MODERN-DAY TREATMENT WETLANDS

Treatment wetlands for mining-impacted waters have a long history. Modern advancements in science and technology have resulted in the ability to standardize the processes with customizable site-specific features.

MUNICIPAL TREATMENT BY NATURAL WETLANDS

Natural wetlands have aided in the treatment of municipal wastewater such as sewage and storm water for millenia.

CONSTRUCTED WETLANDS

Water quality improvements made by natural wetlands were recognized. People began to intentionally build wetlands for water treatment.

BEYOND MUNICIPAL

The ability of natural and constructed wastewater treatment wetlands to treat other contaminants such as metals and metalloids was noticed as people became more environmentally aware.

RESEARCH

Universities and academics around the world have engaged in over a century of research on how metals, metalloids, and other constituents can be treated by natural processes. This includes studying how wetlands can treat water from mining and industrial processes.

EARLY IMPLEMENTATIONS

Constructed and natural wetlands have been built and studied at mine sites for many decades. These used varying degrees of engineering and scientific understanding, design, planning, and implementation, and also had varying degrees of predictability.

FOUNDATIONS FOR PREDICTABILITY

For over a decade, Maven's scientists have been part of strategic industry-academic partnerships focussed on treatment wetland design and functionality. This has allowed us to better understand the mechanisms of treatment, and failure and recovery modes. We have found many opportunities for standardization and optimization.

mGrow
TREATMENT WETLANDS

A NEW ERA

Treatment wetlands for the mining sector have been designed with the same rigour expected of other modern-day water treatment systems. Base designs for aerobic and anaerobic treatment are standardized and customizable for site-specific application, bringing predictability to a technology with a long history.

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