

**From:** Alison Davis <[adavis@acecoregon.org](mailto:adavis@acecoregon.org)>  
**Date:** February 19, 2018 at 9:57:01 AM PST  
**To:** Alison Davis <[adavis@acecoregon.org](mailto:adavis@acecoregon.org)>  
**Subject:** Award-winning QBS project - City of Prineville

Dear Representative:

RE: Follow-up to Vote NO on HB 4127

Please take a moment to review the brief article, attached, on the City of Prineville's award winning project, which was procured using the QBS process, and ended up saving the City \$54 million. Key sections have been highlighted.

ACEC Oregon has many other examples of very successful projects procured utilizing the QBS process.

We urge your NO vote on HB 4127.

Thank you!

**For more information please contact Marshall Coba 503-580-1668 [marshall@cobacompany.com](mailto:marshall@cobacompany.com)**

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# 2018 Engineering Excellence Awards



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# Project of the Year:

## CROOKED RIVER WETLANDS

**Submitting Firm:** Anderson Perry & Associates Inc.

**Client/Owner:** City of Prineville

**Other Consultants/Key Participants:** Aquatic Contracting (subcontractor), George Chadwick Consulting (subcontractor), Rotschy Inc. (general contractor)



A wave of residential and business growth brought new vitality to Prineville. But even as the Central Oregon community celebrated its growing population, Prineville officials worried that boom was pushing the city's wastewater treatment facility to its operating capacity.

Replacing the old treatment plant with a new mechanical one would give Prineville a system that would serve the city even as it continued to grow while also allowing it to meet permitted discharge limits if they changed in the future. But it would also come with a \$62 million price tag that would likely require the city to increase some service development charges on new construction while also causing user rates to skyrocket.

In search of a more affordable solution, Prineville officials turned to Anderson Perry & Associates for help.

Known for finding cost effective and innovative solutions, Anderson Perry's team suggested the city consider a wetlands system for the treatment and disposal of wastewater. Not only would that approach cost \$57 million less than a full mechanical wastewater treatment facility, it also would provide an environmental benefit that would

allow the city to pursue grants from agencies and organization that could pay for as much as half of the project cost.

When the city embraced the idea, Anderson Perry designed a 120-acre project featuring a total of 15 cells. Eight treatment wetland cells are lined with bentonite and covered with top soil to prevent water from entering the ground. Seven disposal wetland cells allow water to be used by a park-like ecosystem and filtered as it flows through soil above the groundwater level and infiltrates into the Crooked River. The system works entirely by gravity flow from an existing irrigation storage pond, a sustainable solution that eliminates the cost of electrical power often needed to operate mechanical plants.

Anderson Perry's support of the project that came to be known as the Crooked River Wetlands went far beyond simply providing the city with the wetlands solution and design.

"They worked with the city to help us navigate a tremendously difficult permitting process with the Oregon Department of Environmental Quality and Environmental Protection Agency for this cutting-edge project," Eric Klann, Prineville's city engineer,

wrote of the firm's work on the project.

The main concern of the DEQ and EPA with using wetlands as a treatment and disposal method for wastewater was the potential for groundwater contamination. Before design work began, to alleviate the agencies' fears, Anderson Perry teamed with Dr. George Chadwick, a hydrologist engineer, and began holding meetings with the agencies to discuss the project. From those meetings, DEQ compiled a list of design requirements that included drilling monitoring wells, installing piezometers and developing a complex underground hydrogeological groundwater flow model. In addition to meeting each of those requirements, Anderson Perry also compiled several years' worth of water chemistry data resulting from the monitoring of the city of Baker City's aquifer storage and recovery well that provided proof that underground waters don't commingle. Anderson Perry's efforts finally led the state and federal agencies to give the project a green light, establishing the Crooked River Wetlands project as a baseline for future projects considering indirect discharge.

Anderson Perry also played a key role in helping the city not just find, but also pursue supplemental money to help keep the city's costs for the project



In addition to helping the city find an affordable solution to its wastewater capacity challenges,

as low as possible.

Based on the benefits that the wetlands would provide to the natural environment, Anderson Perry was able to help the city locate and obtain grants from agencies and groups that included Oregon State Parks, the Oregon Watershed Enhancement Board, The Pelton Fund and the Confederated Tribes of the Warm Springs. Business Oregon and the U.S. Department of Agriculture Rural Development also provided some funding. In the end, Anderson Perry and the city were able to obtain enough grant money to pay for almost half of the \$8.3 million cost of the wetlands project.

Rotschy Inc, the contractor for the project, began work in February 2016. Because money to pay from the project came from numerous sources, Anderson Perry had to develop complex bidding documents that clearly separated and outlined the work and portions of the project that each source of funding was paying for. Despite the intricate situation, construction progressed well and the project was mainly completed a little more than one year after it began.

During construction, Rotschy excavated and placed almost 500,000 cubic yards of soil to create a wetland area. The project was designed so that every bit of soil excavated was used, requiring no additional material to be brought in or moved out. With the goal of allowing the city to control the flow of wastewater between all of the wetland cells, the construction phase also included the installation of more than 7,600 feet of gravity piping, 6,500 feet of pressurized irrigation piping and 32 concrete control structures and manholes.

Anderson Perry helped

include in the scope of the project the development of more than five miles of public trails and a perimeter loop. The firm designed walking paths, pavilions, gazebos, restrooms and a parking area that will provide area residents with education and recreation opportunities related to the new wetland and riparian areas.

Even before it opened, the wetlands project provided an opportunity to teach local school children about the unusual approach to handling wastewater. The students helped create 13 information kiosks located around the wetlands that offer information about watersheds, wetland

plants, Native American and Prineville history, and steelhead reproduction. Students in woodshop classes at Prineville schools built and painted more than 200 birdhouses that were located throughout the wetlands for use by swallows and other species, an effort expected to establish the Crooked River Complex as a prime spot for bird watchers.

From serving as an area offering educational and recreational opportunities for the community to providing significant savings for the city and its businesses and residents, the Crooked River Wetlands project – and Anderson Perry's contributions – far exceeded the city's original expectations.

Prineville, according to city engineer Klann, "is ecstatic with the success of this project."

