



SUNY-ESF
Improve Your World

Sap Flow of Shrub Willows on the Solvay Settling Basins in Upstate New York

*Jaconette Mirck and Timothy A. Volk
State University of New York, College of
Environmental Science and Forestry*

Syracuse, NY

*IPC Working Party on Environmental Applications of Poplar and Willow,
Montreal, June 5 – 8, 2007*



SUNY-ESF
Improve Your World

Outline

- ✿ Solvay settling basin background
- ✿ Objectives
- ✿ ET covers
- ✿ Why willow
- ✿ Materials and methods
 - ✿ Sap flow method
- ✿ Sap flow data
 - ✿ Single stem sap flow
 - ✿ Stand level sap flow
 - ✿ Precipitation
- ✿ Conclusion
 - ✿ Influence of willow varieties
 - ✿ Influence of season



Background

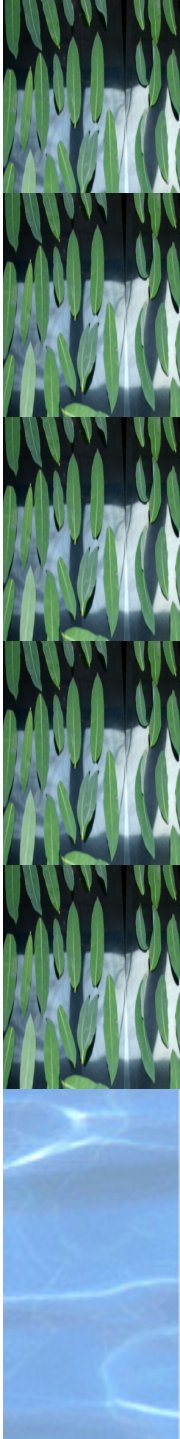


SUNY-ESF
Improve Your World



**Solvay Process Company
Facility and Erie Canal, early
1900s**

- ❖ Soda ash (Na_2CO_3) manufacturing using the Solvay method between 1884 – 1986
- ❖ Raw materials locally available
 - ❖ limestone, salt, water
- ❖ For 1 ton soda ash, about 10 m^3 Solvay waste, deposited as 5% solid slurry
- ❖ Resulted in 600 ha of settling basins



ERROR: undefined
OFFENDING COMMAND: ~

STACK: