



The Dirt from SHN:

Ridgewood Ranch Project

Young's Dam Fish Ladder

Message From CEO Jeff Nelson

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Ridgewood Ranch Project



The 5,000 acre Ridgewood Ranch, located 7 miles south of Willits, California is the historic home of the legendary racehorse and American icon, Seabiscuit, and is owned by the Golden Rule Church Association. A conservation easement was considered, with it's commitment to save Seabiscuit's home for the public to enjoy and permanently protect the Ranch's creeks, oak woodlands, redwood groves and wildlife habitat.

SHN worked in close collaboration with the Golden Rule Church Association and the Mendocino Land Trust to provide background surveys for a series of conservation easements, which will limit develop-



ment and protect resource values through a permanent deed restriction. The easement will also conserve the productive forest and farmland, enabling the landowners to continue their excellent stewardship while ensuring economic sustainability.

Significant historical buildings and cultural resources, including Seabiscuit's barn, Charles Howard's home, Northern Pomo Indian sites, early settler gravesites, and an early 20th century hydroelectric system, will be protected. Managed public access to the conservation area will be permanently ensured for historical tours, conservation research, school and youth group activities, and community gardening projects. Thousands have toured Seabiscuit's home and enjoyed its rich history and pastoral beauty. Many more will be able to share this opportunity in the future.

Young's Dam Fish Ladder Construction Project

After 7 years of planning, grant funding, and engineering design, the Young's Dam Project was completed in April, 2008. The project is designed to benefit adult and juvenile salmonids in the Scott River system by providing low flow passage over Young's Dam. The site is located just south of the community of Etna, California.

The project was developed in response to concerns by the Department of Fish and Game that Young's Dam and its former fish ladder were not providing adequate passage for fish, especially during low-flow periods. The current dam was constructed in the 1920s, and has been a seasonal barrier to adult and juvenile Chinook salmon, Coho salmon, and Steelhead.

The development of the project included the construction of a new fish ladder and boulder step weirs to provide access to adult and juvenile anadromous fish over Young's Dam. Fish movement over the dam has been improved with the implementation of the project. A new head-gate control was installed to provide better control of irrigation water and reduce the potential for water take above water right allocations.



Message from Jeff Nelson, CEO: Clients ask us why they should use a Quality-Based Selection (QBS) process when choosing an engineering firm.

My quick answer is, it makes sense and saves money. That's usually the beginning of a long conversation about project economics. What it boils down to is this: Choosing the low-bid often results in a poor-quality project. The technical expertise provided by a high-quality engineer is critical to determining a project's lifecycle, costs, and the quality of the completed project. Choosing the most qualified professional for the job results in innovative design and problem solving, fewer permitting and construction delays, and a quality project.

SHN has always focused on providing quality engineering related services for a reasonable cost. Contractors have told us they like bidding on SHN designs because they know the project will have fewer change orders and delays. Some contractors actually increase their bids as much as 10- 15%, depending on the engineering firm involved.

In the current construction economy, escalation increases construction costs by approximately 8% a year. Every incomplete document that necessitates a re-submittal to the regulatory or permitting agency results in costly delays before construction can even begin. Every improperly prepared engineering design document results in increased change orders and project maintenance costs. Bottom line? Engineering fees average approximately 10% of the total construction cost. Saving 10% on design fees only saves 1% of the total costs up front, but could result in huge increases due to scheduling delays and poor-quality design.

So what I end up saying to clients is, "Hiring SHN will result in a better quality product for less money overall."

Willits Office News...

493 S. Main Street
Willits, CA 95490
707-459-4518 n FX 707-459-1884



From Tom Herman, Regional Manager:

Plant Operations staff at the City of Willits Wastewater Treatment Plant has a good reputation for generating a high quality effluent from their existing aging plant which serves the City of Willits, as well as, the neighboring Brooktrails community. However, City staff has been faced with the challenges of discharging the volumes of effluent generated to a small nearby creek. SHN and the City have been working for several years with various regulatory agencies to develop a new project that will allow the City to discharge in compliance with all the regulatory requirements surrounding the operation of this plant.

A significant milestone of this project was reached in April, when Spiess Construction Co. Inc. based in Santa Maria, California, began construction of the \$3.7 million City of Willits Stage 1 improvements to the plant. This is the first of three planned stages to upgrade the City's existing treatment plant being designed by SHN, with improvements totaling approximately \$20 million. SHN team members from all its service disciplines and regional offices have worked with a number of qualified subconsultants, to design energy efficient and environmentally conscious state-of-the-art improvements for the City. SHN is also providing grant and loan funding administration assistance, resident project representation, and project testing and inspection.

Stage 1, involves the construction of a new two-story concrete and CMU block headworks building and influent pump station to replace existing outdated and inefficient facilities. The new structure will house a new motor control center, large submersible pumps, inclined spiral screens, grit classifier, grit separator, and grit pumps. Monorail hoists will assist operators in the maintenance of equipment. Updated electrical and control systems will include package control modules, a PLC based computer SCADA system, and an Emergency Electric Generator and 1000-gallon Diesel Fuel Storage Tank. Construction of Stage 1 is scheduled to be completed in December, 2008 integrating the new systems with the remaining plant systems.



Stages 2 & 3 are currently being designed by SHN in anticipation of bidding in late Summer 2008. Stage 2 will add a UV disinfection system, new aeration basins, blowers and clarifiers, nutrient removal, and other new equipment. Stage 2 improvements will also include modifications to existing structures such as a new laboratory work area in the existing operations building. When Stage 2 is complete, the improved mechanical plant will have an average wet weather flow capacity of 7.0 million gallons per day (mgd).

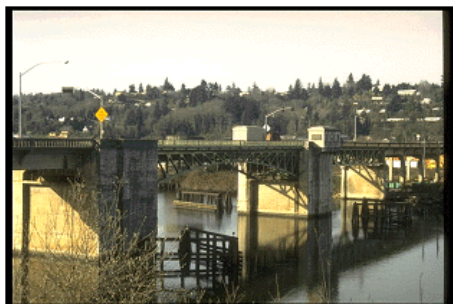
Stage 3 is comprised of a new irrigation pump station, adjacent to a 30 surface acre enhanced wetland storage lagoon, and new outfall improvements. The wetland will supply additional natural treatment to the plant effluent and has the advantage of providing 90 acre-feet of storage to allow the City to manage its operations through direct discharge when creek flows allow and irrigation to surrounding lands as another means of disposal. It is also intended to provide significant volumes of stored water for future tertiary treatment and reuse of the reclaimed water to offset demands for potable water, which is of significant concern to the City.

Coos Bay Office News...

275 Market Avenue
Coos Bay, OR 97420
541-266-9890 n FX 541-266-9496



From Steve Donovan, Regional Manager: SHN Coos Bay is pleased to announce that Walter White, PLS and Orion George, GIT, have joined the Coos Bay office. Walter White brings 15 years of survey experience to our group. Orion George graduated from Humboldt State University in May 2006 with a BS in Geology. While pursuing his Master's Degree, Orion will contribute to projects in an on-call capacity.



New Project:

Isthmus Slough Sanitary Sewer Crossing – Pressure Line; City of Coos Bay, Oregon.

SHN has been selected by the City of Coos Bay to design the under slough crossing by directional drilling construction for replacement of an existing sanitary sewer pressure main. This construction is currently envisioned to involve an inverted bore, approximately 1,000 lineal feet in length, for an 8-inch diameter HDPE pipeline. The purpose of the project is to allow the City to relocate the forcemain to avoid conflicts with the eventual reconstruction of the Isthmus Slough Bridge, and to address line breaks that have occurred on either side of the slough crossing. The project will be coordinated with the City of Coos Bay and numerous other agencies including DEQ,

Eureka Office News...

812 W. Wabash Avenue
Eureka, CA 95501
707-441-8855 n FX 707-441-8877



From Greg Williston, Regional Manager: SHN Eureka is full of pride and extends congratulations to Erin McDonald for being chosen as the 2008 Outstanding Environmental Resources Engineer Graduate by the Humboldt State University Environmental Engineering program. This honor was bestowed on her at the annual American Society of Civil Engineers (ASCE) North Coast Branch awards banquet. Erin's hard work in school is evident in awards like this and her work ethic and knowledge base has shown at SHN. Erin was involved in SHN's student internship program and is now a full time employee in Eureka's Environmental Services Division.

The Eureka office was the site of an American Concrete Institute (ACI) Field Technician Grade 1 seminar and certification class. Twenty-two individuals attended, including outside consultants, Humboldt State University staff, County of Humboldt staff, and seven SHN'ers.

As part of SHN's community service activities, the Eureka office took part in the Greater Eureka Chamber of Commerce Student Ambassador program. This program provides a local business sponsor to a high school junior who is trained and then challenged in business skills competition for scholarship monies. Judged events include interview skills and public speaking. SHN provided many hours of volunteer time including driving students in the Rhododendron Parade in an SHN pick-up.



It's a beauty!

SHN has completed the design, construction management and materials testing of a retaining wall and road reconstruction in Del Norte County that is worth visiting. This project is on the Klamath River between the U.S. Highway 101 bridge and the coast.



Shane Beach is a member of the Geology Department in the Eureka Region. When I asked Shane how the Timber Harvest Plan (THP) business was going, he rattled off some statistics that were rather impressive. In the past two years Shane has worked on and written geologic reports for more than thirty THP's for both private landowners and commercial lumber companies. His primary commercial clients include Green Diamond Resources, Sierra Pacific Industries, Roseburg Forest Products, and the Pacific Lumber Company.

Shane has reviewed over 6,000 acres of timberland during these evaluations and specifically addressed at least 60 "road points" and over 200 miles of existing and proposed roadways. The road points correspond to a specific road failure (land slide), bridge crossing, culvert site or low water ford that required special attention. If you have questions regarding THP's or rural road development, Shane is your man.

SHN extends a big thank you to Lisa Stromme, Alli Kelly, Mark Denning, Bill McGoldrick, and Erin McDonald. This group coordinated, set up, and manned SHN's booth for the Plan It Green event in Arcata on Friday, April 4th and Saturday, April 5th.



Plan It Green is a local group of engineers, planners, builders, contractors, architects, and other professionals dedicated to green community planning and design.

SHN has been practicing green community planning and design even before names like "sustainable development" and "green building" became popular. In fact, we traced it back to when we first started our firm (a lot of this is just good engineering judgment) and we have coined the phrase "Smart Design Since 1979."

Redding Office News...

350 Hartnell Avenue, Suite B
Redding, CA 96002
530-221-5424 n FX 530-221-0135



From Mark Chaney, Regional Manager: By the time this newsletter comes out, many college students will have completed their finals and will be gearing up for a relaxing summer. This includes two outstanding students that work for the Redding Survey Department; Kelly Streich and Aaron Lloyd. Kelly has been with SHN for two years and is completing course work at Shasta College where she is focusing on engineering and surveying. She recently passed the California Land Surveyor In-Training (LSIT) test while working part-time and going to school! Great job Kelly. Aaron came to SHN during our recent merger with Seinturier & Associates and is also finishing up his classes at Shasta College. He is considering further course work at Fresno State in geomatics. Both Kelly and Aaron are outstanding students and are a great asset to the SHN Survey Group. We hope they continue in their education and future professional work in our industry.



CONSULTING ENGINEERS & GEOLOGISTS, INC.
350 Hartnell Ave., Suite B, Redding, CA 96002-1875

June 2008 NEWSLETTER

Client Focused Solutions

HR CORNER



Happy February/ March/April Anniversaries!

John Aveggio, 15 yrs	Joe Aufdermaur, 13 yrs
Cindy Wilcox, 12 yrs	Michael Palmer, 8 yrs
David Gonzales, 8 yrs	Aimee Weber, 7 yrs
Aaron Melody, 6 yrs	Fred Charles, 3 yrs
Bill DeMello, 2 yrs	Alli Kelly, 2 yrs
John Franklin, 1 yr	Jason Baugh, 1 yr

A Welcome to SHN's New Employees

Larry Buzbee, Willits Office
Steve Peckham, Willits Office
Michael Perry, Willits Office

Promotions

John Franklin—Civil Department Head

Congratulations

Erin McDonald
Environmental Engineering Student of the Year!

COMMUNITY SERVICE

A big thank you goes out to Bill DeMello, Robin Montgomery, Becky Davis, Mike and Debbie Veach, Reed Williston, Courtney Barry and Greg Williston who got up early on a cold Saturday morning to help build a park with 400 other Eureka volun-



teers. It was quite a scene. A total make-over of Eureka's oldest city park included a new play structure, painting of the existing site facility building, basketball court and benches, several new benches were built and stained, two new picnic tables were built and stained, lots of concrete was mixed in wheel barrels, a couple of hundred yards of redwood bark was moved by shovel and tarp, retaining walls were painted, an edible garden was developed and a mural to honor Cesar Chavez was painted. It was fun and hard work.



KaBoom! Is a national non-profit organization that envisions a great place within walking distance of every child in America. Celebrating twelve years of service in 2008, KaBoom rallies communities to achieve better public policy, funding and public awareness for increased play opportunities nationwide; provide resources, including training, challenge grants, and publications for communities that wish to plan a new playspace on their own; and bring together children, business and community interests for a select number of community playspace builds each year.

Greg Williston