Bringing remediation back home

By Matthew Manguso

For 15 years, Pinedale native William "Willy" Irwin has owned and operated Alliance Environmental Services (AES), a remediation company based in Chico, Calif. With fifteen engineers and architects and a pool of 200 employees, Irwin was content to stay in California cleaning up oil spills, "meth labs" and removing mold. But eight months ago, Irwin's sister, Connie, called her brother and suggested he bring his company back to his hometown to help with remediation in Sublette County.

"Connie was the reason for us coming back here," Irwin explained.

The phone call, Irwin said, involved Connie telling her brother how ground ozone and other environmental concerns were consuming the area and how Irwin's knowledge of state-of-the-art technologies and remediation efforts would greatly benefit Sublette County.

"Fifty years ago, California was going through the same growing pains that Wyoming is going through now. In California, they're down to their second and third aquifer because of contamination, and I just wanted to come back to help make sure everybody had the right tools so Pinedale remains as beautiful as it is," Irwin said. "Wyoming is doing a good job, but it takes time and manpower to put these programs into place."

Two of the programs Irwin is hoping to bring to the state are thermal desorption and bioremediation.

Thermal desorption – the process of heating soils and other substances so contaminants can be removed – has been in use for many years, Irwin explained, but in the past, many Wyoming companies would re-inject contaminated mud back into the earth. Though the substances are placed deep underground, the potential for contamination is still an issue. But Sublette County's isolation makes the process extremely costly, because contaminated soil needs to be hauled out of state to thermal disoprtion facilities.

Courtesy image

Willy Irwin has spent 15 years helping keep California clean. Now he's bringing his remediation efforts back to his hometown of Pinedale.

Courtesy image

An AES employee decontaminates barrels at a facility in California.

To lessen the cost to Sublette County producers, Irwin is hoping to bring a thermal disorption facility to a centrally located area where soil can be burned, decontaminated and recycled back into the earth with as small an impact to the environment as possible.

"Say you have contaminated soil with whatever it may be," Irwin said. "We'll pull a sample of it, identify the concentrations and then put it through the process of several different burners and scrubbers. When it comes out the other end, it is re-sampled to determine it is clean and then the client hauls it off for fill."

Bioremediation is a much more novel idea.

Developed by a chemist in Italy, bioremediation uses bacteria to destroy contaminants.

"A lot of the time, bioremediation can be done on site and the clean up can be done within a couple of weeks," Connie said.

Depending on what type of contaminant is in the soil, Irwin's chemist will develop bacteria that wants to "eat" the substance. AES will then head to the site, inject the bacteria, isolate it and let it go to work. Using probes, AES will make sure conditions, like temperature, are perfect so the bacteria can be as efficient as possible. Once all of the contaminants are gone, and with nothing else to eat, the bacteria will destroy itself.

"It's very technical," Irwin admitted.

But in layman's terms, Irwin explained the bacteria is like a bunch of "hungry guys with no legs. Once all the food is gone, they turn on each other and the site is completely clean."

"The system is designed to make conditions perfect so the bacteria is happily eating, and you can do it all from a laptop," he added.

Both of these processes are designed to focus on recycling, because, as Irwin said, it is a lot easier to deal with a problem correctly and in the present than to just "get rid of it" and have the problem resurface in the future.

"If you dig up contaminated soil and just move it someplace else, eventually someplace else will have an issue. It's a lot easier to deal with it now," Irwin said.

And though Wyoming may be slow to act on new technologies, both Irwin and Connie said producers in the state are working as hard as they can to keep the environment safe.

"The oil companies are doing what they're supposed to be doing based on what the state wants them to do," Connie said. "But we're offering a better alternative that [producers] have found to work in California."

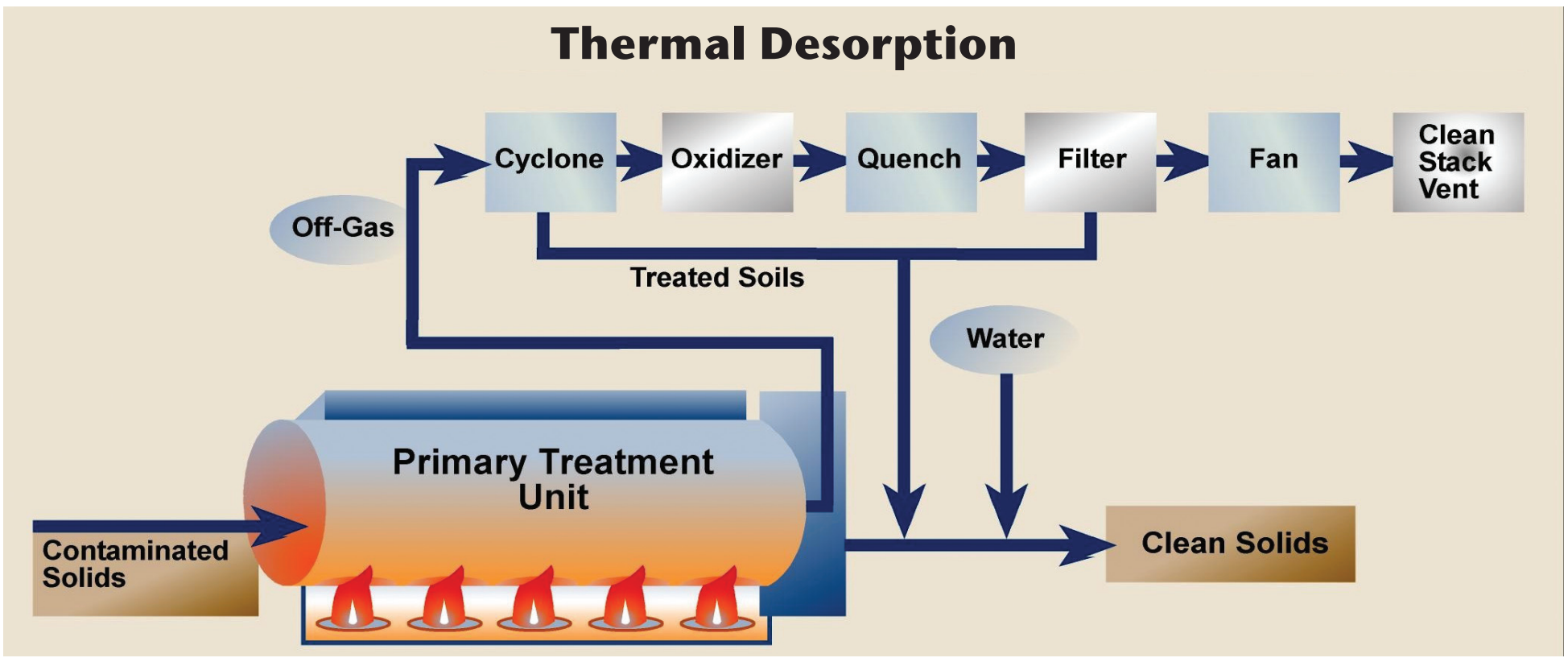
Already, producers in the area are contacting AES to help them deal with contaminate issues. Most recently, AES was called in to help remediate the site of the Falcon Compressor Station that exploded in December.

"Things happen," Irwin said, referring to the fire. "Falcon did a great job with that big of a fire and making sure nobody got hurt. But they called us right away, and we were here the next day to help assess the problem."

But for AES and the Irwins, the most important thing is keeping Sublette County's pristine nature safe.

"My mother's family built Warren Bridge, so we've been here a long time and I have real strong ties to Wyoming. My concern is, when the companies leave Pinedale, it is the same as it was when they got here," Irwin explained. "There's nowhere more beautiful than this place." ■

manguso@pinedaleroundup.com



Courtesy image

Impact Area Ground Water Study Program