Wetland Benefits

- **Water Quality Protection**
  Wetlands filter sediment and nutrients from stormwater.

- **Flood Damage Prevention**
  Wetlands reduce flood impacts by holding and slowly releasing runoff from rain and snowmelt.

- **Wildlife Habitat**
  Wetlands provide critical habitat for birds, fish, turtles, mammals and reptiles.

This brochure was created by the Van Buren Conservation District as part of the Paw Paw and Black Rivers Wetland Protection & Restoration Project with support from the Michigan Department of Environmental Quality, the Two Rivers Coalition, the Southwest Michigan Land Conservancy and Ducks Unlimited.

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The Landscape Level Wetland Functional Assessment (LLWFA) is a tool for targeting wetland protection and restoration efforts in your watershed. The LLWFA includes an analysis of wetland trends and a database with important information about each wetland.

The LLWFA can help prioritize wetlands for protection or restoration based on how well those wetlands serve specific functions. Each existing wetland, as well as every historic wetland in the watershed is ranked for functional significance. These rankings can be combined with parcel information to identify landowners for outreach efforts.

Maps produced with LLWFA data can help government officials, residents and developers understand the impact of wetland loss on local water quality and the economic benefits of protecting remaining wetlands through planning and zoning techniques.

Wetland functions evaluated in the study:

- **Nutrient Transformation** – ability of the wetland to remove nutrients from the water.
- **Sediment Retention** – ability of the wetland to retain the sediment that would otherwise move downstream and build up in rivers, streams and lakes.
- **Shoreline Stabilization** – ability of the wetland to protect shorelines by minimizing bank erosion caused by wave action and currents.
- **Pathogen Retention** – ability of the wetland to retain bacteria such as *E. coli* that would otherwise move downstream and pollute rivers and lakes.
- **Streamflow Maintenance** – ability of the wetland to provide a base flow of water for streams, especially critical during dry periods.
- **Floodwater Storage** – ability of the wetland to store excess water during flood events.
- **Stream Shading** – ability of the wetland to buffer water temperature fluctuations.
- **Fish/Shellfish Habitat** – ability of the wetland to provide habitat for fish and shellfish.
- **Waterfowl/Bird Habitat** – ability of the wetland to provide habitat for waterfowl, shorebirds and forest birds.
- **Amphibian Habitat** – ability of the wetland to provide habitat for amphibians and other invertebrates.

Accessing the Data

- The Landscape Level Wetland Functional Assessment (LLWFA) has been completed for several watersheds in Michigan.
- LLWFA data for the Paw Paw and Black River Watersheds is available from the Van Buren Conservation District.
- The Water Resources Division of the Michigan Department of Environmental Quality can provide LLWFA data for several other watersheds in the state.