Serving Stewards of Western Water since 1993

THOMAS J. OSTROWSKI, P.E.

Project Engineer

Education

B.S., BioResource and Agricultural Engineering California Polytechnic State University San Luis Obispo, CA

Professional Registrations

Civil Engineer, State of California, License No. C 82665

Summary

Mr. Ostrowski has served as project engineer on a variety of facilities modernization, water conveyance, water management, and irrigation efficiency projects since joining Davids Engineering in July 2010. Mr. Ostrowski has contributed to the design of gravity pressure and mechanically pressurized conveyance pipelines at the feasibility and final design stages. He has prepared feasibility and preliminary-design level modernization and improvement design summaries and construction cost estimates for various types of projects for both large and small irrigation districts. Mr. Ostrowski has completed alternatives analysis for the identification and prioritization of infrastructure improvements to assist districts in their modernization and water management goals. He has developed design plans using AutoCAD software and digitization of surface features using aerial imagery and ArcGIS. He has prepared digital elevation profiles using LIDAR data and AutoCAD scripts. Mr. Ostrowski has also performed various construction management duties, including resident engineer, construction inspector, and assistant construction manager.

Selected Experience

Colusa County Water District

Lateral 6A and 5B Pipeline Replacement Projects

Mr. Ostrowski assisted in the planning, preparation and design of a replacement PVC delivery pipeline to supply gravity pressurized irrigation water to District growers in the Colusa County Water District. Multiple breaks in their existing 27” diameter Techite lateral supply line prompted the District to seek replacement options.

Mr. Ostrowski performed pressure surge analysis to determine potential surge pressures and possible existing causes of these surges and pipe failure. He performed cost analysis and pipeline hydraulic calculations for various pipe materials and pressure classes and evaluated each pipe material based on additional selected criteria to determine the recommended material and pressure class for approximately 11,600 feet of 27” and 30” pipeline.

Mr. Ostrowski supported the planning, design, contracting, and construction inspection for replacement projects completed during both 2011 and 2012. Design responsibilities included selection of horizontal alignment and vertical profiles, design and preparation of delivery connection details, design of custom adapters to connect new PVC to existing asbestos-cement pipeline, and drafting all drawing sheets. Additionally, Mr. Ostrowski prepared technical specifications for the work under the responsible charge of the project engineer. Mr. Ostrowski served as construction inspector and on-site engineer during construction. Additional responsibilities included procurement of materials including all PVC pipe and large diameter fittings, scheduling of geotechnical testing services, contractor coordination in the field, owner-engineer-contractor liaison, inspection of pipeline features and materials, tracking of labor and equipment usage, jobsite supervision and assisting the project manager and engineer with construction management and contract administration.

Orland Unit Water Users' Association
Regulating Reservoir and Associated Canal Improvements
Mr. Ostrowski provided inspection, resident engineer services and assisted in construction management for construction of a 49 acre-foot regulating reservoir designed to increase flexibility and water management in one the Orland Unit Water Users' Association's main distribution channels. Associated canal improvements included: 6 long crested weirs, 6 concrete heading structures, automated flow control gates, SCADA system and canal lining. Mr. Ostrowski also preformed the design and drafting of the reservoir concrete lining, assisted in the preparation of Request for Proposals for SCADA integrators and for flow control gate suppliers. He prepared reviews and reports for the project manager of material submittals, completed work, contractor schedules and progress, change order requests, progress payment requests and completed daily engineer's reports.

California Department of Fish and Game
Little Shasta River Water Efficiency Study & Shasta Springs Ranches Water Management Plans, Siskiyou County
Mr. Ostrowski was involved in flow measurement data collection, canal seepage testing, ranch infrastructure inventory, digitization of ranch features in ArcGIS, collection and development of field and feature attribute data for entry in Microsoft Access database, and categorization of fields for use in the water balance analysis. As part of the much larger study, Mr. Ostrowski performed evaluation of the existing infrastructure and ranch irrigation practices and generated several conservation alternatives to potentially increase flows in the Shasta River, which are crucial for anadromous fish, while still maintaining agricultural productivity on the ranch.

Deer Creek Irrigation District
Long-Term Water Conservation Plans, Tehama County
For Deer Creek Irrigation District, Mr. Ostrowski evaluated several conservation alternatives to reduce the Districts' diversions from Deer Creek, which is a tributary to the Sacramento River and used by spawning salmon. Mr. Ostrowski evaluated various alternatives including ditch lining, improved flow delivery, improved flow measurement, improved diversion capabilities using remote automation and SCADA monitoring. The overall water savings for each option was estimated based on increased on farm efficiencies, direct reduction in diversions, or reduction in spillage and the options were ranked based on the incremental cost of potential water savings and implementation costs.

South San Joaquin Irrigation District
Water Information Management System Program, San Joaquin County

Mr. Ostrowski provided cost estimation, feasibility investigation and in-field reviews of District operations and flow measurement practices for use in the development of District wide flow measurement enhancement and the selection of pilot flow measurement projects. Mr. Ostrowski was also involved in the design, development and cost estimation of 18 flow measurement sites at District spill sites that will be used to more accurately manage the Districts operations.

Professional Organizations

United States Committee on Irrigation and Drainage
American Society of Agricultural and Biological Engineers