

## Newsletter for the San Luis Obispo / Central Coast Branch • September 2007

### SEPTEMBER 2007 MEETING: *The Challenges of Managing Groundwater in the Chino Basin*

Chino Basin is an enormous underground reservoir, with storage capacity estimated at over 6 million acre-feet. The Chino Basin Watermaster has been assigned the responsibility to manage the Basin and to enforce the provisions of the Chino Basin Watermaster Judgment, by the court.

The Basin serves as the principal water source for one of the nation's fastest growing regions. At "build out" the population of the 225 square mile region located at the intersection of Los Angeles, San Bernardino, Riverside and Orange Counties, will be in excess of over 1.2 million. In addition to the population growth, Chino Basin is also home to a thriving agricultural industry with sizeable industrial and business communities.

At the September luncheon, Kenneth R. Manning, CEO and Chino Basin Watermaster, will discuss the diverse issues facing the Chino Basin and how he has implemented a consensus based plan to deal with recharge, total dissolved solids (TDS), volatile organic compounds (VOC's) and the introduction of recycled and desalted product water as a significant source of new yield. Mark your calendars and be sure to join us on Thursday, September 20 at AJ Spurs in Grover Beach.

### SEPTEMBER 2007 MEETING

**LOCATION:**

**AJ Spurs**  
1760 El Camino Real  
Grover Beach, CA

**DATE & TIME:**

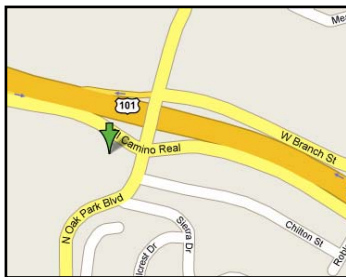
Thursday, Sept 20  
12:00 pm (Noon)

**MENU:**

Food will be your choice of Tip Serlion, BBQ Chicken or Vegetarian Plate and will include a beverage, soup, beans, salsa, salad, rice pilaf, bread and a rootbeer float.

**RESERVATIONS:**

Please sign up by 1:00 pm Friday, September 14<sup>th</sup>, at the Branch web site [www.ASCESLO.org](http://www.ASCESLO.org). For questions, contact Nola Engelskirger at 805-788-2100 or by email at [nengelskirger@co.slo.ca.us](mailto:nengelskirger@co.slo.ca.us). The cost is \$20 for members or guests and \$10 for student members.



### PRESIDENTS PERSPECTIVE: *Infrastructure Report Card*

As appears to be the custom with outgoing Branch presidents, I wanted to begin my final President's Perspective article by reflecting back on the past year. I have thoroughly enjoyed my time as president and the opportunity to serve our organization and the profession. There were noteworthy items from this past year which I thought would be appropriate to highlight:

- Continuation and expansion of our fledgling scholarship program, including sponsorship by local firms and individuals
- Rockfall Mitigation Symposium, co-sponsored with Cal Poly and the Central Coast Chapter of AEG
- Two webinars for professional development
- Several litter pickup days as part of our Branch's participation in the Adopt-A-Highway program
- Order of the Engineer ceremony with participation by the student SCE chapter
- Tour of the newly upgraded Lopez water treatment plant
- Continuation of high quality web presence and monthly newsletter, with additional sponsors added to the professional directory
- Twelve successful and well attended Branch luncheons

I am particularly grateful for the efforts of my fellow officers this past year. I was humbled by their commitment, hard work and professionalism in keeping things going this year. It was great fun spending time with them at the monthly officer's meetings, often "letting our hair down," which is getting more difficult for me these days (Rogaine anyone?).

In my first two articles from a year ago, I sought to bring attention to the condition and funding outlook for our state and local infrastructure, an issue that has been getting more attention in the media lately with the catastrophic collapse of the I-35W Bridge over the Mississippi River in Minneapolis on August 1. I had planned to highlight this topic in my final article as a pretext to gaining support for creating an infrastructure report card for our County. Coincidentally, in the past couple weeks, Malcolm McEwen, a project manager at Boyle Engineering and our Branch's outgoing assistant newsletter editor, approached me about the same topic. After a brief discussion, Malcolm took the initiative to gather resource information and correspond with ASCE national about State Public Affairs Grant (SPAG) opportunities. A certain amount of SPAG funds are budgeted by ASCE national each year to, among other things, support state

Check out the photos taken at recent branch meetings on the SLO Branch website at [www.ASCESLO.org/Gallery](http://www.ASCESLO.org/Gallery)

(Continued on page 5)

## MEET THE MEMBER - DANIEL PARKER-KING

Meet Dan Parker-King - our new Assistant Editor. He's one of those rare San Luis Obispo natives who DID NOT ATTEND CALPOLY. Instead, he went to UC Davis where he studied Mechanical Engineering and completed his senior project working on a solar-powered air-conditioner.

However, his days as an ME were numbered. Perhaps it was the summer job at the UC Davis Quail Ridge Reserve (a peninsula formed by the flooding of Berryessa Valley and the creation of the Berryessa Reservoir, where Dan would routinely consume over 2 gallons of water per day while working in the 100<sup>o</sup>+ heat), or the summer spent traveling around Europe (both East and West). Whatever the reasons, when he returned to SLO to look for work, he found little to interest him in the available Mechanical Engineering jobs.

"In an ME job my contribution may have amounted to changing a part by ¼ inch. That seemed insignificant compared to the work I do now as a Civil Engineer with RRM Design. I enjoy seeing the results of my work."

He had been coming to ASCE luncheons for a while and was recruited to work on the San Luis Obispo Branch Newsletter by Jeff Werst. He worked with Jeff while working for RRM on stormwater improvements in Santa Margarita. The improvements include an enhanced wetland to reduce peak flow rates through town and a "bioswale" to reduce pollutant loads. Dan is interested in doing more "green" work with RRM and is working towards his LEED accreditation.

He's looking forward to working on the public outreach side of ASCE, noting that he served as editor-in-chief



for his high school yearbook and that he counts web design as one of his hobbies. He enjoys many sports, including soccer, softball and disc golf.

## MEET THE PROJECT - FEASIBILITY OF WATER BANKING IN THE PASO ROBLES GROUNDWATER SUBBASIN

San Luis Obispo County is investigating the feasibility of implementing a water banking project in the Paso Robles Groundwater Subbasin. Courtney Howard (President-Elect, SLO ASCE) is managing this project. The Bookman-Edmonston Division of GEI Consultants is performing the feasibility analysis.

The County is evaluating alternatives for its excess allocation of State Water as a part of completing a County-wide Master Water Plan. There is also concern that the County could lose the rights to about 16,000 acre-feet per year of its excess State Water allocations if it cannot show beneficial use of the supply.

One alternative for utilizing this water may be via a groundwater banking program in the North County. Previous studies have shown that water levels in the Paso Robles groundwater subbasin have declined in some areas rather dramatically, while rising water levels have been experienced in other areas. The biggest change in groundwater flow patterns is the hydraulic gradient east of Paso Robles, along the Highway 46 corridor, which has steepened in response to greater pumping by the increasingly concentrated development of rural ranchettes, vineyards, golf courses, and municipal supply wells. Previous studies have also shown deterioration of water quality in specific location, including increases in TDS, chlorides, and nitrates.

With grant funding from the Proposition 50 Integrated Regional Water Management Program, the County is utilizing a model of the Paso Robles Groundwater Basin to evaluate the physical feasibility of banking water in the Basin. Additional feasibility criteria include the availability of a water supply for banking, and the ability to recover and deliver the banked water to end users.

A preliminary engineering report was completed in November 2006. Recharge areas are being investigated near Shell Creek/Camatta Creek and Lower San Juan Creek, near Creston, and near the city of Paso Robles. Hydrologic evaluations and engineering analyses of these sites will determine which site may be best suited to store up to 1,500 acre-feet of excess State Water per month. A draft final report is due in late October. Please visit the Integrated Regional Water Management Plan quicklink at [www.SLOCountyWater.org](http://www.SLOCountyWater.org) for more information, or contact Courtney Howard to be notified of upcoming opportunities to participate.

### MEMBER CORNER

Do you know of a Branch member's recent accomplishments worthy of mentioning in next month's newsletter? If so, contact Syllas Cranor at (805) 781-5260 or e-mail at [scranor@co.slo.ca.us](mailto:scranor@co.slo.ca.us).

## NACIMIENTO WATER PROJECT COMPLETES CONSTRUCTION CONTRACT BIDDING

The San Luis Obispo County Flood Control and Water Conservation District (District) announced that the construction contract bidding has successfully been completed for the Nacimiento Water Project (Project). The total value for the low-bids received for the five construction bidding packages came in at \$123.1M, or 12-percent below the engineer's estimates. The total Project budget, which includes costs for administration, engineering, environmental, right-of-way, construction, and construction management, has been revised to equal about \$176M. The District's Board of Supervisors awarded four of the five construction contracts on August 28, 2007, and the fifth award on September 11, 2007. By a factor of six, this Project is the single largest design and construction endeavor ever managed and implemented by the District's Public Works Department.

The District is located along the central coast of California. Project implementation includes a 45-mile raw water conveyance system to deliver 15,750 acre-feet annually from Lake Nacimiento to participating agencies. The District acquired in 1959 from Monterey County, the owner of the reservoir, the rights to 17,500 acre-feet per year (AFY). Ten-percent, or 1,750 AFY, is left in the reservoir for lakeside uses. The reservoir lies entirely in San Luis Obispo County.

The Environmental Impact Report was adopted by the District's Board in January 2004, and Participants (communities within the County who executed Water Delivery Entitlement Contracts with the District) were organized in that same year. The Participants in the Project are Paso Robles at 4,000 AFY, Templeton Community Services District at 250 AFY, Atascadero Mutual Water Company at 2,000 AFY, City of San Luis Obispo at 3,380 AFY, and County Service Area 10A (Cayucos) at 25 AFY. There is 6,095 AFY of reserve water available for use by the existing Participants or through contract to new Participants within



the boundary of the County. The Participants have judged the Project investment as the best local, economical, and reliable supplemental water supply project to sustain their communities and strengthen their existing water portfolios which includes groundwater and surface water.

Preliminary design began in 2005 with final design starting in 2006. The District's Board issued a call for bids in May 2007 on the five construction packages which are summarized in the following table. Construction will commence in late 2007, and be completed in late 2010.

*(Continued on page 4)*

BID PACKAGE	DESCRIPTION	APPARENT VALUE	APPARENT LOW BIDDER
1 – Intake	20' dia shaft x 180' deep (pump wet well). 48" tunnel x 600' long. 48" stainless steel sloping intake with 7 portals.	\$20.8M	James W. Fowler Company Dallas, Oregon
2 – Facilities	3,500 hp Intake Pump Station (PS). 2,000 hp Santa Ysabel PS. 1,200 hp Rocky Canyon PS. 850,000 gallon (gal) Camp Roberts Tank. 850,000 gal Rocky Canyon Tank. 300,000 gal Cuesta Tunnel Tank. SCADA system.	\$25.6M	Mountain Cascade Livermore, CA
3 – Pipeline North	22 miles. 36" to 24" welded steel. 2 horizontal directional drilling (HDD) river crossings.	\$38.4M	Teichert Construction Sacramento, CA
4 – Pipeline Central	11 miles. 24" to 18" ductile iron pipe. 4 HDD river crossings (steel pipe).	\$22.0M	Whitaker Contractors Paso Robles, CA
5 – Pipeline South	12 miles. 18" to 12" ductile iron pipe.	\$16.3M	Southern California Pipeline Tustin, CA

## NACIMIENTO WATER PROJECT COMPLETES CONSTRUCTION CONTRACT BIDDING (CONT)

*(Continued from page 3)*

The successful bidding of the Project is, in part, attributed to the contracting strategy developed by Black & Veatch, the design engineer, and the District. Varying the pipeline contract sizes allowed both large and small pipeline contractors to compete for Project work, and specifying alternative pipe materials (steel or ductile iron) increased competition among pipe suppliers. The result was a good turnout on bid day, and competitive pricing for the Project. As an example, Bid Packages 3 and 4 both had nine bids submitted; a quantity unheard of in recent years. The District attributes the number of bidders to the Black & Veatch Contractor Outreach Program. During the six months leading up to the call for bids, Black & Veatch conducted a series of three workshops for contractors, subcontractors and suppliers interested in bidding the Project. The workshops were

conducted in San Luis Obispo for local participants and simultaneously broadcast live on the Internet for out-of-area participants.

The District's construction manager is Jacobs Engineering Group, Inc. They have begun to mobilize staff to an office near Paso Robles. Notices to Proceed will be issued to the contractors in late September and early October 2007.

Overall, the Nacimiento Water Project, under the Direction of the County's Public Works Department, has been extremely successful since the District's Board gave staff direction to implement the Project in 2004. The Project is still on the original schedule established in 2004. While the Project is over the \$150M budget established in 2004, the increase of \$26M is judged very respectable by the District, especially since over this three year

period the construction industry has realized rapid price escalations.

Additional information can be obtained by contacting the Nacimiento Project Manager by phone at (805) 781-5252, or by e-mail at [jhollenbeck@co.slo.ca.us](mailto:jhollenbeck@co.slo.ca.us), or by visiting the Project's web site at [www.slocounty.ca.gov/PW/NacWP.htm](http://www.slocounty.ca.gov/PW/NacWP.htm).

~ John R. Hollenbeck, P.E., M-ASCE,  
Nacimiento Project Manager

### ASCE MEMBER BENEFITS

Stay on the cutting edge of the civil engineering profession! Visit [www.asce.org/membersonly](http://www.asce.org/membersonly) and log in to take advantage of these and other members-only services:

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- Salary Survey
- Online Directory
- ASCE Career Connections
- ACE News and CE magazine
- Member Benefits

## INFRASTRUCTURE REPORT CARD COMMITTEE INVITATION

Dear Infrastructure Professional,

To those of us in the business of building, operating, and maintaining public infrastructure in San Luis Obispo County, the recent bridge collapse in Minneapolis, Minnesota was an unpleasant reminder that the nation - as a whole - is falling behind in its efforts to maintain its existing public works.

In 2006 the ASCE and APWA presented a "Report Card" on California Infrastructure, giving an overall grade of C-, and estimating the cost of annual investment to be \$37 billion. ([www.ascecareportcard.org](http://www.ascecareportcard.org)) This report was an effective tool in raising awareness of the importance and condition of the State's public works.

The local chapter of the ASCE is inviting YOU to participate in an effort to produce and publicize a Report

Card for San Luis Obispo County. The purpose of the Report Card will be to build public support for infrastructure renewal.

We expect to be following the guidance in "ASCE Regional Report Cards: A Guide to Grading Your Community's Infrastructure." ([www.asce.org/files/pdf/govrel/Local\\_Report\\_Cards\\_Guide\\_12-04.pdf](http://www.asce.org/files/pdf/govrel/Local_Report_Cards_Guide_12-04.pdf))

Our initial Report Card meeting will be Wednesday, September 26, at noon, in the Public Works Department Conference Room, Room 207, County Government Center, Corner of Palm and Osos Streets. (Thirty minute brown bag lunch meeting.)

The goal for the first meeting will be to: 1. Assess interest and resources (i.e., how much of our time will be devoted to this effort), 2. Assign each participant an agency to query to

determine the availability of the required information, 3. Recruit additional participants and gain "buy-in" from the affected agencies.

The second meeting will be centered around scoping the process and setting a timeline.

I encourage you to participate as much, or as little, as is comfortable for you. You may want to help, but may be able to only give a couple of hours. Or perhaps you may be able to provide a much larger block of time, which would be great.

Please let me know if you're (a) interested in the project, (b) able to participate, even just a little, (c) want to attend the first meeting, and (c) if you know of someone else who did not receive this email - but should. Please call if you have any questions.

~Malcolm McEwen  
(805)542-9840 x104

## PRESIDENTS PERSPECTIVE (CONT)

*(Continued from page 1)*

lobbying efforts, including the creation and distribution of infrastructure Report Cards. Malcolm has scheduled an informational "kick-off" meeting to begin the process of preparing an infrastructure Reprt Card for our county, and all who have an interest in this are invited to join us. The 30 minute "brown bag" lunch meeting will be held on Wednesday, September 26 at noon in the County Public Works Department conference room, Room 207 of the County Government Center at the corner of Palm and Osos Streets in San Luis Obispo. As can well be imagined, preparation of the initial Report Card will be a substantial undertaking and we are hoping to get as many volunteers from our Branch and APWA to help as possible. We expect to be following the guidance in "ASCE Regional Report Cards: A Guide to Grading Your Community's Infrastructure." ([www.ASCE.org/files/pdf/govrel/Local\\_Report\\_Cards\\_Guide\\_12-04.pdf](http://www.ASCE.org/files/pdf/govrel/Local_Report_Cards_Guide_12-04.pdf)). Recent state and county report cards for our Region are available at the following website: [www.ASCECAReportCard.org](http://www.ASCECAReportCard.org).

If you have any questions or comments, feel free to contact me or Malcolm McEwan.

Lastly, I would like to thank every one that supported and participated in our Branch activities this past year, most especially my fellow officers. This has been a memorable and rewarding experience. I am confident that Kari Wagner will do a great job as Branch president this year, and I am equally confident about the officers she has gathered to join her. I only hope she has as much fun as I did.

~ Jeff Werst

## ENGINEERS WITHOUT BORDERS - SAN LUIS OBISPO

Engineers Without Borders – San Luis Obispo has finally started up! Information on our meetings is below:

**When:** Second Wednesday of every month (Starting September 12th, 2007)

**Where:** Wallace Group Redwood Conference Room (612 Clarion Court, SLO)

**Time:** 12:00-1:00pm (You are welcome to bring your lunch)

At our first meeting we will introduce officers, discuss what membership in EWB-SLO includes, and present a case study on a project another professional chapter has worked on.

Please feel free to visit the following websites for more information on Engineers Without Borders:

- [www.ewb-slo.org](http://www.ewb-slo.org) (EWB-SLO: under construction)
- [www.ewb-usa.org](http://www.ewb-usa.org) (EWB-USA)
- [www.ewb.calpoly.edu](http://www.ewb.calpoly.edu) (EWB-Cal Poly)

If you have any questions, please feel free to contact Natalie Erigish, Secretary, at [Secretary@ewb-slo.org](mailto:Secretary@ewb-slo.org) or (805) 547-5605.

## OTHER LOCAL EVENTS

*If you have an event you would like posted at no cost, contact Syllas Cranor at 781-5260 or at [scrantor@co.slo.ca.us](mailto:scrantor@co.slo.ca.us).*

The local chapter of the **American Public Works Association** meets on the second Wednesday of odd months. For details, contact Jay Walter at [jwalter@slocity.org](mailto:jwalter@slocity.org).

The Central Coast Branch of the **Institute of Transportation Engineers** holds monthly meetings throughout the tri-county area. Contact Richard Marshall at 781-5252 or [rmarshall@co.slo.ca.us](mailto:rmarshall@co.slo.ca.us) for details.

The Central Coast Branch of the **California Land Surveyors Association** usually meets the second Thursday of each month. Contact Rochelle Vierra at 549-3461 or [Rochelle\\_Vierra@dot.ca.gov](mailto:Rochelle_Vierra@dot.ca.gov) for more information.

Cal Poly's **Society of Civil Engineers (SCE)** welcomes local professionals to its regular meetings held alternate Wednesdays at 7:00 pm in Room 13-118. For further information, contact Greg Ray ([gray@pismobeach.org](mailto:gray@pismobeach.org)) or Kari Wagner ([kariw@WallaceGroup.us](mailto:kariw@WallaceGroup.us)).

The Central Coast Chapter of the **International Code Council** meets the first Thursday of the month at Margie's Dinner. Contact Sylvia Aldana at 781-4671 or [saldana@co.slo.ca.us](mailto:saldana@co.slo.ca.us) for information.

The **American Institute of Architects** meets the 3rd Wednesday of each month at Vista Grande Restaurant (Cal Poly). For information, call Jeff Emrick at 549-8658.

The **Central Coast Geological Society** meets every second Tuesday. For information, contact Lou Blanck at 542-4626.

## ASCE BRANCH OFFICERS

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