

BoDean Company owners,
Dean & Belinda Soiland.



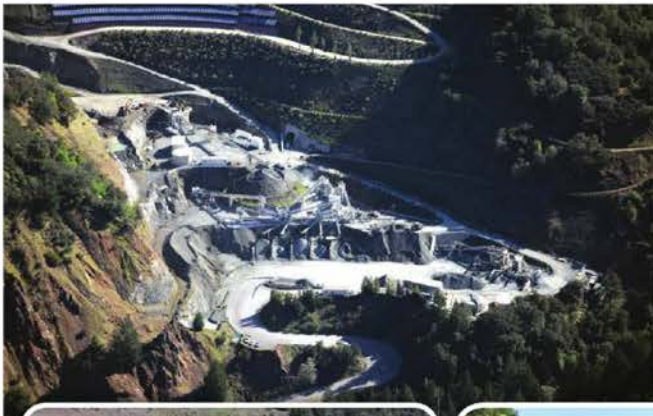
Suppliers of Quality Aggregates and Asphalt in Sonoma County and Beyond

By: Brian Hoover

The Mark West Quarry has operated since 1910 as a crushed stone facility under the ownership of various operators. Belinda and Dean Soiland took over the operations at the Mark West Quarry, located near Calistoga, April 1, 1989. Dean's family has been in the construction business for many years with his father working primarily in underground utilities.

His dad's company later added sand and gravel operations and hillside quarry mining. One of Dean's jobs, back in the 80's, was to scout around and negotiate river property leases for sand and gravel mining purposes. In the 1980s the Sonoma County Board of Supervisors developed the "Aggregate Resource Management Plan" (ARM Plan) in order to reduce terrace and in-stream gravel mining within

the Middle Reach of the Russian River. The plan also called for the complete phase-out of all river terrace mining by 2006. This created a shift toward hard rock hillside mining, and seeing this as an opportunity, Dean approached the landowners at Mark West to see if they would be interested in leasing the land that had been in mining operation for nearly 100 years. Upon seeing his tremendous drive and



Top Left: Mark West Quarry located near Calistoga. Top Right: Bill Williams, General Manager, BoDean Company.

Above Left: Voltaic Solar power at the quarry. Above Middle: Quarry plant. Above Right: Santa Rosa plant loads truck.

determination, the landowners agreed and Dean ventured out on his own, reopening the Mark West Quarry in 1989. Eventually they invested in a large wash plant at the site in an effort to manufacture washed products, including sand. The closed-loop system became the first of its kind in North America and enabled BoDean to be more sustainable, cost effective and environmentally responsible. In 1997, Dean further expanded the company by taking over operations at the Blue Rock Quarry in Forestville in 1997, doing business as Mark West Aggregates.

Additional growth came in 2001, when Dean assumed the operations of the Kaiser/Hanson plant in Santa Rosa. It was at this time that Dean returned to doing business as BoDean Co., deciding to get into the asphalt production business. BoDean Co. continued to make upgrades to the asphalt plant in 2009 by

installing a warm-mix injection system, taking advantage of the reduced temperatures to offer an alternative to traditional hot mix asphalt. Additionally, equipment was installed to enable the plant to accept reclaimed asphalt and run it back into the asphaltic concrete, offering a recycled asphalt product in the process.

Bill Williams is the General Manager at the BoDean Company and has been with the company for nearly 12 years. The BoDean asphalt plant currently serves the Santa Rosa market, out into outlying communities like Windsor and Forestville and occasionally as far south as San Francisco where they performed work on a federally funded Golden Gate Bridge project. Now fully engaged in the asphalt production business, Bill points out that the addition of the asphalt plant helped bring his company through the recent tough economic times. "We have

been fortunate that as a 'self help' county through Measure M, the state has been more apt to fund projects," says Williams. "With state matching funds, Sonoma County has had a more than normal influx of Caltrans work over the past few years. This certainly helped to bring our company through some otherwise challenging times.

"We recently added new storage silos and a new scale to our batch plant that has been in operation since the 1960s, says Williams. "These 300-ton capacity Astec silos and scale represent one of the many technological additions and modifications that have been done to our plant, including the addition of recycled asphalt pavement (RAP), recycled asphalt shingles (RAS) and foaming capabilities for the production of warm mix asphalt."

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Above: Mark West Quarry Wash Plant.
Top Right: Aerial view Santa Rosa Plant.
Right: Diemme filter press.



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The expansion of the three new Astec silos became a point of controversy when a group of Santa Rosa citizens formed a group to try and stop the new silo additions. "I believe there was some definite confusion from the beginning concerning this topic. The storage silos in question are a down-stream component and consequently do not directly affect our ability to produce asphalt," says Williams. "Whether production goes up or down, is dependent upon a number of factors, all of which are ultimately driven by the market."

BoDean Co., Inc. previously operated under vested use, so there was no production limitation by the air district. "What happened during this whole controversy was that we came to realize that we were having more of an impact on our neighbors than we realized," says Williams. "Because of this we negotiated with the air district and agreed to limit our annual throughput to under 450,000 annual tons. In addition we made the investment into a blue smoke system on the entirety of the

plant to reduce emissions and odors from the production of asphalt." The BoDean's Santa Rosa asphalt plant has been in existence since the 1960s with virtually no complaints prior to the controversy, and production has always been dependent upon the economic growth in the Santa Rosa area and by the capacity of the plant itself.

According to Williams, as a general rule, usage of asphalt tends to be lower in Sonoma County than in other parts of the state. "The addition of storage silos was never centered on increasing production capacity," says Williams. "The benefits of additional storage are realized more by the fact that we do not have to push our plant to its limit of 300 tons per hour. Additional storage allows our plant to run at its comfort zone of 240 tons per hour, which reduces energy consumption by as much as 20 to 30 percent."

BoDean Company also knew that the Highway 101 project was coming and that the majority of the work would be taking place at night. "Our feeling was that we could reduce or even eliminate the impact on our neighbors by producing asphalt

during the day and then store the material in silos for use at night," says Williams. "However, because of the opposition, the process took longer and this benefit was never able to be realized at the time."

Yet another major benefit to the surrounding community came about during the permit process. The air district decided to require the Sonoma County plant to install blue smoke filtration systems on the new Astec silos. "We took this one a step further and made the decision to install filtration systems not only on the silos, but also on the existing plant as well," says Williams. "I believe that the filtration system is an important component to our manufacturing process and we turned to Mike Butler of Butler Justice to get this done for us."

Blue Smoke Control® is a patented product of Butler Justice Inc., Anaheim Calif. and the company has been manufacturing and installing their systems worldwide for several years. The Blue Smoke Collector is designed to filter and control the blue smoke that typically

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Blue Smoke Control®

Congratulations to BoDean Santa Rosa for Proving that: "You Can't Beat the System ... (Blue Smoke Control, that is!)"



**Mike Butler, CEO
Blue Smoke Control
A Division of
Butler-Justice, Inc.**

Over the past decade, our Blue Smoke Control group has become the leading provider of blue smoke control systems for the hot mix asphalt industry throughout California, the United States and Mexico.

One of our most challenging and successful installations is at BoDean Company's Santa Rosa, California plant. BoDean came to us with a somewhat common request these days: "How do we integrate our plant operation into an urban environment and make friends, not enemies, in the surrounding community?"

We have worked extremely hard on technological breakthroughs that do just what they wanted:

...to bring the highest standards of asphalt pollution control while achieving reasonable initial investment costs and economical ongoing operational and maintenance expenses.

As in all of our applications, at BoDean we efficiently and economically

capture blue smoke from key points in the production process. (1) Top of Silos, (2) Conveyor Transfer Points and (3) Truck Loadout Areas.

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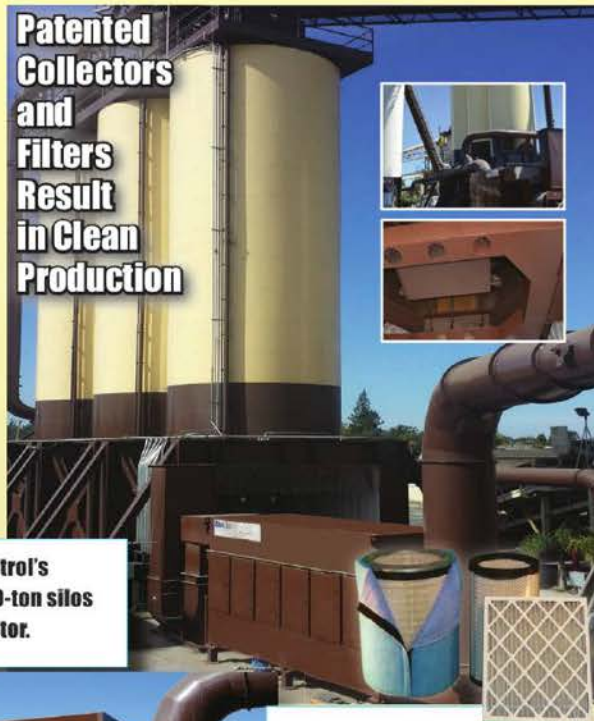
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Clean Asphalt Production Now an Everyday Reality at BoDean

“ During the painful process of permitting our plant to operate within this urban Santa Rosa setting, we committed to installing the most efficient Blue Smoke Collector available. Blue Smoke Control provided solutions that met the needs of our city while satisfying the local Air District ... and that makes us extremely happy.”
— Bill Williams, BoDean Company—

Patented Collectors and Filters Result in Clean Production



The batch plant is controlled by Blue Smoke Control's Model 6-S12-C 24,000 cfm collector. The four 300-ton silos are vented to a Model 6-S20-C 40,000 cfm collector.



Our collectors are recognized as "BACT" (Best Available Control Technology) for removing Blue Smoke from asphalt production. Using our technology, BoDean has fully complied with stringent Air District requirements, and has been accepted by the community.

Blue Smoke collectors use highly-effective proprietary filters to achieve what we believe is the cleanest plant currently operating anywhere. The final filter is 95% efficient at .3 microns, which is over 30 times more efficient than the Air District's requirement to control emissions of particulate smaller than 10 microns.



Above: BoDean Company recently installed Blue Smoke Collectors manufactured and installed by Butler Justice, Inc. on the new and existing silos and on the existing plant. Blue Smoke Control is a patented product of Butler Justice, Inc. and is necessary to filter and help eliminate asphalt odors and fumes from entering the atmosphere.

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comes from in-plant transferring and loading of hot mix asphalt. Blue smoke is actually made up of sub-micron droplets of oil that create the haze that is typically associated with the production and handling of hot mix asphalt. The Blue Smoke Control collector helps to eliminate asphalt odor and fumes from entering the atmosphere. Put simply, the Blue Smoke Control cartridge filters are made from proprietary filter media developed exclusively for collecting oil mist from hot mix asphalt producing plants. This media, combined with a special outer wrap, allows the filter cartridge to drain and prevents the collected liquid from entering the clean air stream. Field observations of systems engineered by Blue Smoke Control® indicate that a well-designed multifilter blue smoke capture system have been tested and proven to operate between 96-99 percent efficiency. "At BoDean, the Blue

Smoke Control collector was first engineered as one unit and then we realized we would be better served by adding an additional unit to control emissions on the existing plant and at the top of the already existing silo," says Williams. "Blue Smoke Collector One now filters the load-out area of all three new Astec silos, silo top transfer points, and the enclosed traverse conveyors. Horseshoe inlet hoods evacuate the smoke-laden air from the load-out tunnel," explains Williams. "Collector Two captures emissions from the load-out area under the batch tower and at the top of the original silo. It is an extremely efficient system that significantly lowers VOC and micron emission levels, as well as the odors." Bill Williams also states that there may be some new emission standards coming soon and he is pleased that BoDean is ahead of the curve.

BoDean Co., Inc. continuously looks to be a conservation leader in both their asphalt plant and their quarry production facilities. They are just one of the proactive

companies operating in California, made further evident by the fact that their Mark West Quarry operation is fully powered by solar energy. "We make great efforts to be an environmentally sustainable company. Some people call it green-washing and that is just not the case," says Williams. "We are operating under a set of core values that includes increased profitability, as well as greater accountability to our environment. Why wouldn't we look for ways to reduce our energy costs and invest in the future of our company?"

BoDean Co. received the Bay Area Helios Award for leadership in Sustainable Business Practices in 2011 for its efforts in making their Mark West Quarry the first to fully operate under photovoltaic solar power. Yet another innovative way BoDean Co. is saving energy, specifically natural gas, is by their decision in 2005 to pave their Sonoma County asphalt production facility. The pavement was installed so that its asphaltic aggregates would drain to the north, effectively allowing gravity to



Above: Installation of the new Astec Storage Silos and scale at BoDean's Santa Rosa facility. These 300-ton capacity Astec silos and the new scale represent just some of the many technological additions and modifications being added to the BoDean Company asphalt plant located in Santa Rosa Calif.

drain, and the sun to dry, the moisture from the aggregate stockpiles."Every 1 percent of moisture that we can remove from the aggregate naturally equates to a 12 percent energy savings in drying costs," says Williams.

Along with quarry and asphalt production facilities, BoDean Co. is also loosely affiliated with Northgate Ready Mix. Dean Soiland ventured out with his brother, Troy, a few years back to start Northgate Ready Mix in Windsor. Northgate supplies Caltrans spec-quality concrete to the North Bay. The concrete is manufactured utilizing premium washed aggregates from the solar powered Mark West Quarry. Northgate's new state-of-the-art computerized

plant ensures batch consistency and also facilitates the use of the latest admixtures. Whether it is crushed rock, asphalt or ready-mix concrete, BoDean can supply you with the products you need at competitive pricing and industry leading service. Bodean Co. is also a valued member of the California Asphalt Pavement Association (CalAPA) and has been very proactive in the association for more than 11 years. Bill Williams was involved in developing methodology and helping to write strategic goals, even attending strategic retreats over the years. "Our quality control manager, Josh Cleaver is beginning to become more involved with CalAPA these days, attending meetings and

workshops," says Williams. "All of us at the BoDean Company believe that CalAPA is of vital importance to the future of our industry here in California and beyond. They not only work tirelessly to protect our interests on a statewide and nationwide basis, but also provide a wealth of information and a conduit to share that information with others in our industry. CalAPA's executive director, Russell Snyder has done great things with the association and anyone involved in the asphalt industry should be supporting CalAPA. It is an investment that will always pay for itself."

For more information on BoDean Co., Inc. offerings please see below: **CAM**

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