense.
6. That Society agrees that District has prior water-pipe and appurtenant facility rights in said County road where Society will install said waterpipes as stated herein-above, and that District is not waiving said prior rights therein by this Agreement; therefore, Society agrees that if at

anytime in the future it is in the judgment of District in its interest to so do, District may install its own waterpipes and appurtenant facilities in said County road in said same area; and Society further agrees that in the above event, if at such time or any other time the relocation of the waterpipes or any portion thereof installed by Society pursuant to this Agreement is required, that Society will pay for the full cost of said relocation.

7. Neither party shall assign this Agreement or any rights thereunder without the prior written consent of the other party.

8. In the event that title to the Dana Adobe is transferred, either voluntarily or involuntarily, at any time, to any person, firm, corporation or entity, public or private, other than Society, then in that event this Agreement shall automatically terminate and be null and void; provided that in that event District may cease furnishing water to said Dana Adobe, and Society agrees that it is not acquiring any water rights by this Agreement.

9. This Agreement shall be binding on the successors and assigns of District and of Society.

IN WITNESS WHEREOF, District and Society have executed this Agreement on the day and year first hereinabove set forth.

NIPOMO COMMUNITY SERVICES DISTRICT

By: *Ronald J. Swenson*
President of the Governing Board
of said District

ATTEST:

M. L. Oehl
Secretary of the Governing Board
of said District

SAN LUIS OBISPO COUNTY HISTORICAL
SOCIETY

By: *W. Young Davis*
President of said Society
Quilbe D. Andrews
Secretary of said Society

Hodge
Land Planning + Civil Engineering

This letter is to provide supporting analysis for the determination that the proposed Stories of the Ranchos Project CUP application Master Plan will not use more water than the amount otherwise available under NCSD ordinance based on the land uses possible today under the County Land Use Element.

The proposed project includes a Visitor Center, caretaker residence, and associated landscape. See attached Master Plan.

Under the General Plan, uses currently allowed are limited to those in the Residential Suburban Land Use category. The category allows secondary dwellings.

Water Demand Certification Requirement

Legal parcels:

090.171.036 (30.72 acres)

090.171.011 (0.253 acres / 11,025 s.f.)

NCSD Ordinance No. 2009-114 section 3.05.030 sets the residential water use limits by parcel size:

For parcels less than 12,768 s.f. the allocation is **0.40 AFY**

For parcels greater than 25,536 s.f. the allocation is 0.82 AFY and a secondary dwelling is allocated an additional 10%, yielding **0.90**

Therefore, based on the two Dana parcels with the assumption that a secondary dwelling is allowed on 090.171.036, the allocation would be **1.30 AFY** (0.40 + 0.90)

Estimated Water Demand

Visitor Center and freestanding restroom¹. Calculations use 1 gallon per flush.

Staff: up to 10 persons for 6 hours daily, two uses per day, 312 days=6,240 gallons

Students: up to 2 busses per week with 75 students for 2 hour duration, 36 weeks (school year) and 0.33 students using the restrooms= 1,782 gallons

Regular visitors: up to 75 people per day, 312 days and 0.33 persons using restroom in 2 hour visit= 7,722 gallons

Events: up to 270 persons, twelve times a year, with 100% using restroom= 3,240 gallons

Total domestic demand for Visitor Center: 18,984 gallons X 1.15 added for interior miscellaneous use= 21,831 gallons per year or 0.07 AFY



¹ Domestic water use and visitor levels provided by Steven Puglisi Architecture and Dana Adobe Nipomo Amigos.

Caretaker Residence

Per NCSD ordinance, the allocation is 0.28 AFY for multi-family / apt size caretaker residence including irrigation demand. Landscape for other areas is accounted for separately below.

Landscape Irrigation Demand²

Calculations are attached using the State Water Efficient Landscape Ordinance template and factors, prepared by Firma. Native plants using plant factor of 0.1, with the interpretive garden using a plant factor of 0.3. (Turf is a factor of 0.6, no turf is proposed).

Irrigation method is drip. Individual oak trees and orchard trees do not fit the template so a factor has been added to the total to account for miscellaneous individual plants.

WELO Estimated irrigation water budget: 0.83 AFY

Miscellaneous individual tree factor: 0.10%

Total: 297,689 gallons or 0.93 AFY

Total CUP Master Plan water demand:

Visitor Center:	0.07 AFY
Caretaker Residence:	0.28 AFY
Landscape:	<u>0.93 AFY</u>

Total: 1.28 AFY

CONCLUSION

Based on the factors presented compared to the ordinance established water demand certifications for the land uses permitted under the General Plan, the proposed Master Plan would use 0.02 AFY less than the allocation.



² Landscape irrigation water demand provided by Firma, David Foote ASLA, see attachment

**Estimated Total Water Use (ETWU) using
 State Model Water Efficient Landscape Ordinance Method**

TO CALCULATE MAWA - Maximum Applied Water Allow	
ETo	47.4
LA	56,870
SLA	0
MAWA (Gallons)	
MAWA (Inches per sq.ft.)	33.0
MAWA (Inches per DAY)	0.09

1,169,907

DEFINITIONS	
ETo	Reference provided in Appendix A - CIMIS
LA	Landscaped area
SLA	Special landscaped area WITHIN the landscaped area
P.F.	Plant water use factor- WUCLOS
H.A.	Hydro zone area = Irrigated area
I.E.	Irrigation efficiency. Must exceed 0.71.

Maximum Applied Water Allowance Equation:
 $MAWA = (ETo) (0.62) [(0.7 \times LA) + (0.3 \times SLA)]$

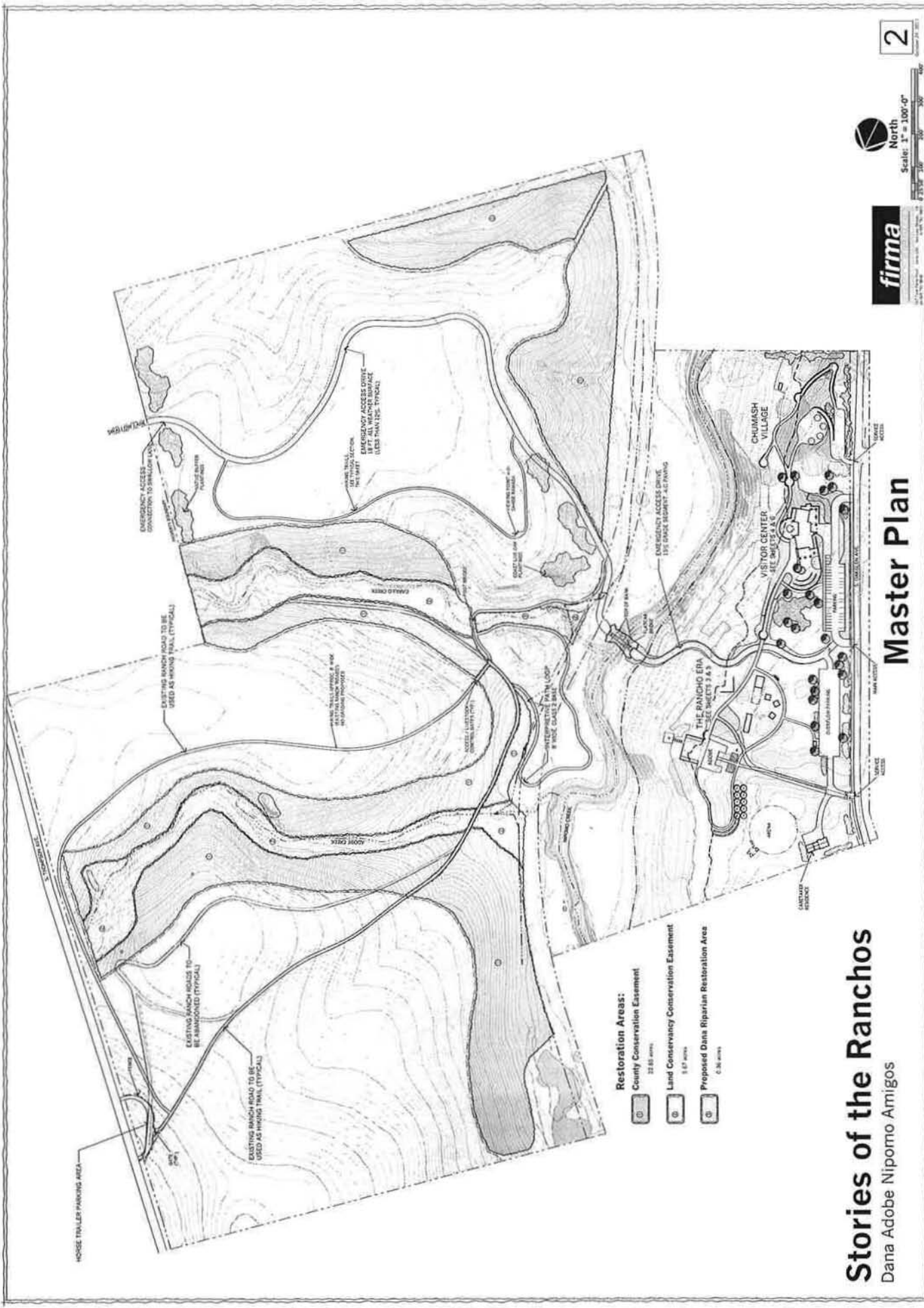
TO CALCULATE ETWU - Estimated Total Water Use	
ETo	47.4
PFxHA (see chart)	7367
HA (same as LA)	56,870
IE (see chart)	0.8
SLA	0
ETWU (Gallons)	
ETWU (Inches per sq.ft.)	7.6
ETWU (Inches per DAY)	0.02

270,627

To Determine Plant Factor with Multiple Hydro Zones				
H.Z.	Type	P.F.	H.A.	Weighted P.F.
1	very low	0.1	48,470	
2	low	0.3	8400	
3				
4				
5				
6				
Total			56870	7367

Estimate Total Water Use Equation:
 $ETWU = (ETo \times 0.62) [(PF \times HA)/IE] + SLA$

To Determine Average System "IE" exceeds .71					
H.Z.	Type	Sprinkler	HA	IE	Weighted IE/HA
1	LOW (LW)	D (DRIP)	56,870	0.8	
2					
3					
4					
5					
6					
Totals			56870		0.8



- Restoration Areas:**
- 1 County Conservation Easement
22.85 acres
 - 2 Land Conservancy Conservation Easement
8.47 acres
 - 3 Proposed Dana Riparian Restoration Area
0.38 acres

Stories of the Ranchos

Dana Adobe Nipomo Amigos

Master Plan

NIPOMO COMMUNITY

BOARD MEMBERS

JAMES HARRISON, PRESIDENT
LARRY VIERHEILIG, VICE PRESIDENT
MICHAEL WINN, DIRECTOR
ED EBY, DIRECTOR
DAN A. GADDIS, DIRECTOR



Serving the Community Since 1965

SERVICES DISTRICT

STAFF

MICHAEL S. LEBRUN, GENERAL MANAGER
LISA BOGNUDA, ASSISTANT GENERAL MANAGER
PETER SEVCIK, P.E., DISTRICT ENGINEER
TINA GRIETENS, UTILITY SUPERINTENDENT
JON SEITZ, GENERAL COUNSEL

148 SOUTH WILSON STREET POST OFFICE BOX 326 NIPOMO, CA 93444 - 0326
(805) 929-1133 FAX (805) 929-1932 Website address: ncsd.ca.gov

December XX, 2011

Board of Supervisors
County of San Luis Obispo
Room D-430, County Government Center
San Luis Obispo, CA 93408

SUBJECT: DANA ADOBE NIPOMO AMIGOS STORIES OF THE RANCHO PROJECT SUPPORT LETTER

Dear Chairperson Hill, Vice-Chairperson Patterson, Supervisor Teixeira, Supervisor Gibson and Supervisor Mecham:

Please accept this letter providing comment of the Nipomo Community Services District ("District") to the proposed General Plan Amendment to allow the development and construction of the Dana Adobe Nipomo Amigos (DANA) Stories of the Rancho Project (Rancho Project). The District Board of Directors received a presentation on the projected water use for the Rancho Project during the District's December 14, 2011 and approved this letter at that time.

The District Board of Directors supports the development of the Rancho Project. However, there is also strong opposition to any General Plan Amendment that is contrary to the Rules, Regulations and Prohibitions established by County Ordinance 3090. Ordinance 3090 prohibits General Plan Amendments that increase non-agricultural water demand more than the amount otherwise available based on the land uses possible under the current County General Plan within the Nipomo Mesa Water Conservation Area.

The District requested that DANA provide a water use projection for the Rancho Project. District review of the water use projection indicates that the Rancho Project will use the equivalent amount of water as currently permitted by the District's Water Service Limitations if the parcels were developed as residential. Thus it appears that the project will not increase non-agricultural water demand more than the amount otherwise available based on the land uses possible under the current County General Plan.

The Rancho Project includes elements of water conservation education, both active and passive, that will stand to complement the District's conservation efforts for generations to come.

Thank you for considering this letter.

Very truly yours,

NIPOMO COMMUNITY SERVICES DISTRICT

James Harrison
Board President

C:
Ms. Marina Washburn, Executive Director Dana Adobe Nipomo Amigos
San Luis Obispo Planning and Building Department

TO: BOARD OF DIRECTORS
FROM: MICHAEL S. LEBRUN
GENERAL MANAGER
DATE: DECEMBER 9, 2011

**AGENDA ITEM
E-3
DECEMBER 14, 2011**

**REVIEW BASIS FOR SUPPLEMENTAL WATER PROJECT
BENEFIT ASSIGNMENT**

ITEM

Review basis for supplemental water project benefit assignment and provide staff direction for drafting a policy to guide evaluation of benefit change requests.

BACKGROUND

On September 24, 2008, your Board tentatively selected assessment funding as the mechanism to fund the Supplemental Water Project's capital debt service and authorized staff to retain an assessment engineer to prepare a Preliminary Assessment Report. The District retained the Wallace Group as assessment engineer and Wallace Group presented an Initial Feasibility Report to your Board on November 26, 2008.

At that meeting, your Board affirmed its choice of assessment funding to service project capital debt and directed staff to issue a request for proposals for Assessment Engineers. Additionally, your Board authorized staff negotiations with Golden State Water Company, Rural Water Company, and the Woodlands Mutual Water Company seeking their involvement in the assessment financing approach. Ultimately, your Board retained Wallace Group as Assessment Engineer and reached informal agreement with all three water companies to participate in the assessment district formation. The attached December 8, 2011 Memorandum from the Assessment Engineer further details assessment district development to date. Attached to the Memorandum is the April 2009 Memorandum on assessment district research (Pages 5-16 of packet) and the Basis for Assessment (Pages 17-20). Ms. Kari Wagner of the Wallace Group will be present to review her memorandum and the Basis for Assessment.

The Basis for Assessment provides the foundational information for assessment benefit spread and Assessment Engineer's report. Prior to finalizing the AE Report, a letter will be sent to all property owners within the proposed assessment district. The letter will serve two primary purposes: 1) To verify the property ownership record, and 2) To inform the property owner of the proposed benefit unit assignment for their property.

Since the District is assigning benefit to under-developed and undeveloped (U&U) property based on development potential as allowed under the County's General Plan, this process requires a number of assumptions that must be made for these properties. It is possible that owners of U&U land may ask for a review of the assumptions made, offer updated information, or otherwise request a change in benefit assigned based on development potential.

Since some U&U land was assigned *less* benefit than would support full development under the County General Plan, some owners may request an increase in benefit assignment. It was beyond the ability of the Assessment Engineer to consider all physical property features that might limit full development potential and for this, and other potential reasons, some owners may request a reduction in benefit assignment.

AGENDA ITEM E-3
DECEMBER 14, 2011

Staff envisions allowing increases in benefit assignment, up to the maximum allowable under the County General Plan upon recordation of a District approved waiver and consent form on title. In cases where an owner requests a reduction in the benefit assigned based on development potential, an owner would be required to record a deed restriction on the property in favor of the District (NCSD) limiting future development commensurate with the reduced benefit assignment.

Staff will draft a policy outlining the procedure for considering benefit assignment change request based on the criteria outlined above. Staff seeks your Board's input on additional criteria that may be considered. The draft policy will come before your Board at the same time as the draft Letter to Property Owners.

FISCAL IMPACT

Staff time and professional consulting services related to supplemental water project development are included in the 2011-2012 budget. These costs are capitalized and included in the project cost and are recoverable following a successful financing vote.

STRATEGIC PLAN

Strategic Plan Goal 1.2 – Secure New Supplies

RECOMMENDATION

Staff recommends your Board consider the information provided, by motion and roll call vote affirm Basis for Assessment or provide direction to staff on requested changes.

ATTACHMENTS

- December 8, 2011 Wallace Group Memorandum w/ Attachments

MEMORANDUM

Date: December 8, 2011
To: Michael LeBrun, NCSD General Manager
From: Kari Wagner, PE
Subject: Nipomo Mesa Supplemental Water Project Decision Timeline

As requested, the following provides a summary of the action steps/decisions that have occurred over the past three years in regards to the assessment district formation for the Nipomo Mesa Supplemental Water Project.

- November 2008 – Wallace Group (WG) prepared a Preliminary Assessment Report that discussed formation of an assessment district, the various options on establishing a basis of assessment, estimated benefit unit assignments, and estimated debt service per benefit unit. NCSD Board authorized WG to proceed with conducting a study based on water usage to establish benefit.
- On January 28, 2009, NCSD authorized WG to develop a database to evaluate existing and future development potential, and compare existing development to water consumption to establish the basis for assessment. WG completed a water use analysis using two years of water consumption for 2,700 residential parcels and 47 commercial parcels to establish trends. The results of the water use analysis was provided by WG in the April 15, 2009 Draft NCSD Assessment District Research Memorandum that was reviewed by the Board on April 22, 2009. A preliminary Basis of Assessment was also provided in this memorandum. In addition, on April 22, 2009 the Board authorized including Golden State Water Company, Rural Water Company, and Woodlands Mutual Water Company into the assessment district and authorized WG to prepare a database of the property owners in each of the water purveyor's service areas.
- Based on the Preliminary Basis of Assessment memorandum approved by the Board on April 22, 2009, WG completed a Sensitivity Analysis for the Basis of Assessment Memorandum, dated May 15, 2009 to NCSD staff. The Board reviewed the memorandum on May 20, 2009. The focus of this memorandum was 1) assign benefit units to all parcels within NCSD and 2) complete a sensitivity analysis (6 options were provided) to determine how much developed versus undeveloped parcels should pay and evaluate the difference of costs at full development potential versus an assumed reduction of development potential. Based on this analysis, the Board approved Option SA1, developed and undeveloped pay equal, and developed parcels would receive a credit for the \$6 million available in the reserves. Minor changes were made to the Basis of Assessment as result



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of preparing the Sensitivity Analysis. Following this meeting, WG submitted an updated Sensitivity Analysis on May 28, 2009.

- In May 2009, NCSD staff authorized WG to complete a database analysis and evaluate the costs per benefit unit for Golden State Water Company, Rural Water Company, and Woodlands Mutual Water Company if included in the assessment district. September 2, 2009, WG submitted the Draft Assessment District Research for Woodlands Mutual Water Company, Golden State Water Company, and Rural Water Company Memorandum. Similar to the effort completed for NCSD, WG completed a database analysis and benefit unit assignment for the three water purveyors and presented it to the Board on September 9, 2009. WG prepared a Basis of Assessment for each of the three water purveyors. Water usage was assumed for both Golden State Water Company and Rural Water Company since the two companies, by company policy, would not release water records. WG worked with Woodlands Mutual Water Company and evaluated water use on existing developed parcels to establish their Basis of Assessment.
- On October 8, 2010, WG submitted a Draft Engineer's Report, Roll, and Diagram to NCSD and the County of San Luis Obispo for review. WG received comments and updated the Engineer's Report on November 18, 2010. This report, roll and diagram were provided to the Water Purveyors to review and comment.
- Since November 2010, WG has provided the District with support for activities that were being completed by the District, including meetings, schedule updates, information to the County, bond counsel, public relations, and assessment district formation counsel, and has re-reviewed all parcels within the assessment district, evaluated their benefit unit assignments, and updated the database for all four water purveyors. WG has also updated the Basis of Assessments for each of the Water Purveyors as new nuances were identified. This included adding new categories to account for special case properties and clarifying the table for ease of reading. WG has also prepared draft letters to property owners that identify individual benefit unit assignments. WG recently submitted an updated Engineer's Report in December 2011 to staff for review. This report was updated to include recent decisions to have NCSD as lead of the assessment district and the removal of the Santa Maria costs from the assessment district.

Attachments:

- Draft NCSD Assessment District Research Memorandum, dated April 15, 2009
- Current Basis of Assessment for all four water purveyors

MEMORANDUM

Date: April 15, 2009
To: Bruce Buel
From: Kari Wagner, P.E.
Subject: DRAFT NCSD Assessment District Research

The Nipomo Community Services District (District) is currently in the process of designing an inter-tie water main between the City of Santa Maria and the District to bring a supplemental water supply for existing and future water demands. This project is estimated to cost the District \$21 million dollars. Wallace Group prepared a Preliminary Assessment Report discussing the formation of the assessment District in November 2008. The Board authorized staff to proceed with the formation of an Assessment District as the method of payment for the project.

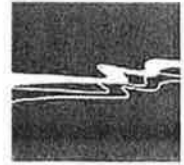
As Wallace Group prepared the Preliminary Assessment Report, the database that was used to estimate the benefit units was determined to be unreliable. The information received was from the County's Assessor's database, which has errors in the information that is inputted. At the time of the Preliminary Assessment Report, Wallace Group made some assumptions in order to provide preliminary estimates on a per unit basis for the assessment district.

Following the completion of the Preliminary Assessment Report, Wallace Group discussed the database with District staff and it was recommended to review the entire database to confirm two things: 1) The accuracy of the information inputted. 2) Determine the development potential for each parcel. It was recommended to complete this task prior to the preparation of the engineer's report to allow adequate time for the research.

The District authorized Wallace Group to proceed with the review of the database on January 28, 2009. Wallace Group has been diligently working on reviewing over 5,000 parcels for the past 6 weeks and analyzing the data against water consumption. The following are the assumptions that were made, the references that were used, and various other information that was used to assist us with developing the database. Finally, an analysis was completed on the existing development against water consumption to determine a correlation between water use and parcel size.

DATABASE ANALYSIS

Below describes the means and methods Wallace Group took to determine the existing uses and the development potential for every parcel within the District.



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Reference Sources

1. SLO County Land Use Ordinance Title 22
2. South County Planning Area Standards Chapter 22.112
3. Black Lake Specific Plan
4. County Tax Assessor's database
5. County GIS parcel aerial database and Tidemark permit tracking system
6. Google Earth aerial information

Notes on the Data Evaluation

1. Assessor's land use descriptions were not necessarily reliable. If the descriptions were backed by other information, we accepted it.
2. Assessor's parcels are not necessarily legal parcels – some legal lots contain several Assessor's parcels with different tax bases due to use.
3. Land Uses listed as "allowed" include those allowed with a conditional use permit.
4. Secondary units in a SF zone are on the same meter and subordinate to the primary residence, while in MF zoning, multiple detached units are each on their own meter and are each considered a "primary" unit.
5. Although nearly all RSF lots over 6,000 sf in size are potentially allowed a secondary unit, in reality the configuration of existing development may preclude the ability to construct one without demolition.
6. Although most RSF lots over 12,000 sf in size are potentially allowed by ordinance to subdivide, the configuration of the parcel shape, regardless of existing development, may preclude that ability due to frontage requirements. Where these lots are already developed, many could only be subdivided with demolition of the existing unit.
7. Parcels with incorrect or retired Assessor's numbers were placed on a separate tab along with split-zoned parcels to be analyzed individually.

Assumptions & Thresholds

1. All parcels within District boundary are, or will be, served by community water and wastewater (Sec. 22.22.080).
2. Residential Single-Family lots of less than 6,000 sf do not have Secondary Dwelling Unit capability (Sec. 22.10.130.B.2).
3. All RSF lots over 6,000 sf in size have potential for adding a Secondary Dwelling unit, unless on septic systems. If parcel is on a septic system, all RSF lots under two acres do not have Secondary Dwelling Unit capability.
4. Black Lake parcels do not have Secondary Unit potential, regardless of size, because REC zoning does not permit them (22.06.030 Table 2-2). We



assume that any attempt to increase density would require a Specific Plan Amendment.

5. Residential Multi-Family lots do not have potential for Secondary Dwelling units, regardless of parcel size (22.10.130).
6. Residential Multi-Family lots may have two (or more) units if over 6,000 sf; where if less than 6,000 sf only one unit is allowed (22.10.110.C).
7. Specific density standards for RMF and certain RSF lots were evaluated per South County Area Plan Section 22.112.080.
8. Minimum lot size for an existing, legally created lot to establish a SF residence is 1,750 sf (22.10.110.C).
9. Minimum newly created lot size in AG zoning is 20 acres (22.22.040).
10. Minimum newly created lot size in RR zone is 5 acres (22.22.050).
11. Minimum newly created lot size in RS is 1 acre (22.22.060).
12. Minimum newly created lot size in RSF is 6,000 sf (22.22.070), except where density is dictated by the Area Plan standards
13. Development potential for parcels with split zoning will be evaluated per Section 22.02.020.D, and/or in consult with County staff
14. If parcel is on septic, the minimum lot size is 1 acre.

Verification Method

Assessor's Information Accepted (AI)

1. Parcels described as "vacant", with no assessed improvement value, and no address, were accepted as vacant.
2. Parcels in RSF, RS, and RR zones, assessed for improvement value, less than 6,000 square feet in size, and not described by the Assessor as having more than one unit, were assumed to have one residential unit as a maximum.
3. Parcels in RSF, RS, and RR zones, assessed for improvement value, more than 6,000 sf in size but less than twice minimum lot size, and not described as having more than one unit, were assumed to have one residential unit, with potential for a secondary unit, and no potential for further subdivision, unless the parcel is on a septic system. If parcel is on a septic system, parcels under 2 acres do not have the potential for a secondary unit. In addition, parcels on septic systems can not be subdivided to less than 1 acre.
4. Residential parcels in single-family zoning described as "Duplex", "SFR w/2nd Living", "SFR w/Sec" etc. were assumed to have legally permitted secondary dwelling units, and were evaluated for further development potential on that basis.



5. We assumed that parcels in zones other than OS that are designated as open space by the assessor (and assessed as such) have a deed restriction limiting any development.

Online Data Verification (OD)

1. Where the Assessor Land Use description was unclear (ie, "Government", "Residual Land Segment", "Misc Imps"), we reviewed the parcel online using County GIS aerial, permit tracking system, and/or Google Earth to verify use and development status.
2. All CR and CS parcels were checked online against aerials and the County's permit tracking system.
3. Because residential MF density on CR-zoned lots is determined by Conditional Use Permit, the density is discretionary. Secondary units are not allowed on CR-zoned lots.
4. Well parcels located within residential lots, smaller than 1,500 sf in size, are assumed to have no development potential. Most are probably not separate legal lots and were created to assess a well site that may or may not still contain a functioning well.

Field Check (FC):

Field checking was used to verify construction or demolition on parcels where the data suggested that a building permit was in effect, but the aerial did not show it (or vice versa). In some cases, the field review did not clarify the uses on site because it was not possible to tell the use of some structures from the public right-of-way.

County Land Uses

- AG (Agriculture); 3 parcels
- CR (Commercial Retail); 126 parcels
- CS (Commercial Services); 26 parcels
- OP (Office Professional); 34 parcels
- OS (Open Space); 2 parcels
- PF (Public Facilities); 9 parcels
- REC (Recreation); 605 parcels
- RL (Rural Lands); 2 parcels
- RMF (Residential Multi-Family); 526 parcels
- RR (Residential Rural); 277 parcels
- RS (Residential Suburban); 835 parcels

RSF (Residential Single-Family); 2044 parcels

There are also parcels in several land use categories with split zoning that are grouped separately. These were addressed individually per County requirements.



ENGINEERING ANALYSIS

Wallace Group requested the water use records from the District for the past two years to assist in the benefit unit analysis. This information was linked to the database and sorted based on existing development. The analysis was completed on developed parcels since vacant parcels do not have water use.

There were some anomalies and assumptions in the data that required the data to be either set aside and not used or slightly altered. These anomalies or assumptions that were made are as follows:

- Not all records were provided to Wallace Group. Since water records are tied to an account number, the account number changes if residents change. Therefore, if the account number changed within the past two years, this information was not provided to Wallace Group
- Some records were provided to Wallace Group that still did not contain two full years of data. Any records that did not have two full years of water data were not included in the analysis.
- Some water records were altered slightly to adjust water usage that did not appear to be correct. Example, typical bi-monthly water usage of 120 units. One of the month's readings was 1,137 units. This is most likely a data entry error and was altered to a typical bi-monthly reading.

Once all the viable parcels were either altered or non-viable parcels were removed from the selection, Wallace Group separated the database according to the following categories:

- Residential Single Family (RSF) – All parcels that had one RSF home, regardless of lot size or zoning.
- Residential Single Family – 2 (RSF-2) – All parcels that have two RSF units on a parcel, regardless of lot size or zoning. These second units are either granny units or two RSF houses. These parcels were identified to have permitted second units. Those parcels that may have a granny unit or second dwelling unit on the parcel that is not permitted is not accounted for.
- Residential Single Family >2 (RSF>2) – All parcels that have more than two RSF units on the same parcel. This includes triplex units. This does not include identified residential multi-family parcels such as apartments or condominiums.
- Residential Multi-Family (RMF) – All identified residential multi-family parcels such as apartments and condominiums. These are individual units that typically do not have any land attributed to the parcel. They typically have a central common area for several units, which has its own parcel number.
- Commercial (Com) – All non-residential parcels providing services to the community. This includes office and professional, retail services, industrial, etc.



- Other – There are other parcels, such as public facilities, schools, parks, churches, open space, etc. These parcels will ultimately need to be assessed on a case by case basis and therefore, were not analyzed at this time. Once a method of assessment is identified, these parcels will be re-evaluated to determine their proper assessment.

Water Use Analysis Results

Over 2,700 RSF parcels were evaluated ranging in size from 0.10 acres to 18.20 acres. When the water usage for all viable parcels is plotted against parcel size, the amount of water used by any one parcel of the same size was vastly different. For example: A parcel of 0.10 acres used between 23 gpd on the low end and 1,080 gpd on the high end. The delta between high and low got even greater for larger parcels. For the 1.00 acre parcels, on the low end, parcels used only 25 gpd. On the other hand, there were parcels that used up to almost 3,800 gpd. Exhibit 1 depicts the water usage for all viable RSF parcels against the parcel size. For clarity, Exhibit 1 only shows parcels up to 10 acres. There are few parcels greater than 10 acres and these parcels all used less water than any 10 acre parcels. This analysis does not provide any concrete method for assessment, except that it can be determined that the larger parcels have the "potential" for significantly more water use.

The next step in the analysis used the law of averages to determine how much water RSF parcels of the same size were using. The parcel sizes were rounded to the nearest 0.10 of an acre and grouped together. The water use was averaged for both 2007 and 2008 and plotted on Exhibit 2. The parcels were graphed for every 0.10 acre up to 1.0 acre. Parcels between 1.10 and 2.00 acres were grouped together and parcels greater than 2.00 acres were grouped together. This grouping method gave a large enough sample size that reduces the impacts from those few parcels that used small or large quantities of water and skewed the results.

This analysis provided interesting results. The average water use consistently increased as parcel size increased excluding those parcels greater than 1.0 acre. Parcels greater than 1.0 acre used approximately the same amount of water or less water than 1.0 acre parcels. The average consumption for 2007 and 2008 were similar for each grouping, except 0.70 acres. There was a difference of 110 gpm between 2007 water consumption and 2008 water consumption for 0.7 acre parcels.

Although the water usage continuously goes up, there are three obvious breaks in the water consumption.

- Group 1: Includes parcel sizes of 0.10, 0.20, and 0.30 acres. These parcels used between 370 and 480 gpd.
- Group 2: Includes parcel size of 0.40, 0.50, and 0.60 acres. These parcels used between 680 and 740 gpd.
- Group 3: Includes parcel sizes 0.7 acres and greater. These parcels used between 760 and 950 gpd.

Once this was established, Wallace Group then broke down the other remaining categories to see how their water usage compared to the RSF. Their water usage was again broken into the same 0.10 acre parcel groupings. The law of averages is more skewed for this analysis since the quantity of the parcels was not nearly as



high as they are for RSF. In some instances, there were only one or two parcels that fell into certain groupings. Exhibit 3 provides the analysis of the various categories versus parcel size for 2007 and 2008. Exhibit 4 provides the same information as Exhibit 3, except years 2007 and 2008 are averaged to simplify the exhibit.

The following is an analysis for each category:

- RSF-2: There were only 32 parcels analyzed for this category. If parcel size was not considered, parcels with two RSF units used between 135 and 3,600 gpd. Again, this range is too great to extract any useful information from it. The largest groupings were for 0.20, 1.00, 1.10 to 2.00, and greater than 2.00 acre parcels. These groupings had five or more parcels that provided a better average water consumption. For parcels 0.2 and 1.10 to 2.00 acres, the water consumption for RSF and RSF-2 were identical. For parcels greater than 2.00 acres, the water consumption for RSF-2 was higher than RSF parcels. For 1.00 acre parcels, the water consumption for RSF-2 was significantly higher than the RSF parcels.
- RSF>2: There are only 14 parcels that are RSF with more than 2 parcels on the lot. Their water consumption ranged between 443 and 2,101 gpd. On the smaller lots (under 0.50 acre), the water use was higher than the RSF parcels. For parcels between 0.50 and 1.00 acres, the water use was the same or less than the RSF parcels. For parcels between 1.10 and 2.00 acres, the water consumption was higher. For parcels greater than 2.00 acres, the water consumption was approximately the same as RSF.
- RMF: The RMF lots are parcels that really don't have any land attributed to the parcel. Therefore, these parcels were compared to parcels with 0.10 acres. There were 206 RMF parcels analyzed. The RMF parcels used approximately 200 gpd. This is 170 gpd less than 0.10 acre RSF parcels.
- Commercial: There were 47 commercial parcels analyzed. Again, the water consumption was vastly different, 18 gpd versus 8,600 gpd. There was one anomaly with commercial that was dependent on use of the parcel. There are several fairly large commercial parcels that had storage uses and therefore, used little water as compared to other parcels of the same size. These uses should be considered as a separate condition than typical commercial uses since parcels with storage units will most likely not convert their use. For the most part, parcels 0.90 acre and below use approximately the same quantity of water as their corresponding RSF parcel size. Parcels 1.00 acre and parcels greater than 2.0 acres used significantly more water than their corresponding RSF parcels. Parcels between 1.10 and 2.00 acres used about the same as RSF parcels. However, if the parcels with storage units are taken out of the average, then the water consumption for commercial parcels becomes significantly higher than RSF parcels.

Basis of Assessment

The data that is extracted from this analysis can be manipulated in many ways than were analyzed for this report at this time. Since the number of parcels in each category is not the same, the potential for discrepancies is higher. Again, not all parcels were included in the analysis and therefore, the entire District is not represented. With this knowledge, Table 1 provides a summary of recommendations for proceeding with the basis of assessment.

Table 1. Basis of Assessment

Group	Zoning	Description	Parcel Sizes Included	Recommendations
1	RSF	All residential parcels with one unit	0.10, 0.20, 0.30	Basis of Assessment, 1.0 Equivalent Benefit Unit
			0.40, 0.50, 0.60	1.60 benefit units
			0.70 & Greater	2.00 benefit units
2	RSF-2	Second Unit	<1.0	0.00 benefit units
			1.0 & Greater	0.30 benefit unit for second unit
3	RSF>2	Greater than two units	All Parcel Sizes	0.30 benefit unit for each additional unit beyond two units
4	RMF	Multi-family units w/ no land (i.e. condos, apartments, mobile homes)	<0.1	0.70 benefit units per unit
5	Com	Commercial Services, Office Professional, Commercial Retail	0.10, 0.20, 0.30	1.0 benefit unit
			0.40, 0.50, 0.60	1.60 benefit units
			0.70 to 1.99	3.00 benefit units
			2.00 & Greater	6.00 benefit units
Special Cases				
6	Mini Storage	Storage units with physical storage structures	All Parcel Sizes	0.50 benefit units
7	School	School	0.10, 0.20, 0.30	1.00 benefit unit
			0.40, 0.50, 0.60	1.60 benefit units
			0.70 to 2.00	3.00 benefit units
			2.01 & Greater	3.00 benefit units plus 1.0 benefit unit for every acre above 2.0 acres
8	Church	Church	0.10, 0.20, 0.30	1.00 benefit unit
			0.40, 0.50, 0.60	1.60 benefit units
			0.70 to 2.00	2.00 benefit units
			2.01 & Greater	2.00 benefit units plus 1.0 benefit unit for every acre above 2.0 acres
9	Recreational	Parks, Fields, etc	All Parcel Sizes	1.00 benefit units per acre
10	Government	Government (i.e. Fire Station, Police, etc)	0.10, 0.20, 0.30	1.00 benefit unit
			0.40, 0.50, 0.60	1.60 benefit units
			0.70 to 2.00	3.00 benefit units
			2.01 & Greater	3.00 benefit units plus 1.0 benefit unit for every acre above 2.0 acres
11	PF w/ No Irrig.	Public Facilities with no irrigation (i.e. wells, tanks, lift stations)	All Parcel Sizes	0.00 benefit units
12	PF w/ Irrig.	Public Facilities with irrigation	All Parcel Sizes	1.00 benefit units per acre
13	OS w/ No Irrig. Potential	Open Space w/ no potential for irrigation (i.e. medians, parking lots, etc)	All Parcel Sizes	0.00 benefit units
14	OS w/ Irrig.	Open Space w/ existing or potential for irrigation	All Parcel Sizes	1.00 benefit units per acre
15	WWTP	Wastewater Treatment Plant		1.00 benefit unit

Exhibit 1
Residential Single Family

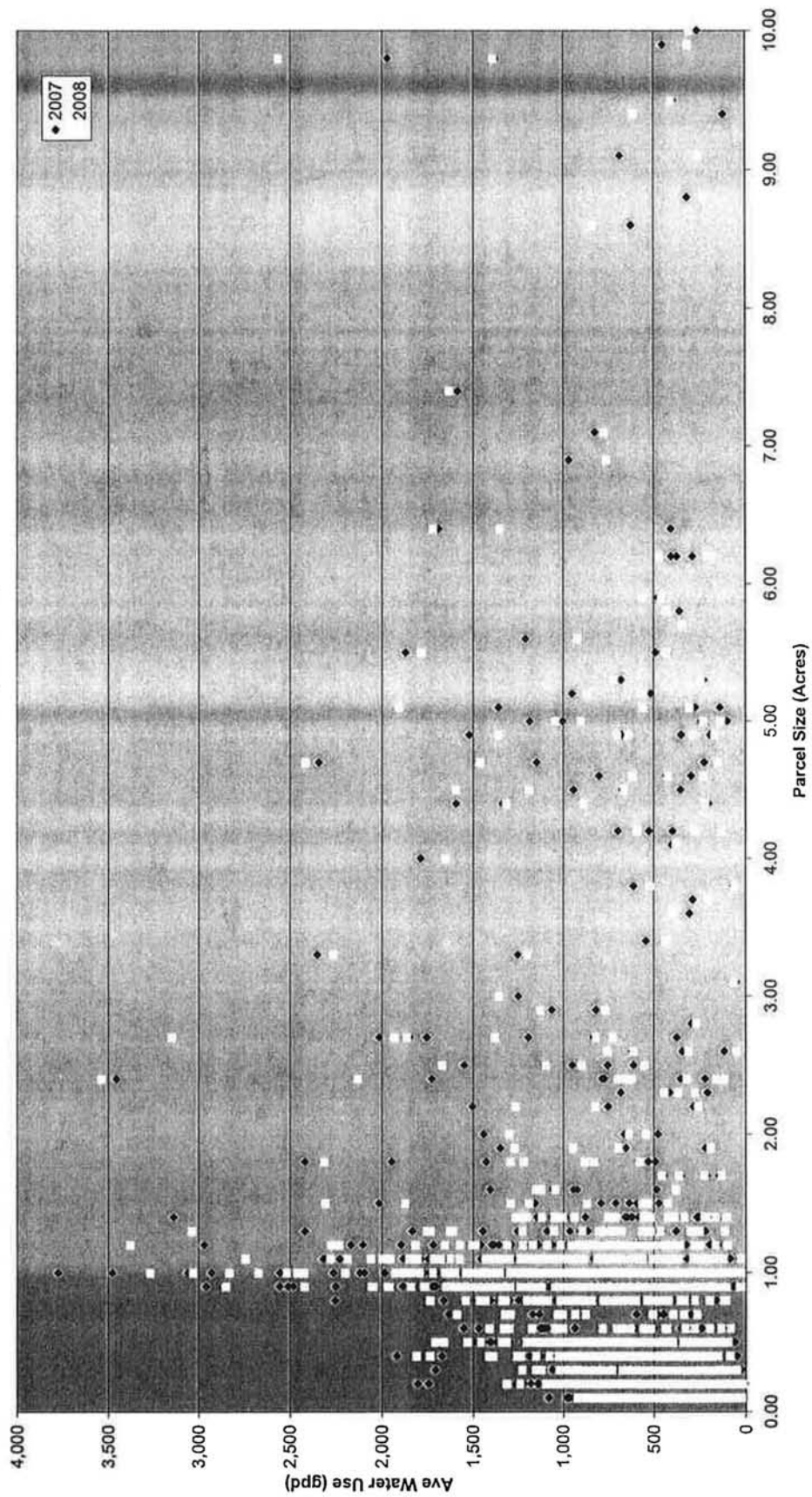
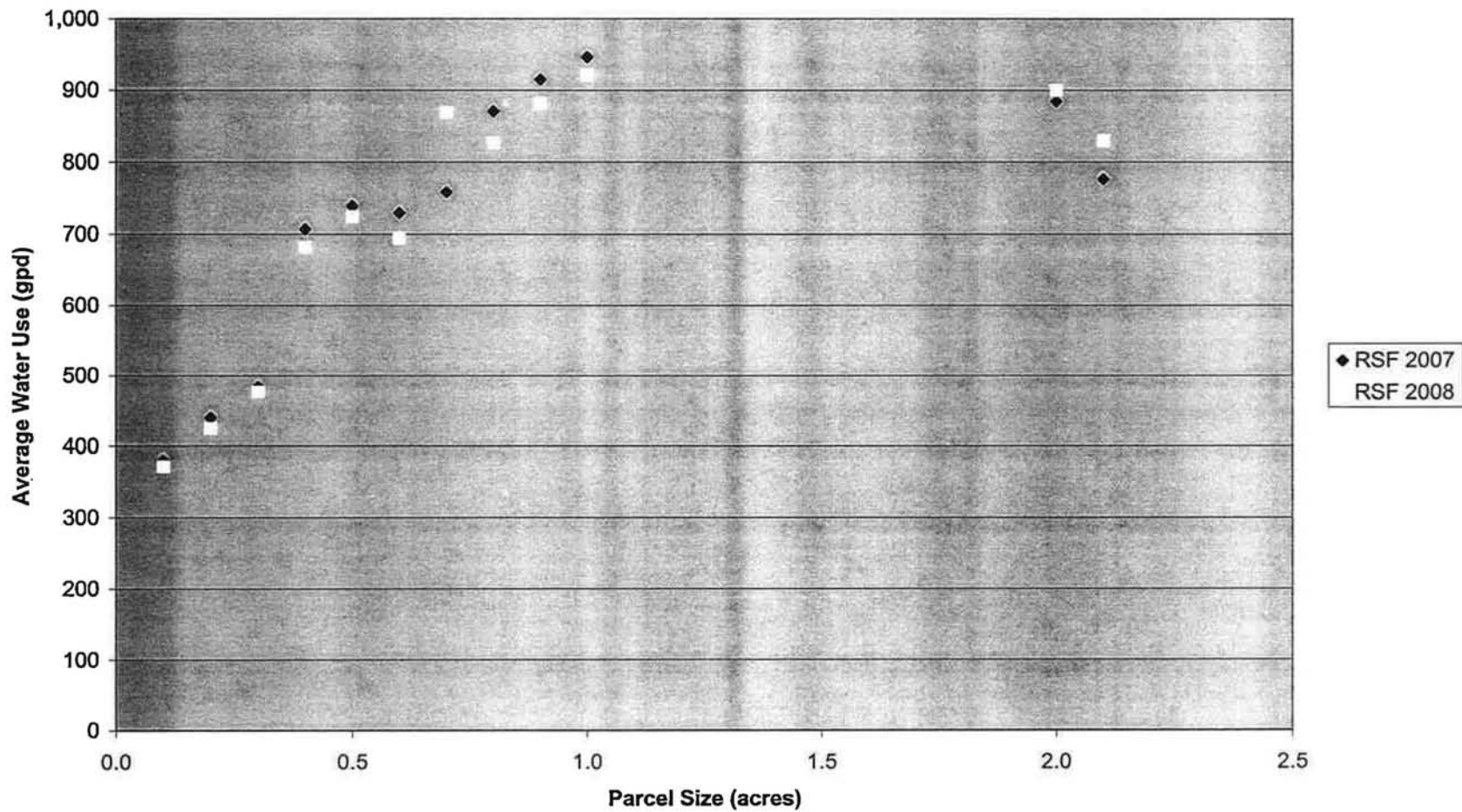
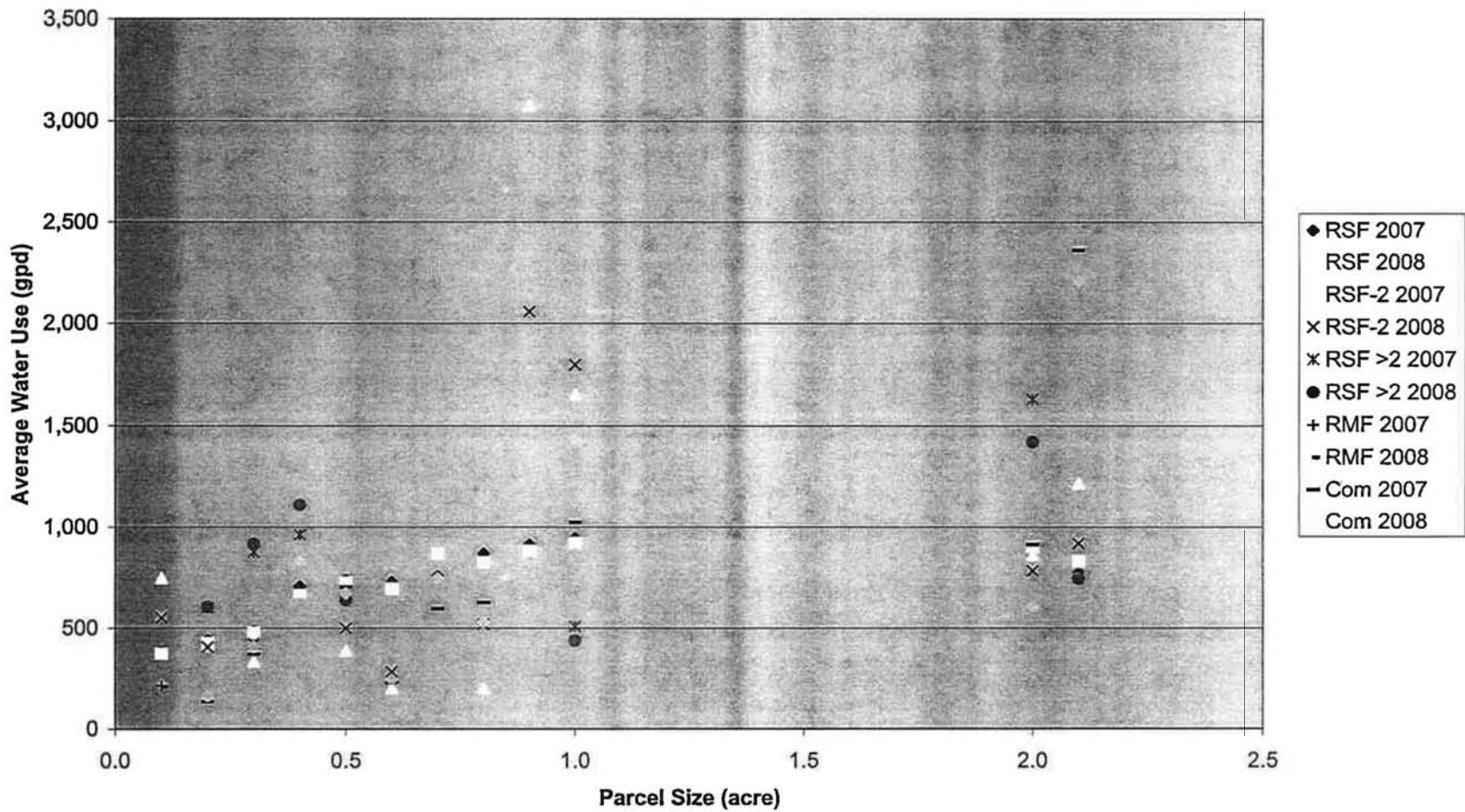


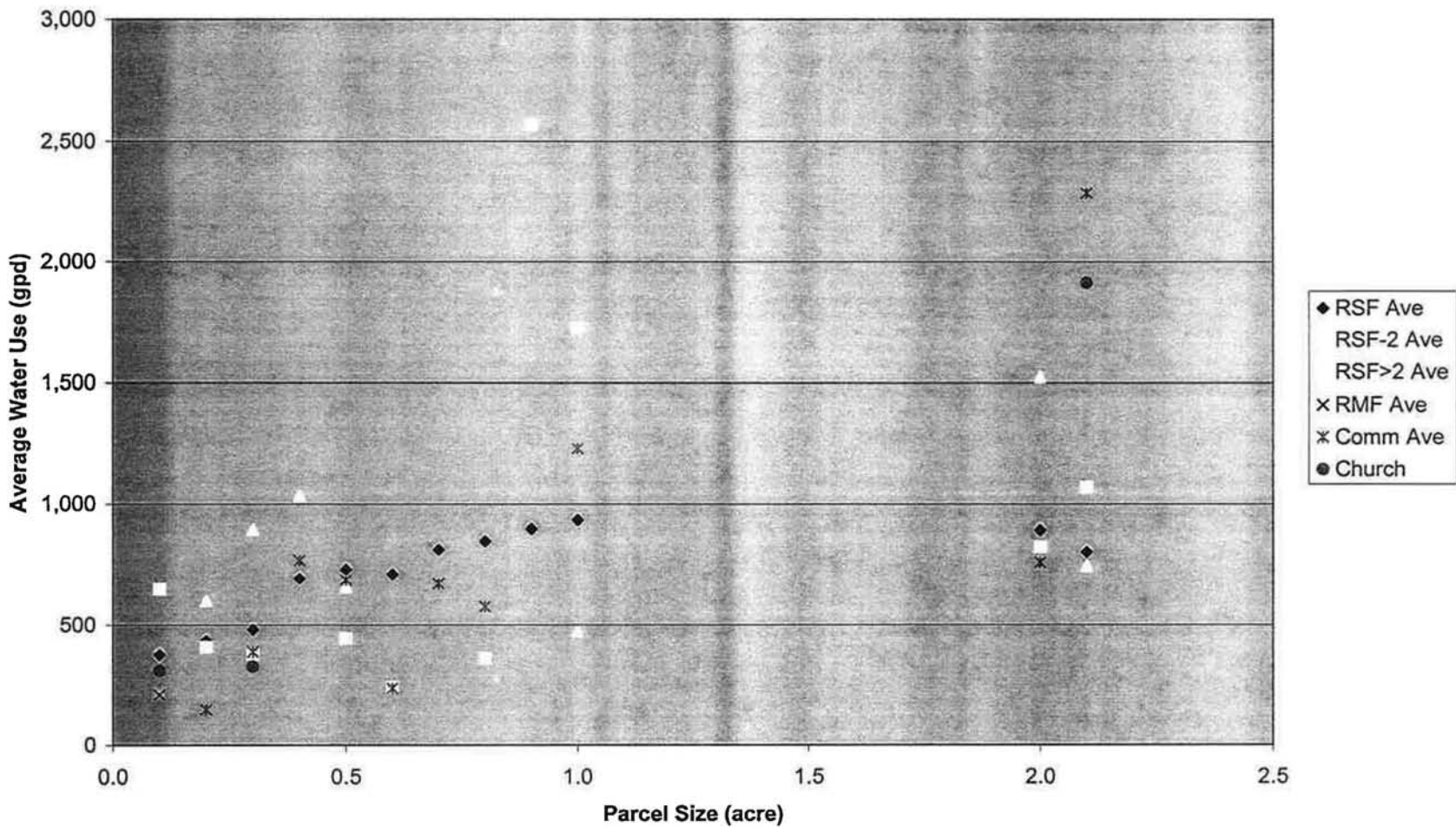
Exhibit 2
Average Water Use vs Parcel Size
Residential Single Family Onle



**Exhibit 3
Average Water Use vs Parcel Size
2007 and 2008**



**Exhibit 4
Average Water Use vs Parcel Size
Average of 2007 and 2008**



**Nipomo Community Services District
Basis of Assessment**

Group	Sub Group	Land Use Category	Description	Parcel Sizes Included (acres)	Basis of Assessment
1	A	Residential with 1 unit (RSF, RMF, RR, RS, RL)	All residential parcels with one unit	<= to 0.35	1.00 Equivalent Benefit Unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65	2.00 benefit units
2	A	Residential with 2 units	Second Unit on a residential property	<=1.00	0.00 benefit units
	B			>1.00	0.30 benefit unit for second unit
3	A	Residential with 3 or More units	Residential properties with greater than two units (includes triplex, fourplex. Does not include subdividable RSF parcels)	All Parcel Sizes	0.30 benefit unit for each additional unit beyond two units
4	A	Residential Multi-Family (RMF)	Multi-family units w/ no land (i.e. condos, apartments, mobile homes)	All Parcel Sizes	0.70 benefit units per unit
5	A	Commercial (CS, OP, CR)	Commercial Services, Office Professional, Commercial Retail	<= to 0.35	1.00 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	3.00 benefit units
	D			>2.00	6.00 benefit units
6	A	Mini Storage	Storage units with physical storage structures	All Parcel Sizes	0.50 benefit units
7	A	School	School	<= to 0.35	1.00 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	3.00 benefit units
	D			>2.00	3.00 benefit units plus 1.0 benefit unit for every acre above 2.0 acres
8	A	Public Mtg	Includes churches, public meeting halls, excluding schools	<= to 0.35	1.00 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	2.00 benefit units
	D			>2.00	1.00 benefit units per acre
9	A	Recreational	Parks, Fields, etc	All Parcel Sizes	1.00 benefit units per acre
10	A	Government	Government (i.e. Fire Station, Police, etc)	<= to 0.35	1.00 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	3.00 benefit units
	D			>2.00	3.00 benefit units plus 1.00 benefit unit for every acre above 2.00 acres
11	A	Public Facilities w/ No Irrigation	Public Facilities with no irrigation (i.e. wells, tanks, lift stations)	All Parcel Sizes	0.00 benefit units
12	A	Public Facilities w/ Irrigation	Public Facilities with irrigation	All Parcel Sizes	1.00 benefit units per acre
13	A	Open Space w/ No Irrigation	Open Space w/ no irrigation (i.e. medians, parking lots, etc)	All Parcel Sizes	0.00 benefit units
14	A	Open Space w/ Irrigation	Open Space w/ existing irrigation	All Parcel Sizes	1.00 benefit units per acre
15	A	WWTP	Wastewater Treatment Plant	All Parcel Sizes	1.00 benefit unit
16	A	Agriculture	Agriculture parcels using NCSD water	All Parcel Sizes	1.00 benefit units per acre
17	A	Hotel	Hotel or Bed & Breakfast	All Parcel Sizes	0.40 benefit units per room
18	A	Exempted Parcels	Parcels with their own water source	All Parcel Sizes	0.00 benefit units

Golden State Water Company Basis of Assessment

Group	Sub Group	Land Use Category	Description	Parcel Sizes Included (acres)	Basis of Assessment
1	A	Residential with 1 unit (RSF, RMF, RR, RS, RL)	All residential parcels with one unit	<= to 0.35	1.00 Equivalent Benefit Unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65	2.00 benefit units
2	A	Residential with 2 units	Second Unit on a residential property	<=1.00	0.00 benefit units
	B			>1.00	0.30 benefit unit for second unit
3	A	Residential with 3 or More units	Residential properties with greater than two units (includes triplex, fourplex. Does not include subdividable RSF parcels)	All Parcel Sizes	0.30 benefit unit for each additional unit beyond two units
4	A	Residential Multi-Family (RMF)	Multi-family units w/ no land (i.e. condos, apartments, mobile homes)	All Parcel Sizes	0.70 benefit units per unit
5	A	Commercial (CS, OP, CR)	Commercial Services, Office Professional, Commercial Retail	<= to 0.35	1.00 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	3.00 benefit units
	D			>2.00	6.00 benefit units
6	A	Agriculture	Agriculture parcels using GSWC water	All Parcel Sizes	1.00 benefit units per acre
7	A	School	School	<= to 0.35	1.00 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	3.00 benefit units
	D			>2.00	3.00 benefit units plus 1.00 benefit unit for every acre above 2.00 acres
8	A	Government	Government (i.e. Fire Station, Police, etc)	<= to 0.35	1.00 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	3.00 benefit units
	D			>2.00	3.00 benefit units plus 1.00 benefit unit for every acre above 2.00 acres
9	A	Public Facilities w/ No Irrigation	Public Facilities with no irrigation (i.e. wells, tanks, lift stations)	All Parcel Sizes	0.00 benefit units
10	A	Open Space w/ No Irrigation	Open Space w/ no irrigation (i.e. medians, parking lots, etc)	All Parcel Sizes	0.00 benefit units
11	A	Open Space w/ Irrigation	Open Space w/ existing irrigation	All Parcel Sizes	1.00 benefit units per acre
12	A	Exempted Parces	Parcels with their own water source	All Parcel Sizes	0.00 benefit units

Rural Water Company Basis of Assessment

Group	Sub Group	Land Use Category	Description	Parcel Sizes Included (acres)	Basis of Assessment
1	A	Residential with 1 unit (RSF, RMF, RR, RS, RL)	All residential parcels with one unit	<= to 0.35	1.00 Equivalent Benefit Unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65	2.00 benefit units
2	A	Residential with 2 units	Second Unit on a residential property	<=1.00	0.00 benefit units
	B			>1.00	0.30 benefit unit for second unit
3	A	Commercial (CS, OP, CR)	Commercial Services, Office Professional, Commercial Retail	<= to 0.35	1.0 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	3.00 benefit units
	D			>2.00	6.00 benefit units
4	A	Hotel	Hotel or Bed & Breakfast	All Parcel Sizes	0.40 benefit units per room
5	A	School	School	<= to 0.35	1.00 benefit unit
	B			>0.35 & <= 0.65	1.60 benefit units
	C			>0.65 & <= 2.00	3.00 benefit units
	D			>2.00	3.00 benefit units plus 1.0 benefit unit for every acre above 2.0 acres
6	A	Recreational	Parks, Fields, etc	All Parcel Sizes	1.00 benefit units per acre
7	A	Public Facilities w/ No Irrigation	Public Facilities with no irrigation (i.e. wells, tanks, lift stations)	All Parcel Sizes	0.00 benefit units
8	A	Public Facilities w/ Irrigation	Public Facilities with irrigation	All Parcel Sizes	1.00 benefit units per acre
9	A	Open Space w/ No Irrigation	Open Space w/ no irrigation (i.e. medians, parking lots, etc)	All Parcel Sizes	0.00 benefit units
10	A	Open Space w/ Irrigation	Open Space w/ existing irrigation	All Parcel Sizes	1.00 benefit units per acre
11	A	WWTP	Wastewater Treatment Plant		1.00 benefit unit
12	A	Exempted Parces	Parcels with their own water source	All Parcel Sizes	0.00 benefit units

Woodlands Mutual Water Company Basis of Assessment

Group	Sub Group	Land Use Category	Description	Parcel Sizes Included (acres)	Basis of Assessment
1	A	Residential (RSF)	All residential parcels with one unit	All Parcel Sizes	1.00 Equivalent Benefit Unit
2	A	Residential Multi-Family (RMF)	Multi-family units	<0.10	0.70 benefit units per unit
3	A	Commercial (CS, OP, CR)	Commercial Services, Office Professional, Commercial Retail	<=1.00	1.50 benefit units
	B			>1.00 & <=3.50	3.00 benefit units
	C			>3.50	6.00 benefit units
4	A	Open Space	Open Space, Golf Course, Buffer Lots, Park & Ride	All Parcel Sizes	0.00 benefit units
5	A	Public Facilities	All Public Facilities	All Parcel Sizes	0.00 benefit units
6	A	Resort	Resort	All Parcel Sizes	0.25 benefit units per room
7	A	Trilogy Center	Monarch Club (Trilogy Center)	>8.00	90.0 benefit units

TO: MICHAEL S. LEBRUN
GENERAL MANAGER

MSL

FROM: PETER V. SEVCIK
DISTRICT ENGINEER

DATE: DECEMBER 9, 2011

AGENDA ITEM
E-4
DECEMBER 14, 2011

AWARD CONTRACT FOR SUPERVISORY CONTROL AND DATA ACQUISITION SYSTEM UPGRADE PROJECT

ITEM

Award professional services contract for Supervisory Control and Data Acquisition (SCADA) System Upgrade Project to Tesco Controls, Inc. in the amount of \$318,648, authorize change order contingency in the amount of \$32,000 and amend FY 2011/2012 Budget [RECOMMEND BY MOTION AND ROLL CALL VOTE APPROVE RESOLUTION AUTHORIZING STAFF TO EXECUTE PROFESSIONAL SERVICES CONTRACT IN THE AMOUNT OF \$318,648 WITH TESCO CONTROLS, INC., AUTHORIZING CHANGE ORDER CONTINGENCY IN THE AMOUNT OF \$32,000 AND AMENDING FY 2011/2012 BUDGET].

BACKGROUND

The District utilizes IPAACtm, a proprietary SCADA system human machine interface (HMI), to remotely monitor the operation of the District's water supply wells, water storage tanks, sanitary sewer lift stations and wastewater treatment plants. The system utilizes an interface that lists Inputs/Outputs in a tabular format only (not graphical), provides limited control capability, and has limited ability for historical data storage and retrieval. Changes to the system typically require custom programming that must be outsourced. The District recognized the limitations of the existing SCADA system and began developing a plan in late 2009 to upgrade the system.

The District contracted with AECOM to prepare the technical requirements for the SCADA Upgrade Project in order to facilitate the future integration of the Supplemental Water Project and the Southland WWTF Upgrade into the District's SCADA Upgrade Project. The technical requirements were incorporated into a Request for Proposals (RFP) for the procurement of system integrator services to implement the SCADA Upgrade Project. The Board authorized the circulation of the RFP at the September 28, 2011 Board meeting.

The District received three responses to the RFP as follows: Barry Wehmiller Design Group in the amount of \$299,816, Prousys, Inc., in the amount of \$427,000, and Tesco Controls, Inc., in the amount of \$382,796. All of the proposals were based on the use of the software and computer hardware specified in the RFP.

The proposals were evaluated based on the criteria listed in the RFP, including demonstrated competence and qualifications, project understanding, project experience, proposed methodology, responsiveness to the RFP and proposed compensation. The proposals from Barry Wehmiller Design Group and Prousys did not include a detailed project methodology description and schedule that demonstrated an understanding of the project. In addition, the Barry Wehmiller Design Group proposal excluded the installation of the additional instrumentation required by the RFP. Tesco's proposal demonstrated a clear understanding of the project, included a detailed schedule, included a detailed labor cost schedule, and provided proof of the experience and support required to best meet the District's needs. AECOM recommended (Attached) and staff concurs that the District should award the SCADA Upgrade Project professional services contract to Tesco Controls, Inc.

AGENDA ITEM E-4
DECEMBER 14, 2011

While Tesco's proposal was based on the hardware and software specified in the RFP, Tesco indicated that the District could reduce the cost of the project by using alternate software and hardware. The alternate solution offers cost reductions in the areas of hardware, software licensing and software integration/implementation. The total alternate solution project cost would be \$318,648 (Attached). The alternate solution would provide the overall SCADA system functionality requested by the District in the RFP at a considerable lower initial cost. On-going software maintenance costs are also anticipated to be lower with the alternate solution. Staff recommends that the District implement the alternate solution suggested by Tesco.

FISCAL IMPACT

The FY 11-12 Budget includes \$300,000 for the SCADA Upgrade Project. The funding is allocated as follows:

Fund Number	Fund Description	Amount	Percentage
Fund 700	Water Fund	\$140,000	46.7%
Fund 710	Town Sewer Fund	\$120,000	40.0%
Fund 830	Blacklake Sewer Funded Replacement	\$ 40,000	13.3%

The cost to implement the Tesco alternate solution is as follows:

Alternate Solution Implementation Cost	\$318,648
Contingency	\$ 32,000
Total Project Cost	\$350,648

A budget amendment in the amount of \$50,648 is required to provide the additional funding required for the project. The funding will be allocated as follows:

Fund Number	Fund Description	Amount	Percentage
Fund 700	Water Fund	\$23,653	46.7%
Fund 710	Town Sewer Fund	\$20,259	40.0%
Fund 830	Blacklake Sewer Funded Replacement	\$ 6,736	13.3%

STRATEGIC PLAN

Strategic Plan Goal 1.3 – Upgrade and Maintain Water Distribution and Storage Works
Strategic Plan Goal 2.1 – Efficiently Operate Collection, Treatment and Disposal Works

RECOMMENDATION

Staff recommends that the Board, by motion and roll call vote, approve Resolution 2011-XXXX SCADA System Upgrade authorizing staff to execute a professional services contract for the SCADA Upgrade Project with Tesco Controls, Inc. in the amount of \$318,648, authorizing a change order contingency in the amount of \$32,000 and amending the FY 2011/2012 Budget.

ATTACHMENTS

- AECOM Letter dated November 22, 2011
- TESCO Letter dated November 22, 2011
- Resolution 2011-XXXX SCADA System Upgrade



AECOM
1194 Pacific Street
Suite 204
San Luis Obispo CA 93401
www.aecom.com

805 542 9840 tel
805 542 9990 fax

November 22, 2011

Mr. Peter Sevcik, PE
District Engineer
Nipomo Community Services District
PO Box 326
Nipomo, CA 93444

Dear Mr. Sevcik,

Review of Proposals received for SCADA System Upgrade Services

AECOM has reviewed the proposals received in response to the Nipomo Community Services District (District) Request for Proposals (RFP) for SCADA System Upgrade Services, released October 5, 2011. Proposals were received from Tesco Controls, Inc., ProUsys, and Barry Wehmiller Design Group. The proposals were evaluated based on the criteria listed in the RFP, including demonstrated competence and qualification, project understanding, project experience, proposed methodology, responsiveness to the RFP, and proposed compensation. Tesco's proposal demonstrates a clear understanding of the Project and provides proof of the experience and support required to best meet the District's needs. We recommend that the District proceed in negotiations with Tesco for a professional services contract for this Project.

Please feel free to contact us should you have any questions or wish to discuss. We look forward to continuing work with the District through implementation of this Project.

Sincerely,

Eileen Shields, PE
Project Manager

Efreem Sorkin, PE
Project Engineer

**NIPOMO COMMUNITY SERVICES DISTRICT
REQUEST FOR PROPOSALS**

**SCADA System Upgrade Project Services
Proposed Compensation and Payment Detail**

Item No.	Work Description	Qty.	Price
1.	District Office: Furnish and install new SCADA System at the District Office. Provide all hardware, software, programming, material, labor, equipment, and engineering, complete and in place for the lump-sum price of	L.S.	\$ 189,760.00
2.	Wells: Provide all hardware, software, programming, material, labor, equipment, and engineering for eight (8) wells, complete and in place for the lump-sum price of	L.S.	\$ 26,850.00
3.	Lift Stations: Provide all instrumentation hardware, software, programming, material, labor, equipment, and engineering for thirteen (13) lift stations, complete and in place for the lump-sum price of	L.S.	\$ 48,195.00
4.	Miscellaneous Sites: Provide all instrumentation hardware, software, programming, material, labor, equipment, and engineering for Standpipe, Quad Tank, Blacklake WWTF, Southland WWTF, Willow Road Pressure Reducing Station, Misty Glen Pressure Reducing Station, complete and in place for the lump-sum price of	L.S.	\$ 19,475.00
5.	Removal and Disposal: Remove all deleted and replaced components and equipment and dispose of if unwanted by NCSD, complete in place for the lump-sum price of	L.S.	\$ 5,520.00
6.	Factory Acceptance Test: Furnish all material, labor, and equipment for the SCADA system Factory Acceptance Test, complete in place for the lump-sum price of	L.S.	\$ 4,500.00
7.	Field Test: Furnish and install all material, labor, and equipment for the SCADA system Field Test, complete in place for the lump-sum price of	L.S.	\$ 3,371.00
8.	21-day Acceptance Test: Furnish and install all material, labor, and equipment for the SCADA system 21-day Acceptance Test, complete in place for the lump-sum price of	L.S.	\$ 0.00
9.	3-day Operator Training: Furnish all material, labor, and equipment for the SCADA system 4-day Operator Training, complete in place for the lump-sum price of	L.S.	\$ 6,125.00
10.	O&M Manuals: Provide O&M Manuals and software documentation, complete in place for the lump-sum price of	L.S.	\$ 6,000.00
11.	Record Drawings: Provide Instrumentation Record Drawings, complete in place for the lump-sum price of	L.S.	\$ 6,000.00
12.	Spare Parts: Provide spare parts, complete in place for the lump-sum price of	L.S.	\$ 2,852.00
PROPOSED NOT-TO-EXCEED EXPENDITURE TOTAL			\$ 318,648.00

**NIPOMO COMMUNITY SERVICES DISTRICT
REQUEST FOR PROPOSALS**

**SCADA System Upgrade Project Services
Proposed Compensation and Payment Summary**

DATE: November 22, 2011

NAME OF FIRM: Tesco Controls

NAME OF PRINCIPAL: Shain Thomas

NAME OF TEAM LEADER: Shain Thomas

ADDRESS: 8440 Florin Road Sacramento CA 95828

PHONE: (916) 395-8800 FAX: (916) 429-2817

E-MAIL: sthomas@tescocontrols.com

PROPOSED NOT-TO-EXCEED EXPENDITURE TOTAL: \$ 318,648.00



Signature of Principal Authorized to Sign for Firm

This proposal shall be valid for 90 Days from the date of Signature.

ATTACHMENT #2

**NIPOMO COMMUNITY SERVICES DISTRICT
RESOLUTION NO. 2011-XXXX**

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE NIPOMO COMMUNITY SERVICES DISTRICT
AUTHORIZING CONTRACT FOR THE SUPERVISORY CONTROL AND DATA ACQUISITION UPGRADE
PROJECT WITH TESCO CONTROLS INC. AND AMENDING FY 2011/2012 BUDGET**

WHEREAS, the Water and Sewer Master Plan and the Strategic Plan have outlined the need for funding the upgrade and maintenance of the District's SCADA system; and

WHEREAS, the SCADA System Upgrade Project will provide the ability to monitor and control aspects of the District's water and wastewater systems to minimize system outages, interruptions and sewer system overflows as well as ensure compliance with regulatory requirements; and

WHEREAS, on December 14, 2011, the Nipomo Community Services District ("District") Board of Directors proposes to authorize the additional funds required to implement the SCADA Upgrade Project and has proposed a budget amendment of \$50,648; and

WHEREAS, on June 22, 2011 the District adopted its FY 11-12 Budget; and

WHEREAS, the District budgeted \$300,000 in Funds #700, #710 and #830 for the SCADA Upgrade Project; and

WHEREAS, the District desires to amend the FY 11-12 Budget to allocate funds for the Project's completion.

NOW THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED BY THE NIPOMO COMMUNITY SERVICES DISTRICT BOARD OF DIRECTORS AS FOLLOWS:

- 1) The District Board of Directors does hereby direct District staff to execute a contract for the SCADA Upgrade Project with Tesco Controls, Inc. in the amount of \$318,648 and authorizes the General Manager to approve change orders for a not-to-exceed total aggregate amount of \$32,000.
- 2) The District Board of Directors does hereby authorize the appropriation of \$23,653 from Reserves to Budget Account #700 (Water Capacity Charges Fund), the appropriation of \$20,259 from Reserves to Budget Account #710 (Town Sewer Capacity Charges Fund) and the appropriation of \$6,736 from Reserves to Budget Account #830 (Blacklake Sewer Capacity Charges Fund) to fund the SCADA Upgrade Project.

On the motion of Director _____, seconded by Director _____ and on the following roll call vote, to wit:

AYES:
NOES:
ABSENT:
CONFLICTS:

The foregoing resolution is hereby adopted this 14th day of December 2011.

Jim Harrison,
President, Board of Directors
Nipomo Community Services District

ATTEST:

Michael S. LeBrun
Secretary to the Board
and General Manager

Jon S. Seitz,
General Counsel