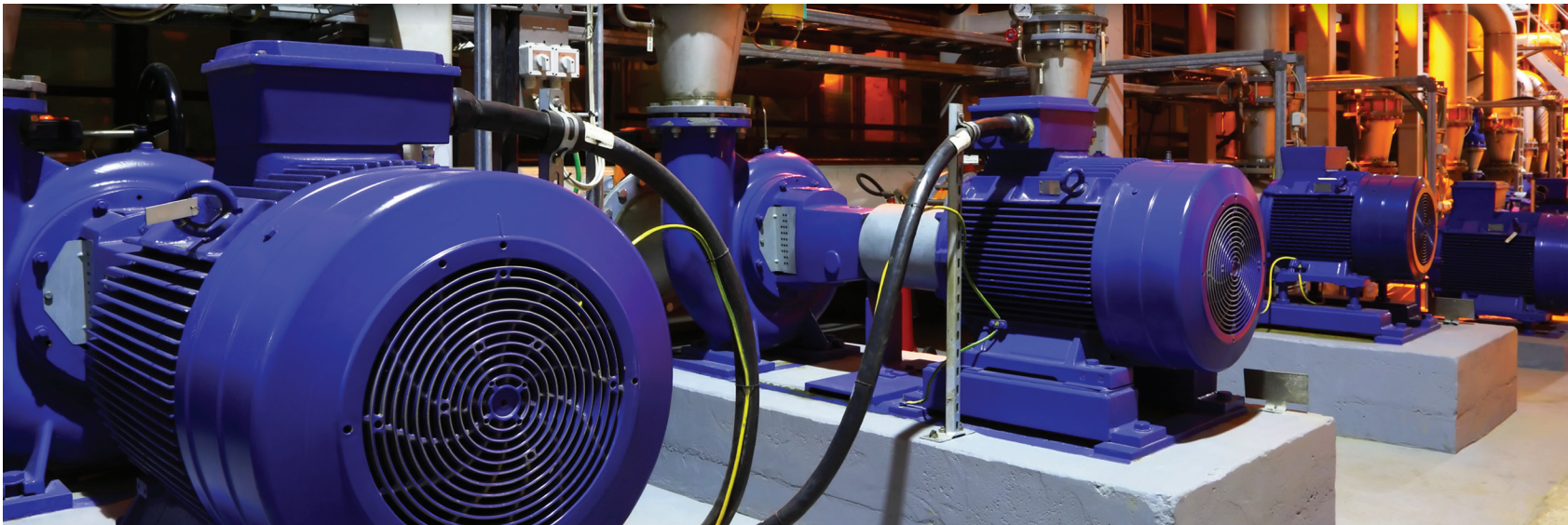




Engineering Services

CES has extensive experience in the conceptualization, design, construction and management of a wide range of engineering projects for food processors, municipalities, mines, power plants, wood product facilities, CAFOs and agriculture. We specialize in water and wastewater treatment, environmental management and water distribution systems. The engineering team at CES includes professionals in the agricultural, chemical, civil, environmental and mechanical engineering disciplines, as well as experienced designers, drafters and field technicians.



Providing Engineering Services for Water and Wastewater Treatment & Reuse

Feasibility, Design and Construction

The culture of CES creates collaborative solutions from our in-house professional engineers and scientists. We have experience assisting customers with feasibility planning, funding, permitting and system installation. Our design center approach for preparing plans and specifications ensures quality, continuity and timeliness. CES can supply construction observation and oversight services, technical support for startup, and full turnkey services to ensure your project is completed correctly. CES offers the following services:

- Pump stations and piping networks
- Storage ponds and reservoirs
- Hydraulic pressure modelling
- Animal waste management
- On-site sewage systems
- Surface/groundwater withdrawal systems
- Mechanical and biological treatment systems
- Potable water treatment
- Landfill permitting/design
- Land application systems
- Stormwater management
- Feasibility and economic studies
- Permitting and compliance
- Construction management
- Project management

Selected Project Examples



Fry Foods – Ontario, Oregon Land Application System

Fry Foods retained CES to design and build a land application system to treat and manage the wastewater discharge from an upgraded onion processing facility. CES completed all of the initial feasibility assessment and permitting, and engineering design, then provided construction oversight. The project included the following:

- Feasibility/options review
- WPCF permitting
- 8 MG lined storage pond
- Effluent and irrigation pump stations
- Center pivot irrigation system
- Freshwater delivery system
- 1.8 MG fire water pumping system
- Project management
- Turnkey system construction



Potato Products of Idaho – Rigby, Idaho Process Water Treatment System

Potato Products of Idaho (PPI) selected CES to complete an options assessment for process water pretreatment. Currently, PPI discharges high-strength process water to the City of Rigby, that by ordinance, can assess excess strength surcharges. To avoid additional fees, CES recommended construction of a biological wastewater pretreatment facility. CES designed, provided construction administration services, and commissioned an 86,400 gallon-per-day facility to improve process water quality. The facility includes the following large equipment:

- pH neutralization tanks
- Dissolved air floatation
- Moving bed biofilm reactor
- Secondary clarification
- Aerated digester
- Volute screw press



Garland City - Garland, Utah Wastewater Treatment Facility

CES provided full system design, construction administration and resident project representation for a 2.0 million gallon-per-day municipal wastewater treatment facility and collection system upgrade. Collection system improvements were completed in 2017, and the treatment facility construction is anticipated to begin in June 2018. Specific accomplishments included:

- Facility and environmental planning
- USDA funding
- Permitting
- Sewer conveyance design
- Treatment facility design
- Construction administration
- Operational plans
- Resident construction inspection

