PROJECT BACKGROUND:

*Phragmites australis*, an invasive plant found in New York State, poses a threat to both public transportation and the environment. These plants can grow up to 6 meters in height and grow in very dense, monotypic stands. These dense growths pose a direct threat to public safety by clogging drainage ditches, causing flooding. In some cases, Phragmites blocks highway signs and interferes with sight distances. This plant also poses great environmental harm by consuming limited habitat resources and by decreasing biodiversity. The New York State Governor’s Invasive Species Task Force (ISTF) has identified Phragmites as the number one invasive threat to marine environments. In a 2004 survey of the Regions by the Environmental Analysis Bureau (EAB), it was estimated that over $110,000 is being spent annually on Phragmites control projects in New York State. Current control methods are, for the most part, impractical, costly and ineffective, especially for large infestations. However, it has been shown, through successful efforts with the invasive plant *Lythrum salicaria*, (purple loosestrife) that properly managed biological control methods work well to control larger populations.

PROJECT OBJECTIVES AND OUTLINE:

This project will determine through thorough research, a great deal of testing under several environmental conditions and detailed analysis of results, the most effective biological control measures for dealing with *Phragmites australis*. It will also make available this information in the form of technical and educational materials and guidance. Specific research products will include:

- Conduct detailed preliminary research on Phragmites and the topic of biological control for Phragmites, and prepare an annotated bibliography of the acquired information.
- Prepare a work plan to study multiple candidate biocontrol species, focusing on aspects such as effectiveness, host specificity, life cycle issues, effects on native species, etc.
- Establish a nursery site for selected biocontrol species on NYSDOT property.
- Develop and provide a comprehensive set of guidelines regarding their use, such as site selection criteria, management techniques, etc;
- Develop appropriate technology transfer materials, media, and training materials for their use. Provide technical training sessions regarding their use.

DURATION: 48 months, starting in the summer of 2007

NYSDOT FUNDING: $400,000

EXTERNAL FUNDING: Invasive Species Task Force, $100,000

RESEARCH GROUP: Cornell University, Bernd Blossey - PI

NYSDOT PROJECT MANAGER: Kyle Williams, Environmental Analysis Bureau