



PROJECT:
National Great Rivers Research and Education Field Station

Leading the way with sustainable solutions

LOCATION
Alton, Illinois

PROJECT TYPE
LEED Building

COMPLETION DATE
2008

NEED

The National Great Rivers Research and Education Field Station in Alton, IL, was interested in a natural system to treat wastewater onsite, provide the option for water reuse and incorporate water features into their new building. In this LEED Gold project, all aspects of the design and construction of the building are being considered with a green mindset. Water will play an important role in this project and a natural wastewater treatment system was desired to serve as an educational tool for visitors on the importance of green solutions, provide aesthetic water features for the building and help to achieve LEED Gold Status for the project.

SOLUTION

The JW NAWE project team prepared a feasibility analysis for the use of engineered wetlands for wastewater treatment and reuse for the project. After the costs and sizes of the wetland system were determined the project team began the design of a two-stage wetland treatment system with ultraviolet disinfection. The wastewater will be treated to a quality that allows for non-potable reuse, including water feature in the lobby of the building.

The wetland wastewater system project is currently in the permitting phase. The building is on track to achieve LEED gold status.

BENEFIT

Given the unique ecosystem that is created by the confluence of the three rivers, a natural wastewater treatment system fits in well with the organic design of the building. Water features including a waterfall, a free surface wetland and subsurface wetland all incorporating native plants of the area are being integrated into the design. This will achieve the goal of creating a natural system that will be aesthetically pleasing, provide exceptional treatment and be an educational tool for the facility.



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