Protecting the James River, Chesterfield County, Virginia

Natural Resource Damage Assessment and Restoration Program

The Problem

The C & R Battery Company, Inc., a former battery sawing and shredding facility (Site) operated from the early 1970s until 1985, when it closed due to several Occupational Safety and Health Administration violations related to elevated levels of lead on Site. High levels of lead were found throughout the Site and in drainage ditches leading to the James River. In 1986, the U.S. Environmental Protection Agency (EPA) added the Site to the National Priorities List (Superfund). Other hazardous materials released by operations at the Site included sulfuric acid and other heavy metals, such as cadmium, arsenic, antimony and nickel. Several miles of surface waters and sediments within the James River were negatively impacted by the releases.

The James River Watershed and Natural Resources

The James River is Virginia's largest river, flowing across the entire state from its headwaters in Bath and Highland Counties, to its mouth at the Chesapeake Bay. The James River supports two species of mussel, eight species of crayfish, and 56 species of fish, including the Atlantic sturgeon, a federal and state species of concern. Migratory birds, including bald eagles and other raptors, ducks, geese, and songbirds, have ranges that include the Site and use resources provided by the river.

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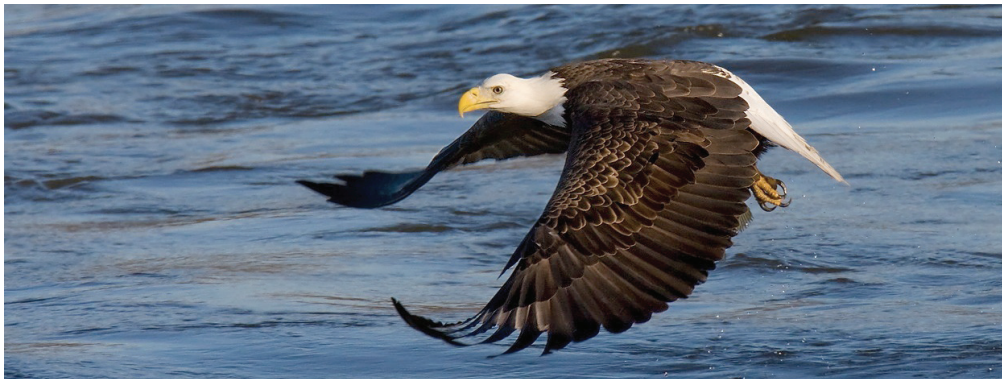
The James River at Presquile National Wildlife Refuge.

Habitat Restoration Opportunities at Presquile National Wildlife Refuge (PNWR)

- **Increase survival probabilities for migratory fish and birds in the restoration area(s);**
- **Improve prey base and nesting habitat for bald eagles;**
- **Improve water quality by reducing riverbank erosion;**
- **Improve the quality of bed and bank sediments;**
- **Improve and protect riparian buffer habitats; and**
- **Restore the natural riparian structure and function.**



William Majoros

High priority species like the American Bald Eagle nest along the James River at Presquile National Wildlife Refuge.

Natural Resource Damage Assessment and Restoration Program

When hazardous substances enter the environment, fish, wildlife, and other natural resources can be injured. The Department of the Interior, along with State, Tribal and other Federal partners, acts as "trustee" for these resources. Trustees seek to identify the natural resources injured and determine the extent of the injuries. Trustees work with the responsible parties to carry out restoration activities, or recover funds from responsible parties to carry out the restoration activities. These efforts are possible under the Natural Resource Damage Assessment and Restoration Program (NRDAR), the goal of which is to restore natural resources injured by oil spills or the release of hazardous substances.

Restoring the Resources

Parties contributing batteries to the Site for disposal included approximately 86 different business entities (de minimis parties). By 1999, all de minimis parties had settled with EPA and the Trustees. Settlement funds under the control of the U.S. Fish and Wildlife Service, in the amount of approximately $64,000, will be used for restoration activities within the James River watershed.

Proposed activities:

Specific types of riparian habitat protection and enhancement measures will include:

- Maintain and upgrade bank stabilization structure(s) along the southern shore of the PNWR designed to reduce bank sloughing and erosion;
- Increase riparian tree planting and buffer width along the southern and western borders of PNWR to stabilize the banks while also providing a value to wildlife;
- Provide future nest sites for nesting bald eagles as well as providing habitat for other species by increasing an

existing riparian buffer along the southern and western shores of PNWR;
- Increase control of invasive plant species on PNWR including Johnson grass and Canada thistle.

Other restoration activities preserving the value of the James River Watershed will include:
- Community environmental educational outreach at PNWR focusing on providing the public with information on history and status of various threats (spills); biological requirements of the species inhabiting the James River; restoration and conservation management strategies; and roles of the natural resource agencies and private citizens groups.

Status

Work began in April 2010, including riparian buffer planting. Additional work scheduled for 2010 includes: treating invasive species and erosion control analysis.

Thanks to Our Partners

Without the help of the The James River Association, Alliance for the Chesapeake Bay, National Audubon Society, and the Richmond Audubon Society, restoration of the James River at Presquile National Wildlife Refuge would not be possible.

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Eradicating invasive plants can help restore Eastern bog turtle habitat.

Sandra Marr

Environemental education programs help inform the public of the natural resources that live in and around the James River.

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Egrets and other waterbirds benefit from restored riparian buffers.

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USFWS biologist conducting research on Atlantic sturgeon.

For additional information or questions contact:

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