



FACULTATIVE LAGOON
Meeteetse, Wyoming



AERATED LAGOONS
Dubois, Wyoming



MEMBRANE BIOLOGICAL REACTOR (MBR)
Alpine, Wyoming



BIOLOGICAL/MECHANICAL TERTIARY SYSTEM
Teton Village, Wyoming

On June 22, 1969, the heavily polluted Cuyahoga River caught fire in Cleveland, Ohio, drawing national attention to environmental problems throughout United States. This event and growing awareness of the need for clean water, led to the adoption of the federal Clean Water Act (CWA). Since the adoption of the CWA, effective wastewater treatment has become the norm in the United States.

Wastewater treatment is an ever-evolving science. While the basic principles of mechanical, biological and chemical treatment have been with us for a long time, understanding and applying of these principals are continually evolving. Nelson Engineering stays abreast of evolving technology through continuing education and our involvement in the Water Environment Federation, an association of water treatment experts dedicated to preserving and enhancing the global water environment.

Nelson Engineering has many years of experience in the design of wastewater treatment plants. This experience has manifested itself in varying designs—from secondary facultative lagoons to enclosed biological/mechanical tertiary treatment facilities. We have designed facilities for direct discharge and wastewater reuse through groundwater recharge, irrigation, and wetlands enhancement. Here are a few of the firm's projects:

The Town of Meeteetse (WY) Facultative Lagoon—This is a straightforward, uncomplicated, easily-operated treatment facility that continues to serve the Town well after many years of use.

The Town of Dubois (WY) Aerated Lagoon—After exploring more technologically sophisticated treatment options, Nelson Engineering, at the request of the Town, designed and oversaw the expansion of this straightforward, low maintenance treatment facility.

The Town of Alpine (WY) Membrane Biological Reactor (MBR)—Nelson Engineering worked with the Town in designing and constructing a technologically cutting edge treatment facility that meets the Town's limited available space and desire for a facility that can meet both short and long-term treatment capacity demands.

Teton Village (WY) Biological/Mechanical Tertiary Treatment Facility—This treatment facility is situated in the midst of expensive resort homes and discharges to a Class I receiving water body, constraints that called for a design of the highest order so as to meet State DEQ permitting requirements. Nelson Engineering met the challenge with a biological/mechanical tertiary treatment facility.

The City of Driggs (ID) Comprehensive Wastewater Facilities Study—Nelson Engineering conducted a comprehensive wastewater facilities study that included providing population projections, quantifying current and future treatment capacity, and recommendations and cost estimates for several alternative sewage treatment methods. In addition, NE facilitated funding acquisition with IDEQ and the EPA.