

# Deep River-Portage Burns Waterway Watershed

## 1 Introduction

### 1.1 Watershed Community Initiative

Our watershed of interest is the Deep River-Portage Burns Waterway watershed (Figure 1). It is the largest of six watersheds located within the Little Calumet-Galien sub-basin, draining approximately 180 square miles of north central Lake and Porter Counties to Lake Michigan. Some the major streams located within the watershed include Deep River, Main Beaver Dam Ditch, Turkey Creek, and the Little Calumet River's West Branch. This watershed management plan (watershed restoration and conservation plan) is the result of numerous communities and organizations coming together to establish a framework to restore the nearly 125 miles of impaired stream within its boundaries.

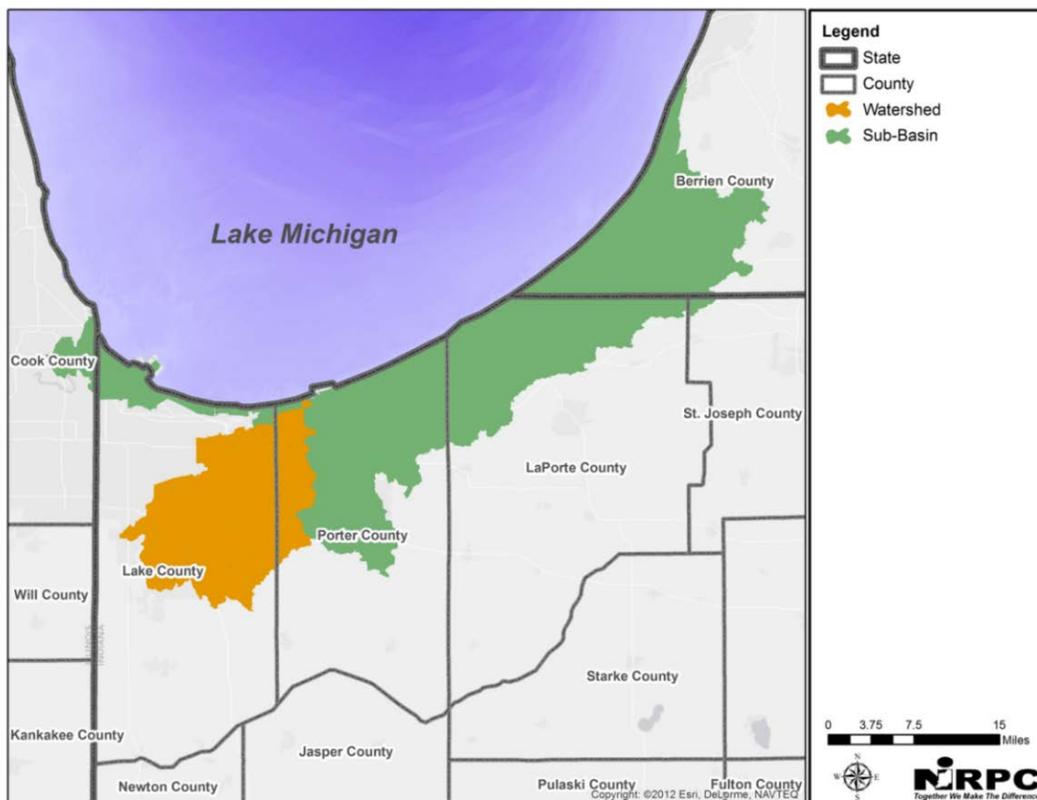


Figure 1 Watershed Location

A **watershed** is an area of land that drains to some common point such as a location on a river. Human land use practices and activities can have a dramatic impact on the health of lakes and streams within a watershed. When rain or snowmelt moves over and through the ground it can pick up harmful pollutants and carry them to nearby lakes and streams. This is known as *polluted runoff* or *nonpoint source pollution* and it is one of the greatest threats to water quality in Northwest Indiana.

### 1.2 Project History

The first comprehensive planning effort to improve water quality and restore aquatic habitats in the Deep River-Portage Burns Waterway Watershed dates back to the 2002 *Deep River-Turkey Creek Watershed Management Plan*. The City of Hobart initiated the development of the *Deep River-Turkey Creek Watershed Management Plan* following a dredging project that resulted in more than 590,000 cubic yards of sediment being removed from Lake George at a cost of over two million dollars to City tax payers. Given the cost of dredging the City of Hobart realized a long-term solution was needed to reduce future sediment and nutrient loads to Lake George which threatened the City’s lakefront and downtown revitalization efforts.

In 2009, the Gary Storm Water Management District led the development of a watershed management plan for the West Branch of the Little Calumet River. Originally, the intent of the project was to identify pollutant contributions to the mainstem West Branch Little Calumet River from inappropriate or failed septic systems, streambank erosion, aquatic habitat degradation and polluted runoff from land development. Eventually the project was reworked to include a watershed wide study of this problem.

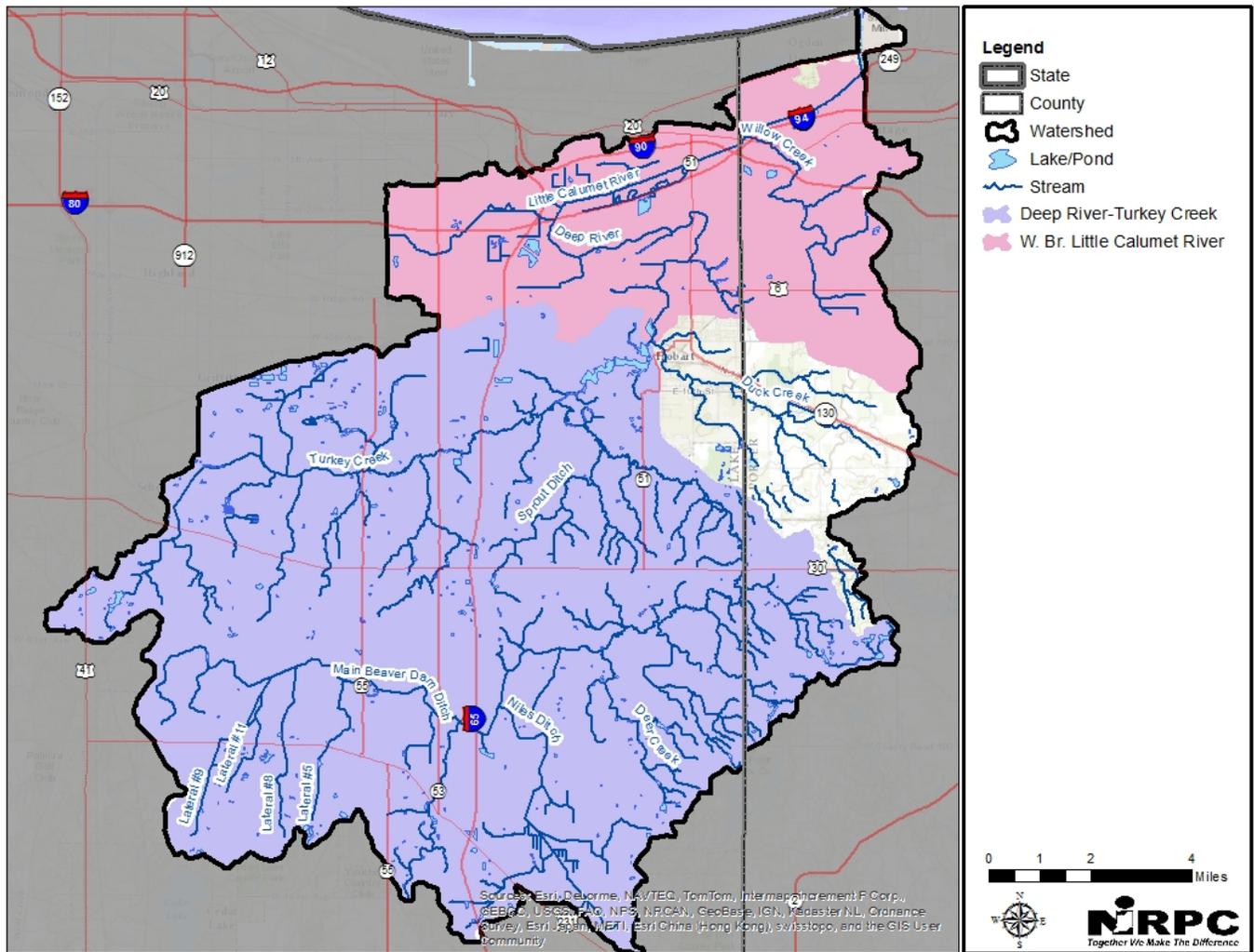


Figure 2 Previous Watershed Planning Efforts in the Current Project Area

One of the key hurdles faced by both watershed plans was that no project lead or organizational structure was set in place to coordinate implementation across multiple jurisdictions once they were completed. As a general observation the challenge seems to have been related to capacity (resources) rather than lack of interest given the amount of time invested by stakeholders. The challenge of sustaining such efforts is not unique to Northwest Indiana.

In 2011, the Northwestern Indiana Regional Planning Commission (NIRPC) identified the Deep River-Portage Burns Waterway watershed as a priority in the *Northwest Indiana Watershed Management Framework*. The decision to include the watershed as priority was based on persisting water quality issues, but more importantly, because the stakeholders continued to express interest in reinvigorating these past efforts. Feeling that there was enough support to update the 2002 and 2009 watershed plans into a single comprehensive plan, NIRPC began drafting some of the watershed characterization elements of the new plan. Additionally, knowing that more robust water quality data would be necessary to complete an update, a letter was sent to IDEM in June 2012 requesting that a Total Maximum Daily Load (TMDL) study and baseline assessment be initiated for the watershed.

Finally, after nearly two years of developing partnerships and gathering support, a Section 319 grant application was submitted to IDEM during the fall of 2012 by NIRPC to facilitate the development of a watershed management plan and begin implementing projects to improve water quality and aquatic habitats.

### 1.3 Stakeholder Involvement

On September 26, 2013, NIRPC sent out a press release announcing that the Deep River-Portage Burns Waterway Initiative project had been selected for funding by IDEM and that the project would officially begin in January 2014. A project kick-off meeting was held at the Hobart Community Center on January 21, 2014. NIRPC provided an overview of the four-year project and asked attendees why the value they value the watershed, how they use its streams and lakes, and what their initial concerns were relating to water quality and aquatic habitats. A second meeting was held on February 13, 2014 at the Lake County Soil & Water Conservation District (SWCD) in Crown Point to provide further opportunity for public input. The SWCD and Natural Resource Conservation Service (NRCS) helped promote this meeting by sending out personal invites to agricultural land owners within the watershed.

The following two tables are a summary of the responses provided by stakeholders during the public meetings held on January 21<sup>st</sup> and February 13<sup>th</sup>.

Values
<ul style="list-style-type: none"> <li>• Recreational opportunities (swimming, fishing, canoeing/kayaking, bird watching, photography)</li> <li>• Aesthetics</li> <li>• Deep River is one of the few rivers in NWI that still has large sections of natural meanders</li> <li>• Connects so many cities</li> <li>• Drains to and affects Lake Michigan</li> <li>• Habitat/natural areas and biodiversity</li> <li>• Wildlife (ex. bald eagles, golden eagle, sandhill cranes)</li> </ul>

Values
<ul style="list-style-type: none"> <li>• Quality of life</li> <li>• Sense of place</li> <li>• Parks and trails</li> <li>• Economic and tourism</li> <li>• Eventually becomes our drinking water</li> <li>• Beauty of Lake George</li> <li>• Mix of agricultural and urban land uses</li> <li>• Agricultural production and local produce</li> </ul>

Table 1 Stakeholder Watershed Values

Habitat Related Concerns
<ul style="list-style-type: none"> <li>• Stream (fish) habitat loss</li> <li>• Riparian area encroachment (urban and agriculture)</li> <li>• Species loss (biodiversity)</li> <li>• Wetland loss</li> <li>• Wetland habitat degradation</li> <li>• Invasive species (aquatic and terrestrial)</li> <li>• Habitat loss to development</li> <li>• Proper habitat restoration</li> <li>• Lack of conserved open spaces</li> <li>• Need to acquire public/quasi-public riparian lands</li> <li>• Long-term management of habitat</li> </ul>
Economic & Recreation Related Concerns
<ul style="list-style-type: none"> <li>• Loss of recreational opportunities</li> <li>• Ability of residents and tourists to use waters safely for recreation</li> <li>• Healthy fishery (fishing)</li> <li>• Impaired streams- may not help to promote recreation</li> <li>• Loss of economic development around lake</li> <li>• Beach closings</li> <li>• Impact to tourism</li> <li>• Negative impact on property values</li> <li>• Outdoor recreational access</li> <li>• Financial support of restoration activities</li> </ul>
Planning/Coordination/Management Related Concerns
<ul style="list-style-type: none"> <li>• Coordination amongst municipalities, businesses, and residents</li> <li>• Maintenance of existing plans</li> <li>• “Me first” mentality community management</li> <li>• Lack of common goals/ manage for different (competing) outcomes</li> <li>• Development standards protective of watershed</li> <li>• Uncontrolled development in unincorporated or rural areas</li> <li>• Enforcement of existing regulations to protect stream health</li> <li>• Not enough inspection and monitoring</li> <li>• Loss of cropland to development</li> <li>• Maintenance of BMPs installed</li> </ul>

<ul style="list-style-type: none"> <li>• Lack of retention/detention pond maintenance</li> <li>• Some absentee agricultural landowners that seem to be land speculators with less interest in investing in BMPs to protect water quality</li> <li>• Management of waterways strictly for drainage and not inclusive of water quality and habitat</li> <li>• Maintain drainage while protecting the quality of resources</li> </ul>
<p><b>Watershed Processes Related Concerns</b></p>
<ul style="list-style-type: none"> <li>• Drainage- ability of watershed to absorb and/or carry away excess water</li> <li>• Ability of watershed to clean water by removing pollutants and provide stable habitat for wildlife (green infrastructure)</li> <li>• Storm water storage</li> </ul>
<p><b>Storm Water Runoff (Sediment, Nutrient, &amp; Pathogens) &amp; Erosion Related Concerns</b></p>
<ul style="list-style-type: none"> <li>• Erosion and sedimentation</li> <li>• Excess nutrients</li> <li>• Increased runoff volume carrying pollutants and causing erosion</li> <li>• Streambank and shoreline erosion</li> <li>• Sediment loading from urban and agricultural areas</li> <li>• Dredging Lake George impacts to shoreline erosion</li> <li>• Sedimentation of Lake George from upstream areas</li> <li>• Failing septic systems</li> <li>• Impervious surface area</li> <li>• Chemicals in runoff</li> <li>• Areas of severe goose feces</li> <li>• Construction site runoff</li> <li>• Parking lot runoff</li> </ul>
<p><b>Groundwater &amp; Drinking Water Related Concerns</b></p>
<ul style="list-style-type: none"> <li>• Groundwater pollution (wells)</li> <li>• Drinking water</li> </ul>
<p><b>Floodplains/Flooding/Drainage Related Concerns</b></p>
<ul style="list-style-type: none"> <li>• Flooding</li> <li>• Reconciling need for drainage/flood control with water quality and habitat</li> <li>• Floodplain/floodway encroachment</li> <li>• People view water as “enemy”</li> <li>• Stream flashiness</li> </ul>
<p><b>Miscellaneous Concerns</b></p>
<ul style="list-style-type: none"> <li>• Soil health</li> <li>• Dams</li> <li>• Lack of public interest if conditions do not improve</li> <li>• Public involvement</li> <li>• Landowner/homeowner buy-in</li> <li>• Trash left behind after floodwater recede</li> <li>• Need to give upper reaches of watershed and subwatersheds special consideration</li> </ul>

- Combined sewer overflows (CSOs) and sanitary sewer overflows (SSOs)
- Public health (water related)
- Water quality impacts to Lake Michigan
- Dredging Burns Ditch and Lake George

Table 2 Stakeholder Watershed Concerns

### 1.4 Steering Committee

Stakeholders were invited to participate in a special meeting on March 6, 2014 to discuss the formation of a watershed steering committee to help guide the development and implementation of this watershed plan. The general consensus of the participants was to use the “potential list of stakeholders” included in the *Northwest Indiana Watershed Management Framework* as a starting point.

The steering committee is broken into general categories that include representatives from municipalities, county or regional agencies/departments/districts, environmental and conservation organizations, recreational groups, business and industry, universities, and state and federal government (Table 3). The steering committee, like the watershed plan itself, is dynamic and will likely include minor changes as the initiative moves forward.

The primary role of the Deep River-Portage Burns Waterway Initiative steering committee is to:

- Operate as a coordinating and information exchange group to help establish strategic direction and priorities for watershed restoration.
- Recommend key actions and projects needed to improve environmental conditions in the watershed.
- Seek support and resources for the initiatives/projects that it recommends.

Municipal	Representative
Crown Point	Dan Niksch
Hobart	Tim Kingsland, Sergio Mendoza*
Gary	Brenda Scott-Henry
Merrillville	Matt Lake
New Chicago	Alicia Barber, Lori Reno*
Portage	Jenny Orsburn
County or Regional	Representative
County Soil & Water Conservation Districts	Julie Duttlinger (Lake Co.), Harvey Nix (Porter Co.)
County Surveyors Offices	Bill Emerson (Lake Co.), Kevin Breitzke (Porter Co.)
Lake County Parks Department	Craig Zandstra
Little Calumet River Basin Development Commission	Dan Repay
Environmental & Conservation	Representative
Izaak Walton League- Porter County Chapter	Jim Sweeney
The Nature Conservancy	Susan MiHalo
Save the Dunes	Dr. Candice Smith
Shirley Heinze Land Trust	Paul Quinlan

Sierra Club	Sandy O'Brien
<b>Recreation</b>	<b>Representative</b>
Northwest Indiana Paddling Association	Dan Plath, Gina Darnell*
<b>Business &amp; Industry</b>	<b>Representative</b>
Northwest Indiana Forum	Kay Nelson
The Wildlife Habitat Council	Daniel Goldfarb
<b>Universities/Colleges</b>	<b>Representative</b>
IL-IN Sea Grant	Leslie Dorworth, Courtney Blouzdis*
<b>State &amp; Federal Agencies</b>	<b>Representative</b>
Natural Resource Conservation Service	Bill Moran
Indiana Department of Environmental Management	Ashley Snyder, Michelle Caldwell*
Indiana Department of Natural Resources	Dorreen Carey
Indiana Dunes National Lakeshore	Dr. Charles Morris
Indiana State Department of Agriculture	Julie Morris, Sarah Wolf*

Table 3 Steering Committee Members and Representative

\* Denotes alternate representative

