

# Monastery Run Improvement Project

## Wetland #2

*Saint Vincent College Environmental Education Center  
Loyalhanna Creek Mine Drainage Coalition*

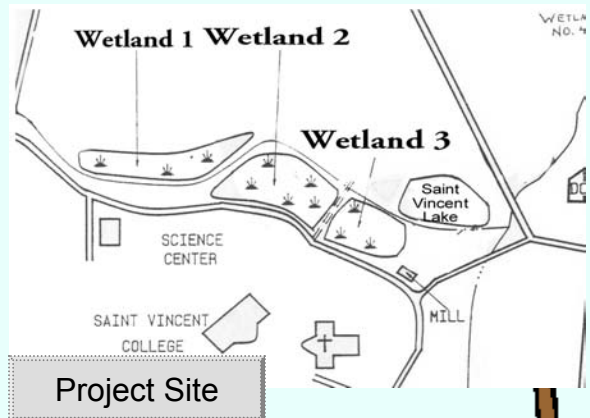
Wetland #2, located along the south side of Four Mile Run, was designed by USDA Natural Resources Conservation Service in cooperation with the landowner, Wimmer Corporation. It was constructed in the summer of 1998. Wetland #2 is a 7.5 acre passive treatment wetland system used to treat abandoned mine drainage which discharges within the existing cattail marsh. Two large cells were built within the existing marsh. In 2001 a new splitter dike was installed in the last cell to create 3 cells and to increase aeration and detention time. The pipeline, which carries water from “The Bubbler”, was extended to Wetland #2 in the event of high flows.

**Special Features of Wetland #2:**

- A 2,400-foot exterior dike is set back from the stream allowing a riparian buffer zone to remain.
- Plantings for wildlife habitat and natural enhancement were provided.
- A bentonite slurry cut-off trench was installed under the perimeter dike to prevent subsurface water flow between the wetland and stream.
- Water levels in each of the cells can be regulated.



Aerial Photograph of Wetland #2



Project Site



Water Quality Data		
Parameter	Average Effluent	PA Water Quality Standard
pH	6.88	6.0 – 9.0
Acidity	-28	0
Total Iron	6.39	< 7.0
Manganese	2.7	< 4.0
Aluminum	0.37	< 4.0

<b>Contractor:</b>	Hutchinson Excavating, Armagh, PA
<b>Contract Administration:</b>	USDA, Natural Resources Conservation Service
<b>Construction Cost:</b>	\$162,000
<b>Dedicated:</b>	November 12, 1998
<b>Operation/Maintenance:</b>	Saint Vincent College/Wimmer Corporation

