Dexter Township Green Infrastructure Planning
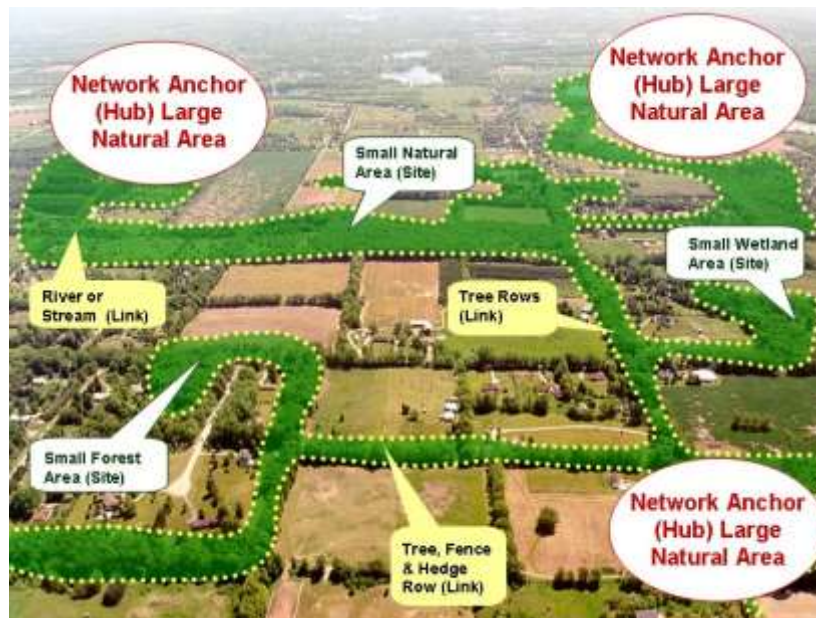
Vision Session

March 7, 2013

Design Session Participants

Libby Brushaber – Dexter Township Board
Paul D. Chalmer – Dexter Township resident
Chuck Dennison – Michigan Department of Natural Resources
Jim Drolett - Dexter Township Zoning Board of Appeals
Tom Ehman - Dexter Township Planning Commission **Rebecca Esselman -** Dexter Township resident
Joseph P. Hoeflinger - Dexter Township resident
Pat Kelly – Dexter Township Supervisor
Susan Lackey – Legacy Land Conservancy
William Mannino – Dexter Township resident
Zach Michels – Dexter Township Zoning Administrator
Kris Olsson – Huron River Watershed Council
Lisa Sylvest - Dexter Township resident

- Introduction
- Background Resource Maps
- Process for Hands-on Assessment
- Draft Design Session Green Infrastructure Map
- Next Steps – Community Planning for Green Infrastructure
- References

INTRODUCTION

Project Description

The Huron River Watershed Council (HRWC) and Dexter Township have partnered to create this document as part of the Portage Creek Implementation Project. The goals of the project are to increase awareness about the importance of protecting Portage Creek's ecology and to improve local policies to ensure it remains a high quality creek. In order to provide a context for those goals, the township and HRWC decided to embark on this visioning process, based on Oakland County's Green Infrastructure program.

Green infrastructure networks consist of the following components:

Hubs: Hubs anchor the network and provide an origin or destination for wildlife. Hubs range in size from large conservation areas to smaller parks and preserves. Hubs provide habitat for native wildlife and help maintain natural ecological processes.
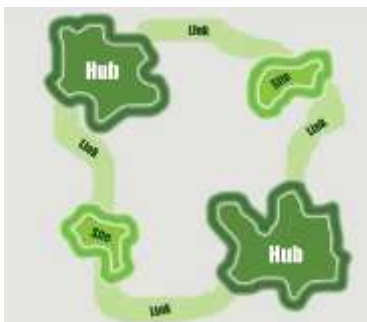
Sites: Smaller ecological landscape features that can serve as a point of origin or destination or incorporate less extensive ecological important areas.

Links: The connections that hold the network together and enable it to function. Links facilitate movement from one hub to another.

What is Green Infrastructure?

Green infrastructure is the interconnected network of large natural areas, wildlife habitats, riparian corridors and areas that reflect key elements of our biological diversity. This network supports native species, maintains natural ecological processes, sustains air and water resources, and contributes to our health and quality of life. The Green Infrastructure outlined in this document is a proposed network to link the Huron River watershed's remaining ecologically valuable lands. The goal is to maximize the effectiveness of public and private land conservation efforts, and to ensure land development occurs in concert with Green Infrastructure.

What are the benefits of Green Infrastructure?

Green infrastructure provides a mechanism to identify and blend environmental and economic factors creating a multitude of social, economic, cultural and environmental benefits.

• Provides a sense of place and a unique identity

- Decreases cost of public infrastructure (e.g. stormwater management & water treatment systems)
- provides active and passive recreational opportunities
- Increases property values
- Helps preserve our unique quality of life
- Maintains naturally functioning ecosystems
- Helps to attract new businesses and well- qualified workers

What is in this document?

This document is a result of the Green Infrastructure Planning Vision Session, March 7, 2013, at the Dexter Township Hall. At that session, township officials, residents, and other stakeholders studied the maps shown on pages 8 - 15 and then created Hubs, Sites, and Links, drawing onto transparent mylar sheets laid over those maps (pages 16 – 18). HRWC took those sheets and created the Green Infrastructure Map (page 19).

Next steps

Page 20 lists next steps Dexter Township and its partners can undertake to ensure that the township's Green Infrastructure continues to provide habitat, recreation, water quality, clean air, and other benefits.

Dexter Township's Green Infrastructure

Mostly undeveloped

44% intact natural areas ("bioreserve" sites)

About half of natural area is publicly owned

Low impervious surface (about 7%) (creeks and wetlands begin to become degraded in areas where impervious surfaces make up more than 10% of their watersheds)

78 species of threatened, endangered or special concern animals and plants
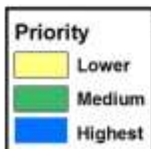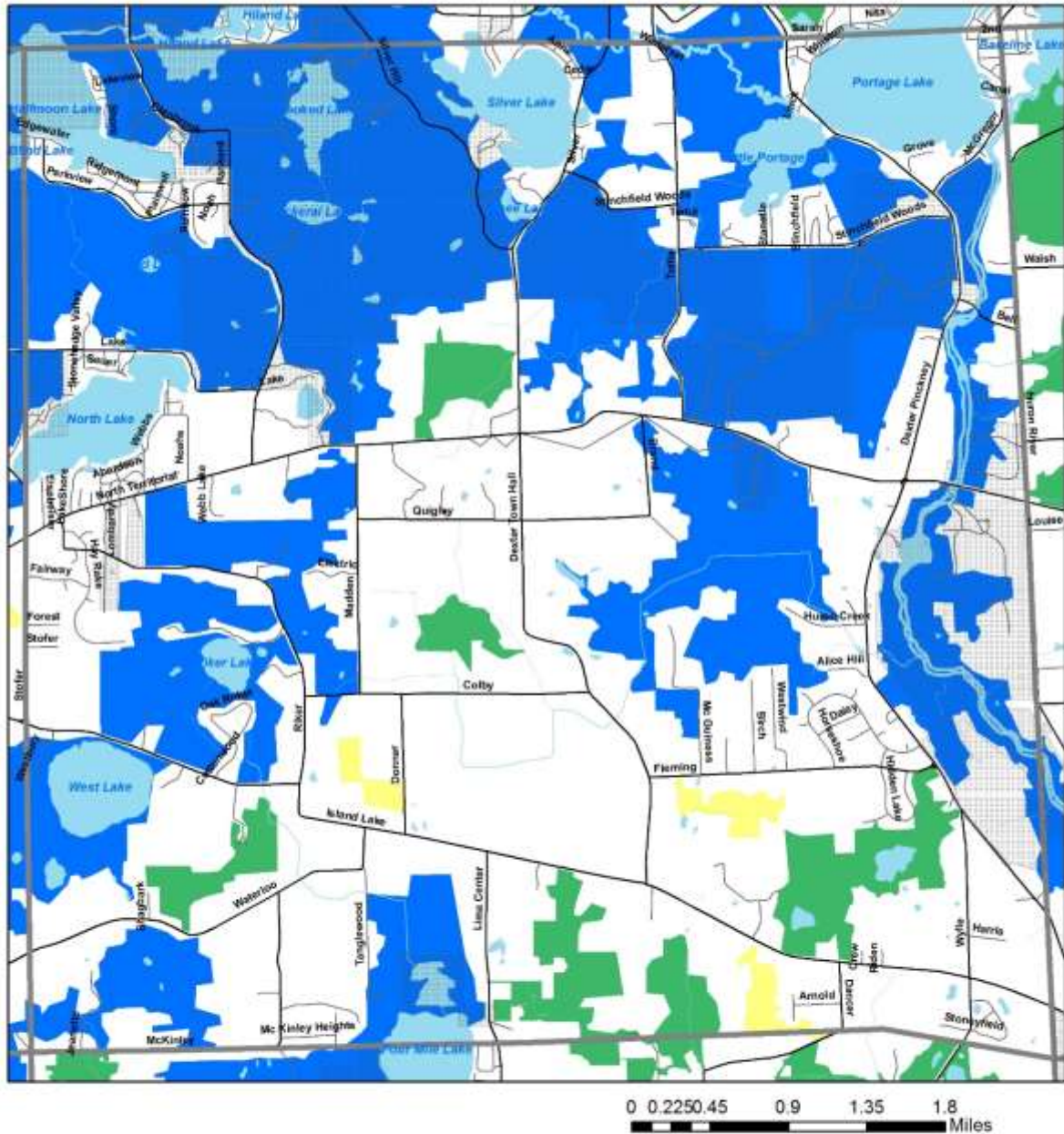
11 ecosystems of special concern

Background Resource Maps

- HRWC Bioreserve Map
- Environmentally Sensitive Areas
- Master Plan
- 2000 Land Use
- Topography
- Green Infrastructure Planning Map

Dexter Township's Remaining Natural Areas

Huron River Watershed Council — Protecting the river since 1965

0 0.225 0.45   0.9   1.35   1.8
Miles

Priority
- Lower (yellow)
- Medium (green)
- Highest (blue)

Conservation and Recreation Lands

Sites delineated from digital orthophotos circa 2000, ranked based on 15 ecological factors, including: size, presence of water, presence of wetlands, groundwater recharge potential, potential for rare remnant plant community, topographical diversity, glacial diversity, connectivity to other natural areas, restorability potential, and quality of vegetation.

For more information, contact Kris Olsson, Huron River Watershed Council
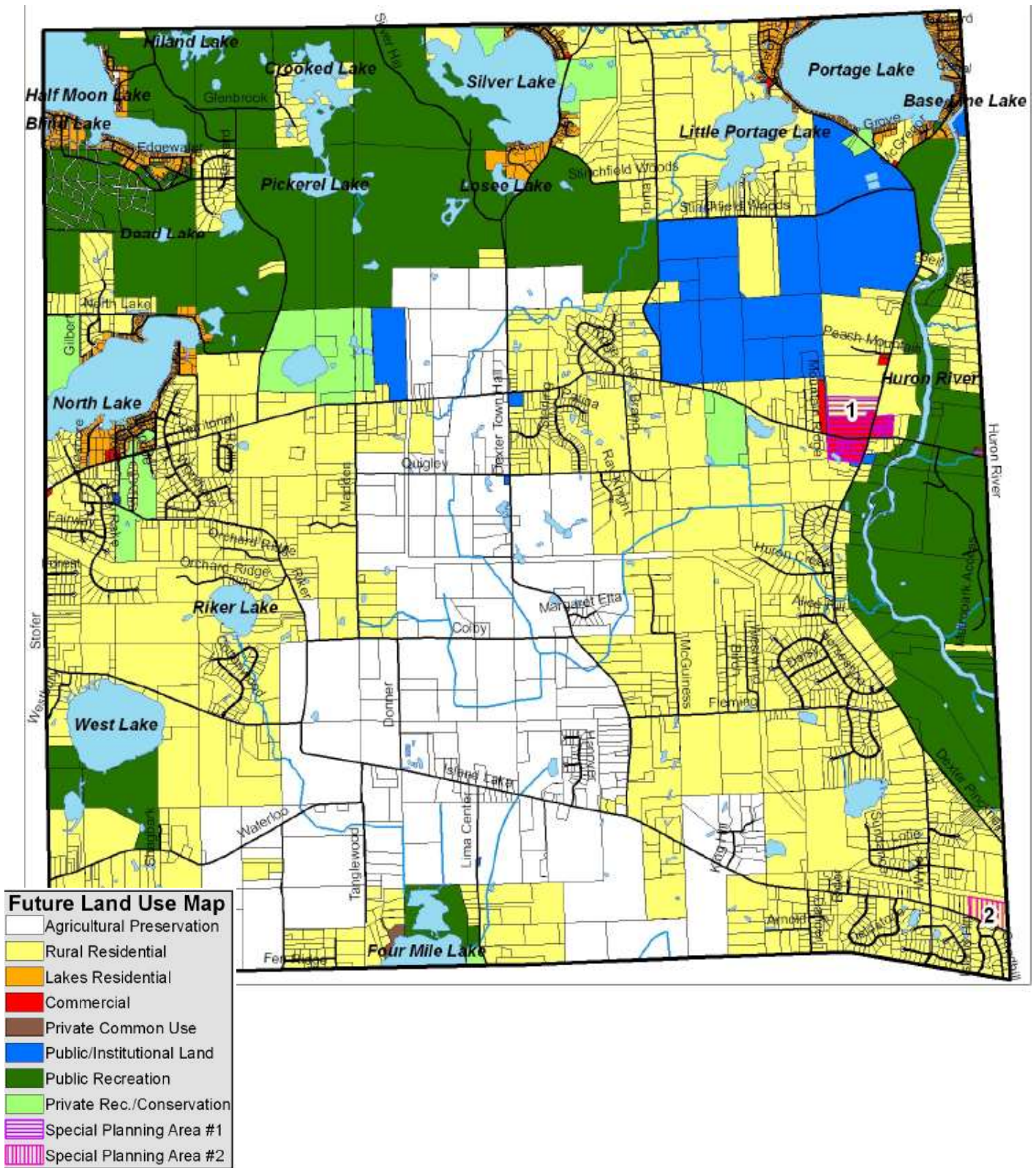734-769-5123, kolsson@hrwc.org

Environmentally Sensitive Areas
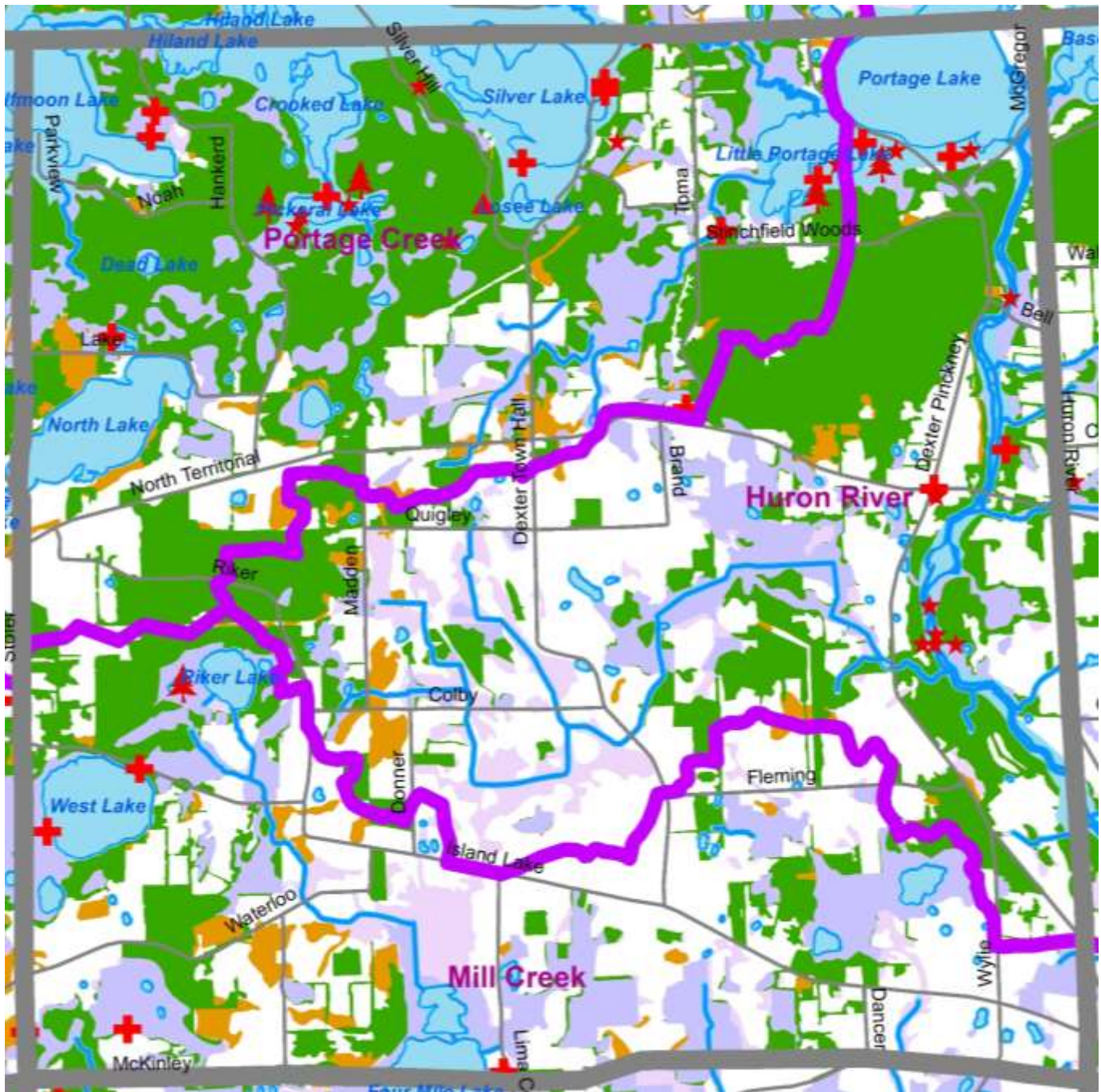
Floodplains/Riparian area
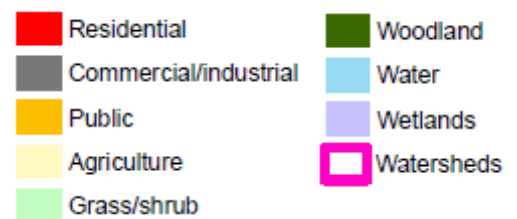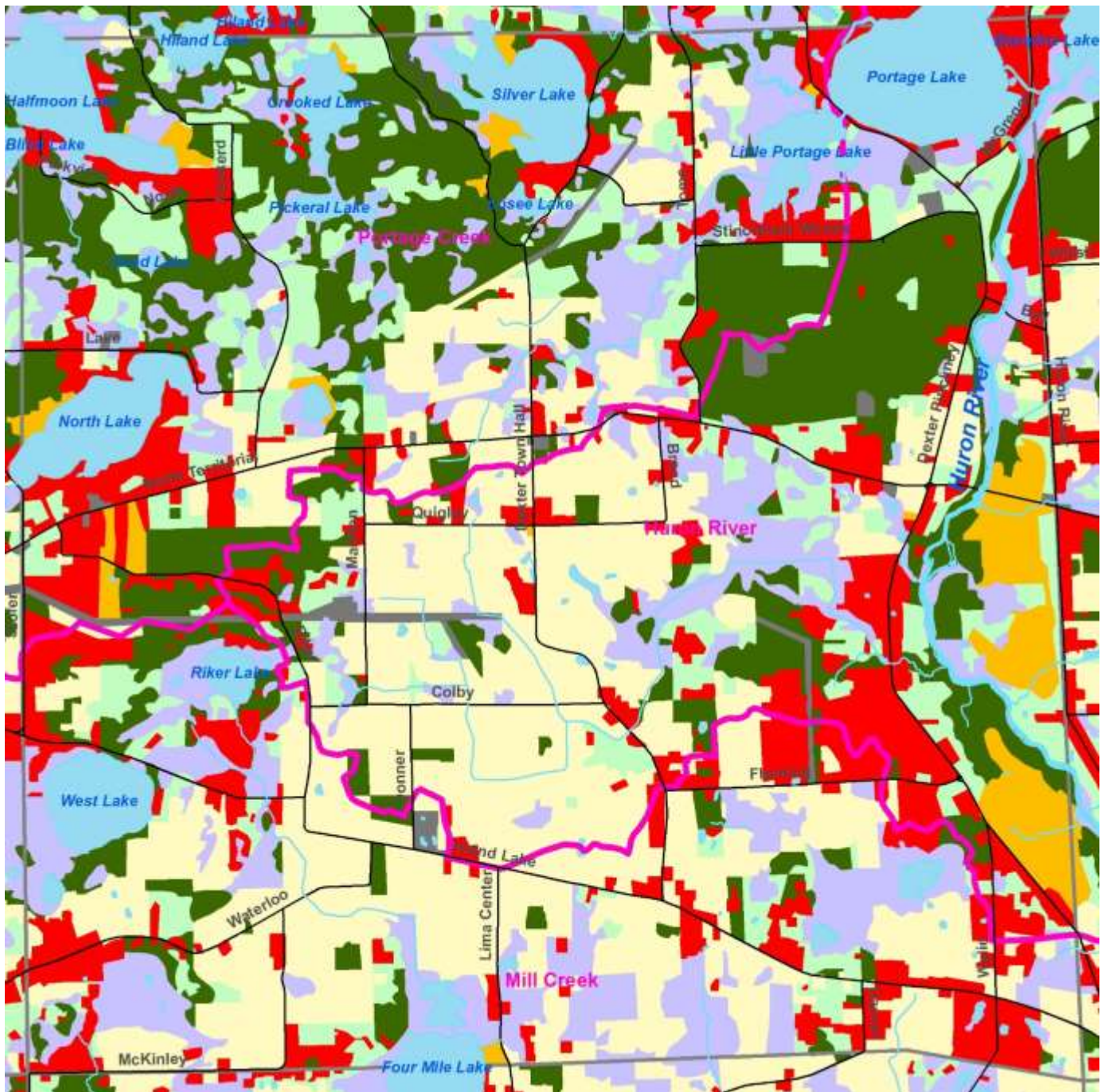Woodland
Wetlands
Slopes over 12%
Hydric soils

Endangered/threatened:
★ Animal
🌲 Community
▲ Other
✚ Plant

Master Plan

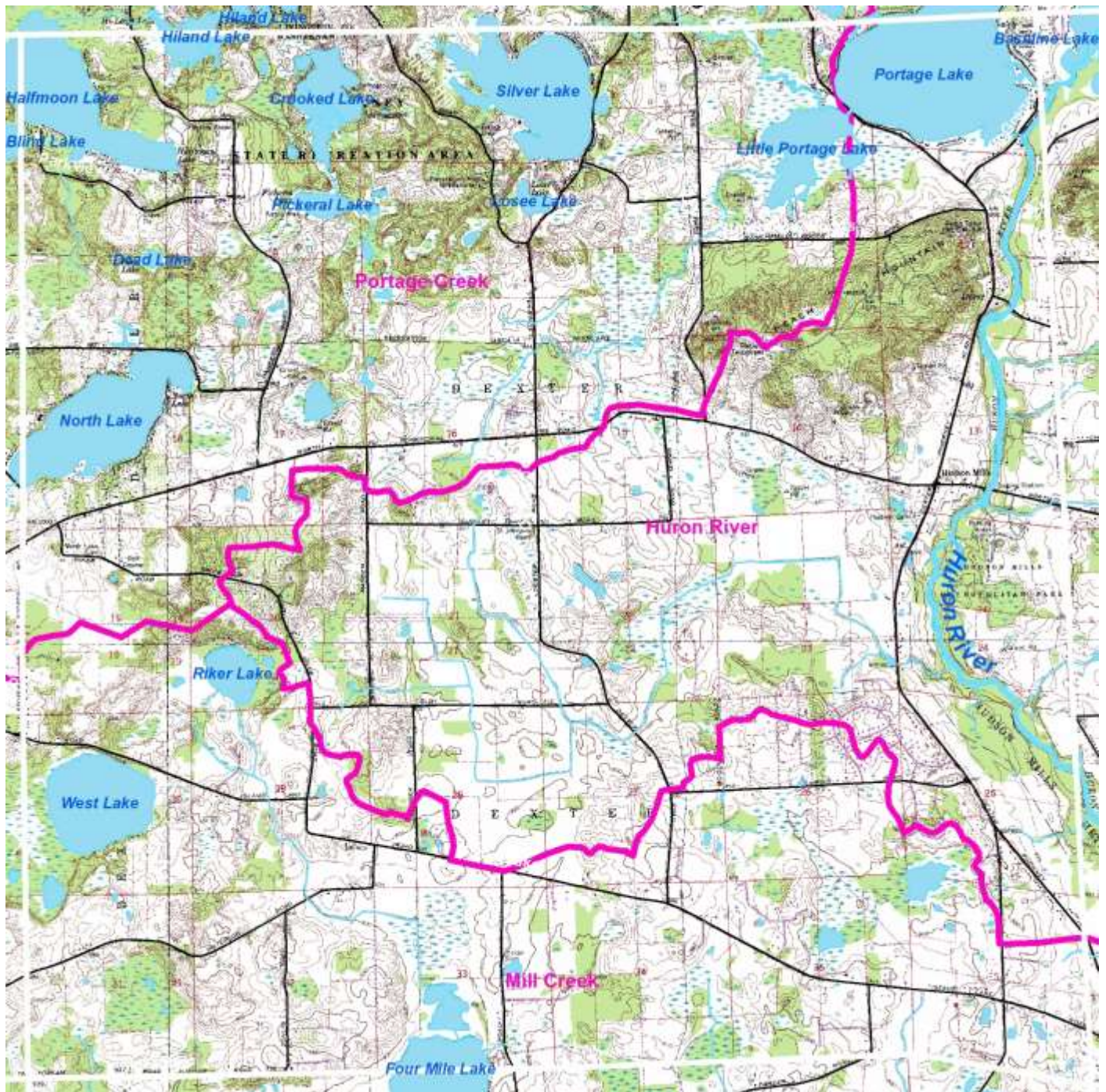**Future Land Use Map**
- Agricultural Preservation
- Rural Residential
- Lakes Residential
- Commercial
- Private Common Use
- Public/Institutional Land
- Public Recreation
- Private Rec./Conservation
- Special Planning Area #1
- Special Planning Area #2

2000 Land Cover

Legend:
- Residential
- Commercial/industrial
- Public
- Agriculture
- Grass/shrub
- Woodland
- Water
- Wetlands
- Watersheds

U.S.G.S. Topography

Topography: Lines
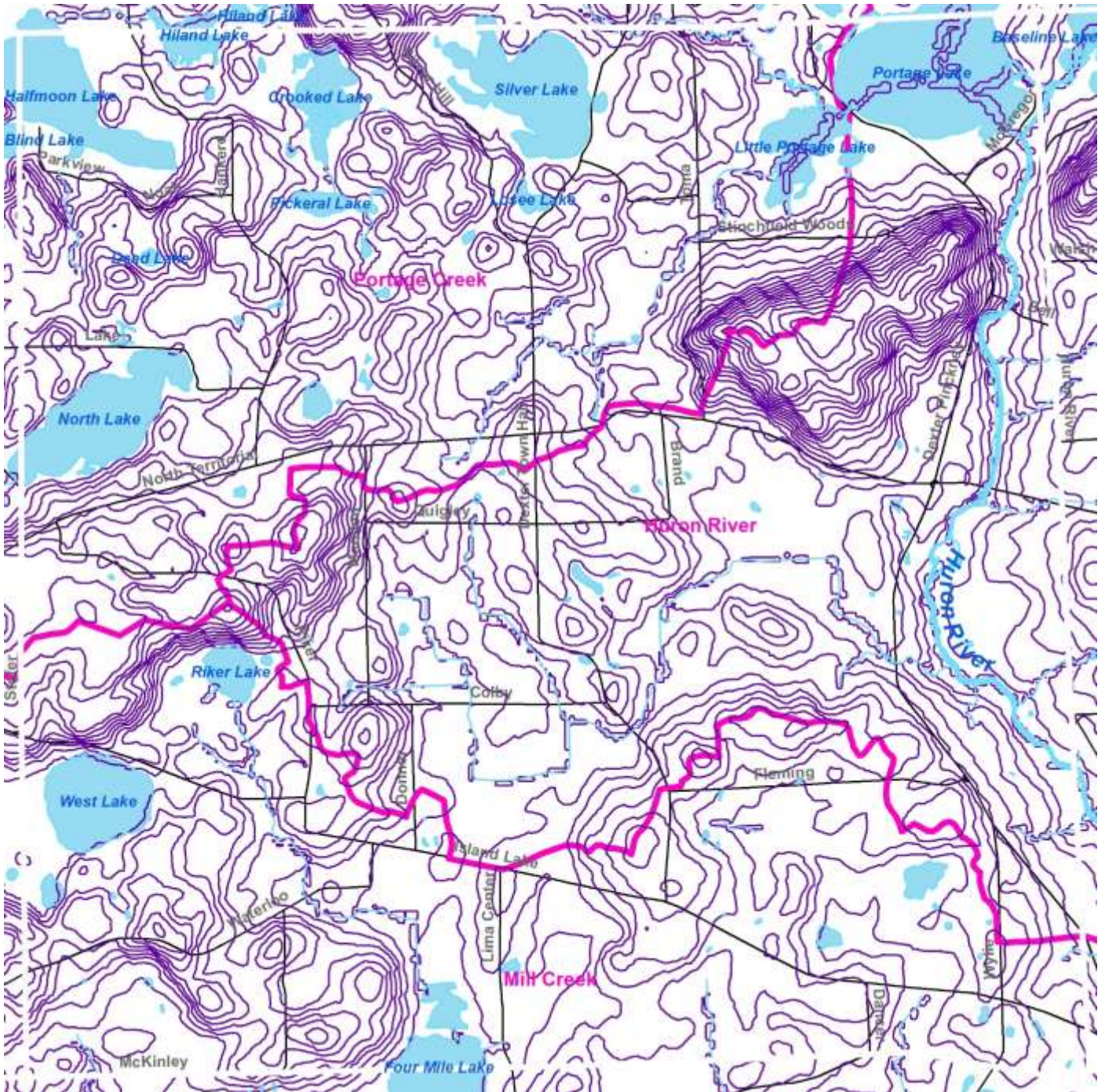
Topography: Shaded

Green Infrastructure Planning Map

Bioreserve Sites

- Lower priority
- Higher priority
- Highest priority

White Hatch — **Conservation and Recreation Lands**

Huron River Watershed Boundary
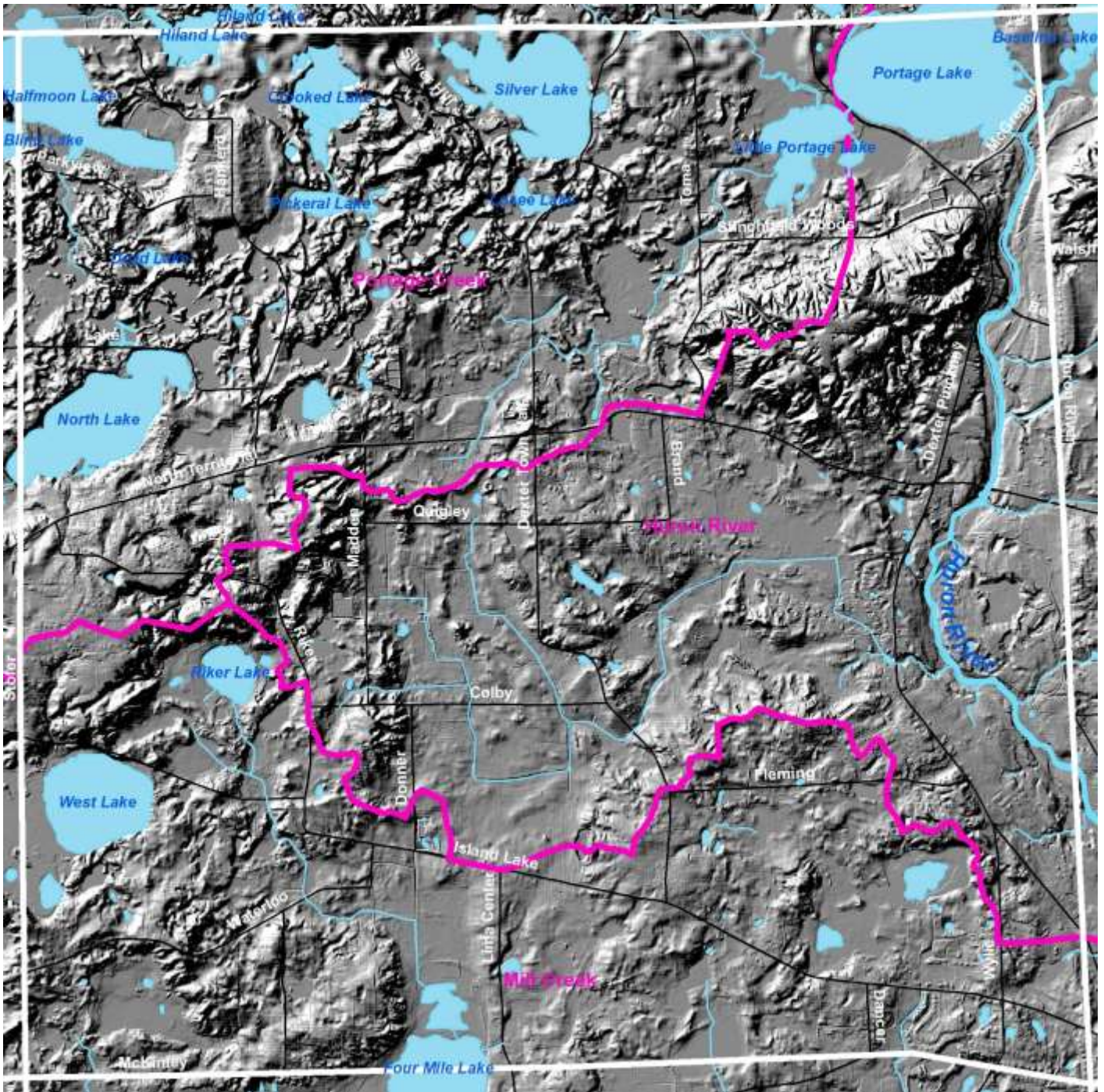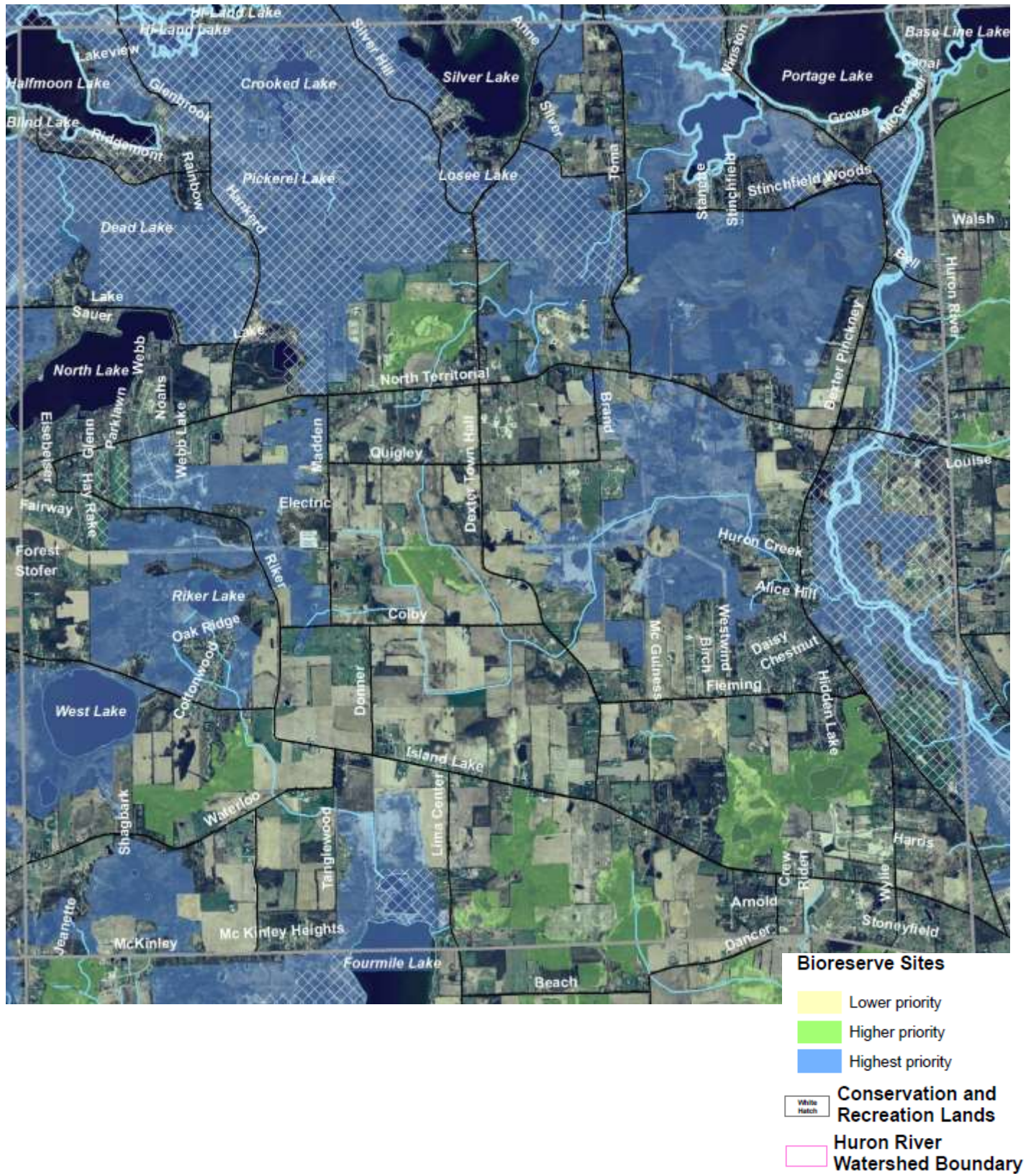
Process for Hands On Assessment

1. Examine Maps

2. Determine habitat hubs, and outline on map with red ink.

Hint

Hubs anchor the network and provide an origin or designation for wildlife. The Bioreserve Map provides a good place to start

Outline your hubs with ●

3. Identify smaller ecological landscape features (sites) that can serve as a point of origin or detination or incorporate less extensive ecologically important areas.

~Hint~
Look for lower ranked Natural Areas (Priority Two or Priority Three) along with smaller woodlots and wetlands.

Outline your sites with ●

4.   Create the best possible connections between hubs using the smaller ecological landscape features (sites) as stepping stones. Use riparian linkages whenever possible.


Outline your links with

~Hint~
In general, the wider the corridor the better and the longer the corridor the wider it should be.

5.   Identify Special Features that fall outside the system or have unique connection or importance within the community.

Mark your special conservation areas with a yellow dot

~Hint~
Appropriate areas may be a wetland, pond, woodlot stream or wildflower patch known only to local residents.
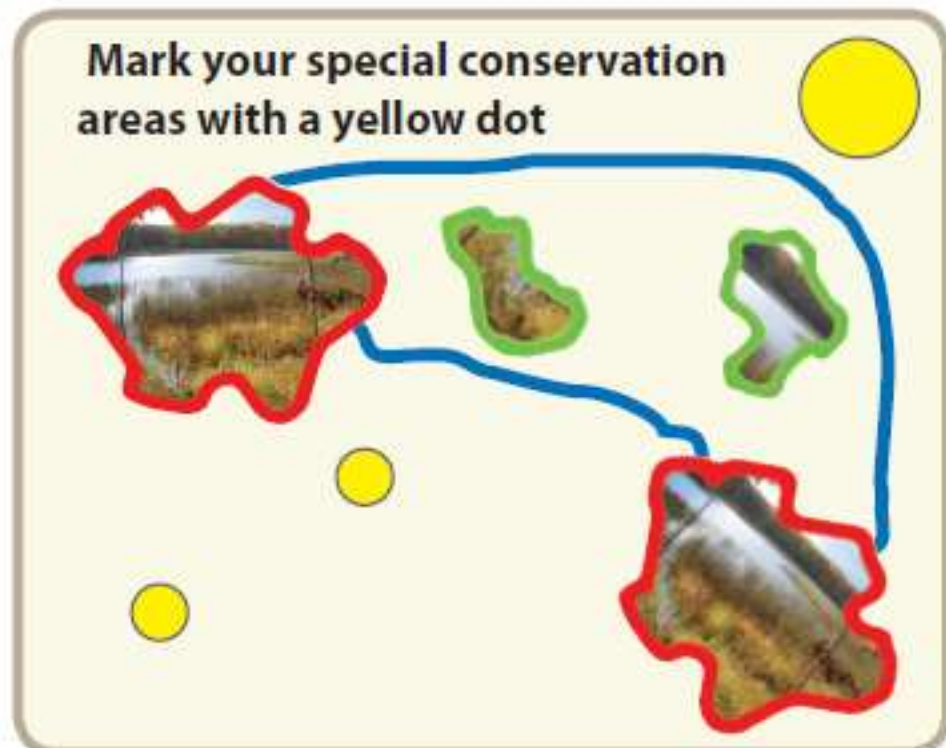
6.   Label your system (hubs and links) and add names that help identify the site locally.

Draft Green Infrastructure Map

Legend:
- Hubs
- Links
- Sites
- Streams w 100 ft buffer
- Special Features
- Conservation and Recreation Lands

Next Steps – Community Planning for Green Infrastructure

• Verify the draft Green Infrastructure Vision Map

• Determine best land management tools

• Review master plans, ordinances, and related planning documents

• Establish conservation goals, funding options, and tracking mechanisms

• Amend Master Plans to favor preservation of green infrastructure, and encourage green development proposals and better site design

• Adopt Local Ordinances for Resource Protection woodland, wetland, riparian, stream, and floodplain ordinances

• Revisit community Regulations & Development Standards for lot sizes, setbacks, parking and street standards, drainage regulations

• Offer Incentives to developers to integrate green development design density compensation, buffer averaging, stormwater credits, transferable development rights, etc.

• Adopt regulations and policies that guide development within a framework of ecological structure and function.

• Educate home buyers & community residents about the open space conservation concept

References

The Conservation Fund. Green Infrastructure: A Strategic Approach to Green Space Planning and Conservation Train-the-Trainer. 2002.

Livingston County Department of Planning. Livingston County's High-Quality Natural Areas. 2003.

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