



**Northeast Minnesota
Wetland Mitigation
Inventory**

SWCD Ground Truthing

7/10/2008

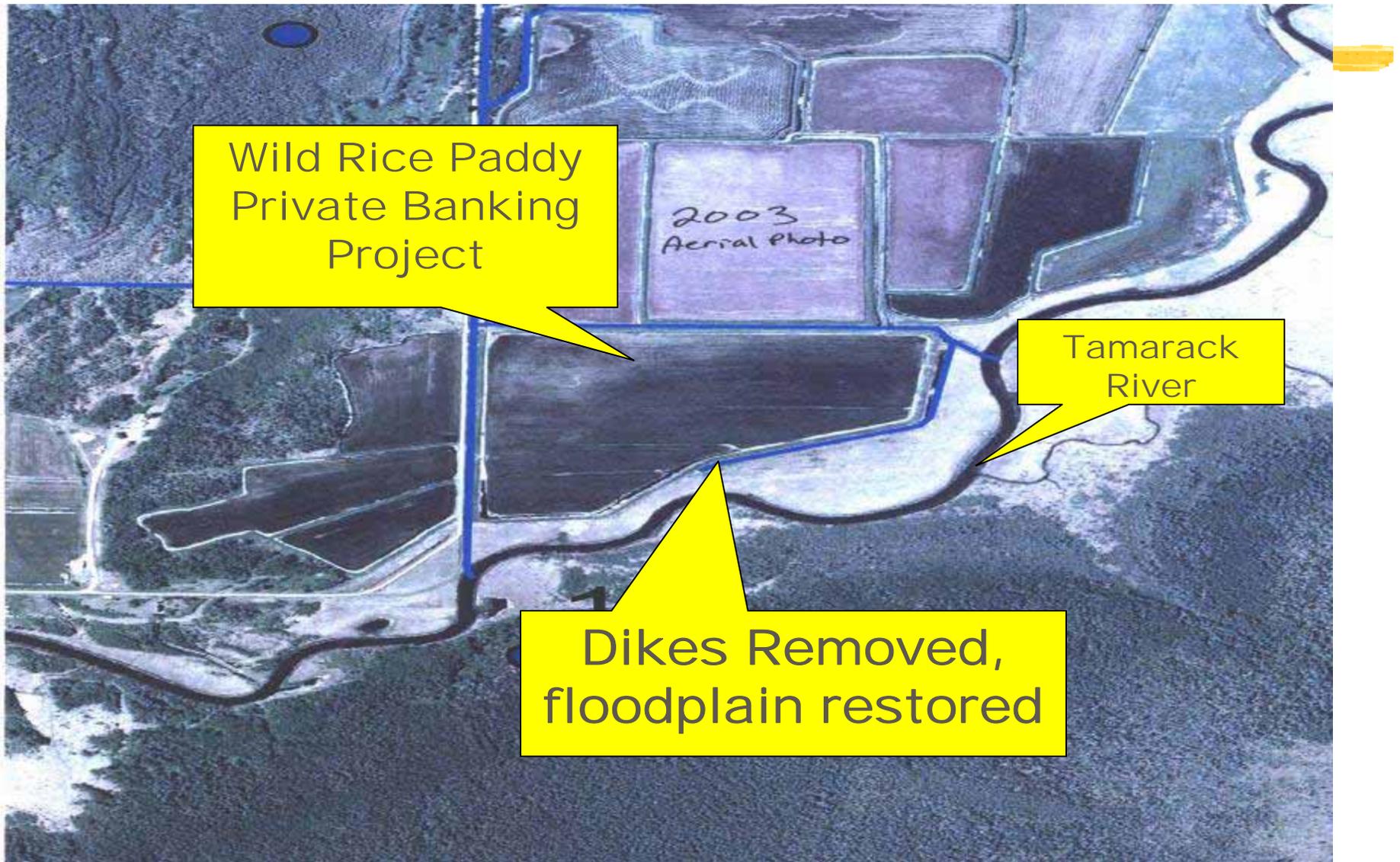
Agenda



- ***Strategy Goal – Find Good Wetland Mitigation Opportunities in Our Area.***
- ***You're Help is Needed!!***
- ***Actions Eligible for Credit.***
- ***How You Can Help - Ground truthing Effort***
- ***Questions?***

So, What Are We Looking For?

Example: Beltrami County Rice Paddy Restoration



Itasca County Site - Good example of floodplain restoration



Your Help is Needed!!



- **BWSR is looking for SWCD Partners to field truth the GIS Model**
- **SWCDs would evaluate whether sites qualify for one of the Actions eligible for Credit (Minnesota Rules 8420.0541)**
- **As part of proposed permanent rules, there may be several new options.**
- **Let's review the type of projects the inventory would like to identify....**

Actions Eligible for Credit



- **Restoration**
- **Enhancement**
- **Creation**
- **Preservation**

ACTIONS ELIGIBLE FOR CREDIT:

Restoration of Completely Drained Wetland Areas



- Not common in northern Minnesota
- Best option for credit, usually 100% credit
- Find landowners who are interested

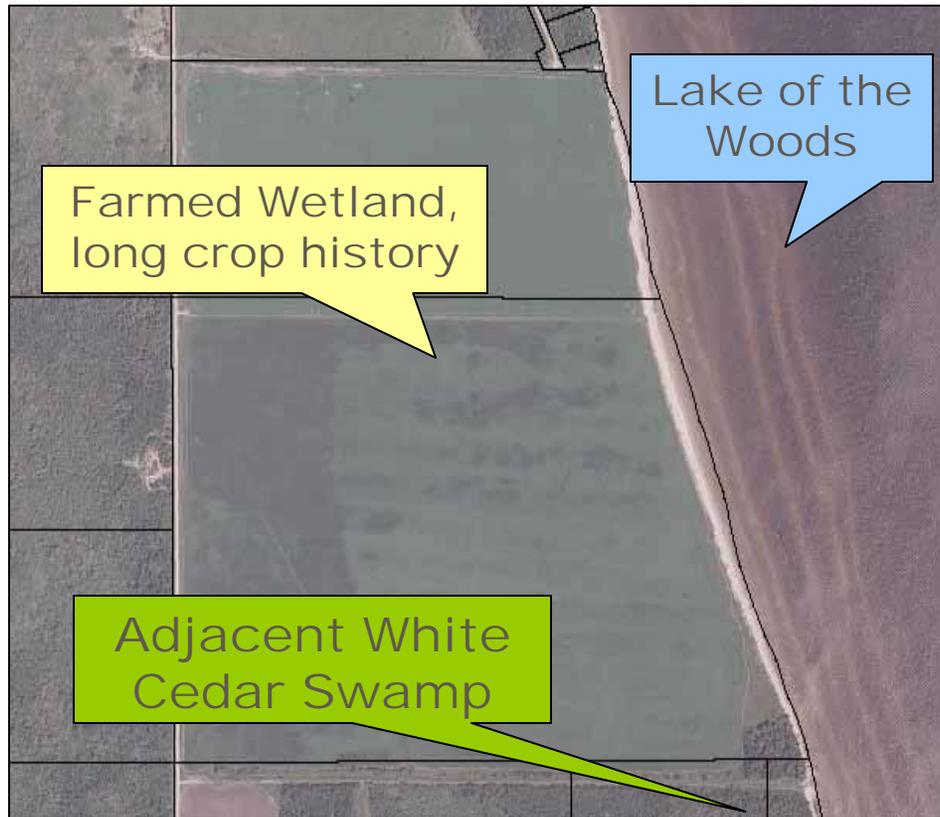
ACTIONS ELIGIBLE FOR CREDIT:

Restoration of Partially Drained Wetland Areas



- More common in northern Minnesota
- Currently up to 25% credit in >80%
- Proposed new rule language would allow 50 to 75% credit

ACTIONS ELIGIBLE FOR CREDIT: Restoration of Farmed Wetlands



- Common in north central Minnesota
- Up to 100% credit, based on crop history (20 out of 20 years)
- Key category in Northern Minnesota

ACTIONS ELIGIBLE FOR CREDIT:
Mineral Extraction Reclamation



- Generally costly type of project
- Credit areas limited to areas where mineral extraction has occurred in last 10 years
- May have some limited potential for Arrowhead of NE Minnesota

ACTIONS ELIGIBLE FOR CREDIT:

Exceptional Natural Resource Value Projects



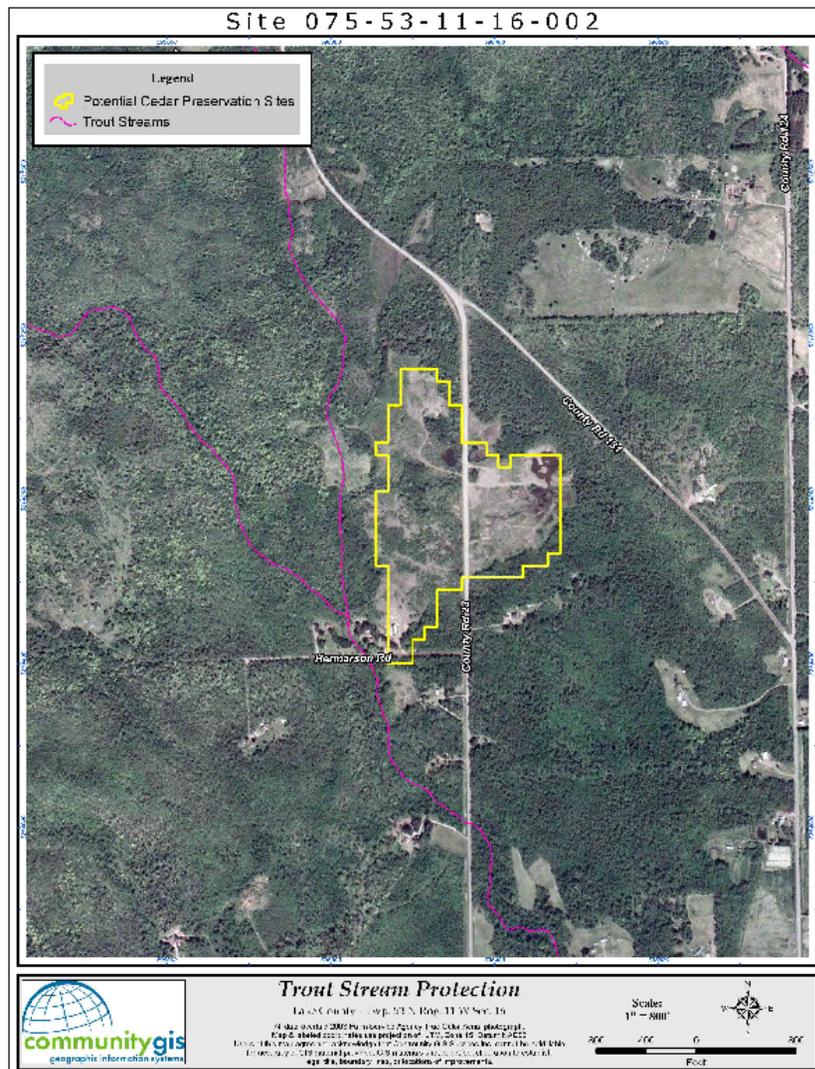
- Must be exceptional site such as white cedar (see guidance)
- Up to 100% credit, based on functional assessment
- Key category in Northeastern Minnesota

“Exceptional” Definition Includes

Other Possibilities

- The word **exceptional** in this subpart means that replacement plans that use this method of allocating credits should be restricted to projects that:
- Restore values listed under 8420.0548 Special Considerations including:
 1. i. endangered and threatened species
 2. ii. rare natural communities,
 - iii. special fish and wildlife resources (*especially fish passage and spawning areas, colonial water bird nesting colonies, migratory waterfowl concentration areas, deer wintering areas, and wildlife travel corridors*),
 - iv. groundwater sensitivity,
 - v. sensitive surface waters, and
 - vi. educational or research use.

ACTIONS ELIGIBLE FOR CREDIT: PROPOSED, NEW - Water Quality and Wildlife Habitat Enhancement



- Proposed new rule language for >80% areas
- Credit for enhancing wetland functions by improving surrounding upland
- Credit limited to 12.5% of area restored

ACTIONS ELIGIBLE FOR CREDIT: **NEW in Statute -
Wetland Preservation**



- 2008 statute change, limited to >80% areas
- Limited to public lands (owned by state or local unit of government)
- Credit limited to 12.5% of area preserved (100 acres preserved = 12.5 acres of credit)

How You Can Help

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SWCD Ground Truthing Effort



- **SWCDs would inspect 5 – 30 sites**
- **BWSR would contract with an SWCD which would pay participating SWCDs upon submission of complete data forms (and site photos taken)**
- **Work needs to be completed by October 30, 2008**

NE Ground Truthing Budget

Item	Projected (Number or cost)	Total (for study area)
<u>Site Inspections</u> (number)	5 - 30 (per county)	215 sites
<u>Site Inspections</u> (cost)	\$200 (per site)	\$43,000
<u>Estimated Labor Commitment</u> (hours)	2 to 4 hours per site (including drive time)	430 – 645 hours

SWCD Ground Truthing Effort



- **SWCDs should let BWSR know if interested by August 10, 2008**
- **BWSR would conduct training session early August**
- **BWSR would provide list/maps of potential projects for SWCD inspection (plus \$ cap)**
- **Work needs to be completed by October 30, 2008**
- **SWCDs would be reimbursed by fiscal agent upon submission of completed data forms (and site photos taken) to BWSR**

SWCD Ground Truthing Effort



- **Participating SWCD receives site packet (aerial photo/map, location information)**
- **SWCD contacts landowner to try to gain access to property *(if denied, go to next on list)***
- **Staff may need to access additional site information in office**
- **SWCDs may provide fact sheet to landowner**
- **Site inspection to collect information, complete data form, collect 4 photos of site**

Ground Truthing Information Packet



- **County Map with Sites**
- **Individual Site Maps**
- **2 Page - Data Sheets in Check List Format**

2-Page Data Form

Northeast Wetland Mitigation Inventory technical Committee Meeting Draft Prioritization Factors/Ground Truthing Form – June 23, 2008

Form Instructions: This form is intended to assist in gathering information to assess the value of potential wetland mitigation opportunities within the northern Minnesota watersheds. It is intended to be a rapid field assessment with an estimated site visit time of 15 to 30 minutes utilizing map data provided along with field observations. This is not meant to be a detailed field characterization.

Monitoring Specialists	Assessment Date:		Site Number:
Site Location:			
	Section	Township	Range
	County		

Ground Truthing – Factors to consider in assessing a potential mitigation site:

1. **Actions eligible for credit, check all that are likely to apply to the site:**

- a. Restoration: Drained wetland Partially drained wetland Farmed wetland Fill removal
 b. Restoration/ Preservation: White cedar swamps Wetlands adjacent to trout waters
 Wetlands with T & E species or rare natural communities
 Other (special fish and wildlife resources, ORVW) _____
 c. Enhancement: Invasive Species Reforestation of wetlands Impaired watershed enhancement
 d. Creation: Mineral extraction site Other _____

2. **Are there multiple landowners within the potential mitigation area? (How many?)** _____

3. **Current site hydrology and will it need to be modified? Check all that apply.**

- Deep drainage ditches (ditches deeper than 2 feet resulting in some subsurface drainage)
 0-25% 25-50% 50-75% >75% (percent of ditches maintained)
 none few (3-4) >4 (Beaver dams present)
 Shallow surface ditching (ditches <2 feet deep draining only surface water)
 Drain tile (look for tile outlets into ditches surface inlet flags, etc.)
 Diking, dams, other structures (i.e. wild rice farming, other hydrologic control)
 Watershed diversion (i.e. diversion around property or to property with control structures for flooding fields)
 Pumping (i.e. pump stations with electricity for flooding wild rice fields)
 Lowered outlet
 Is there upstream drainage through site from other wetlands, streams, ditches, lakes, etc.?

4. **What are the likely natural wetland types that could be restored, created, preserved or enhanced?**

(This will depend on the method, site topography, local landscape, adjacent wetland communities, and soils.)

<input type="checkbox"/> conifer swamps	<input type="checkbox"/> shallow marsh	<input type="checkbox"/> alder thickets	<input type="checkbox"/> wet meadows
<input type="checkbox"/> hardwood swamps	<input type="checkbox"/> deep marsh	<input type="checkbox"/> shrub cars	<input type="checkbox"/> sedge meadows
<input type="checkbox"/> open bogs	<input type="checkbox"/> conifer bogs	<input type="checkbox"/> open water	

5. **Approximate restoration area (acres)**

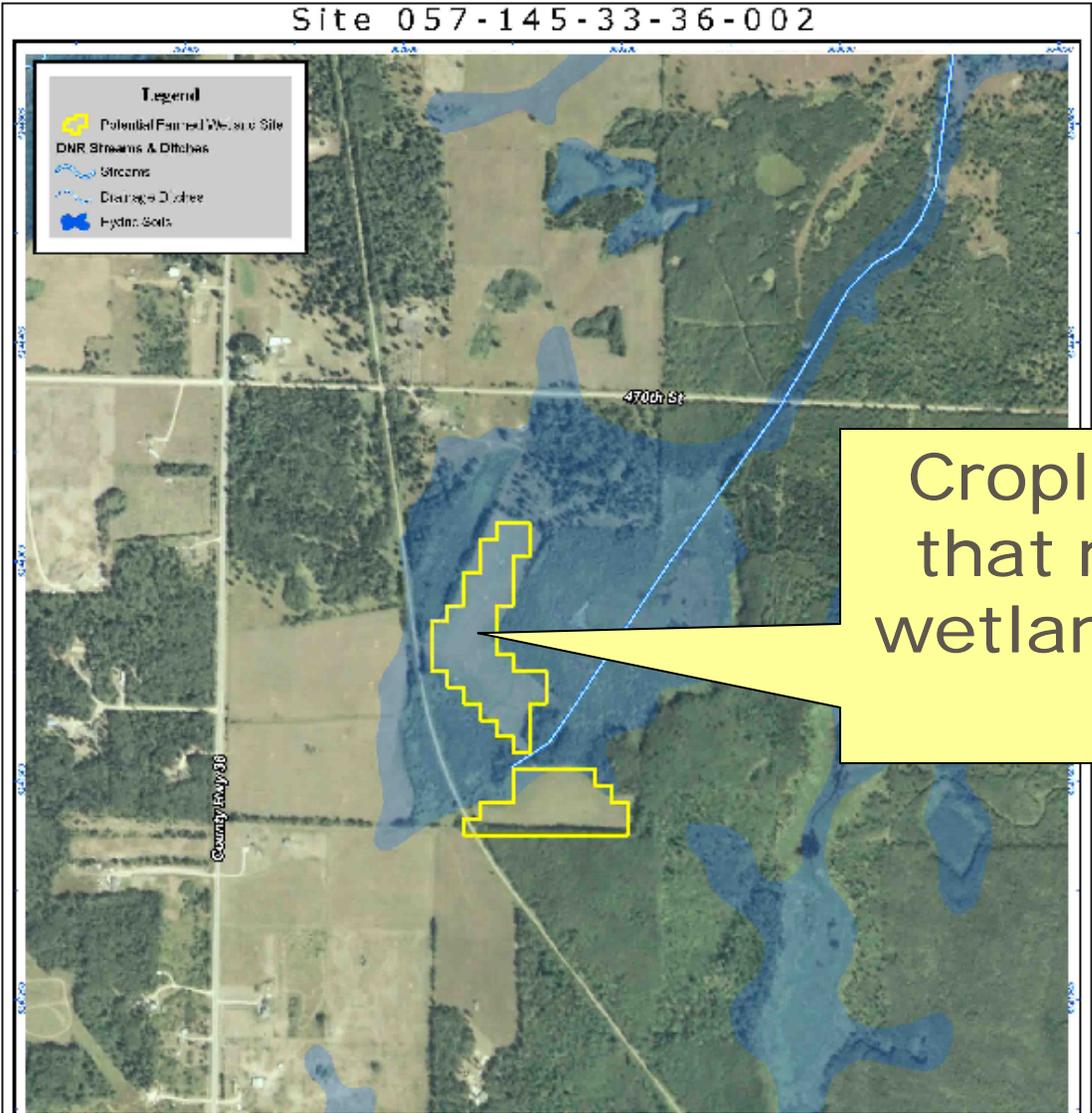
<input type="checkbox"/> 0-10	<input type="checkbox"/> 10-20	<input type="checkbox"/> 20-40	<input type="checkbox"/> 40-100	<input type="checkbox"/> 100-250	<input type="checkbox"/> 250-500	<input type="checkbox"/> >500
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- SWCDs would be expected to complete data form for each site inspected

- SWCDs would also take at least 4 digital photos of the site (example: ditches, vegetation, landscape, land use)

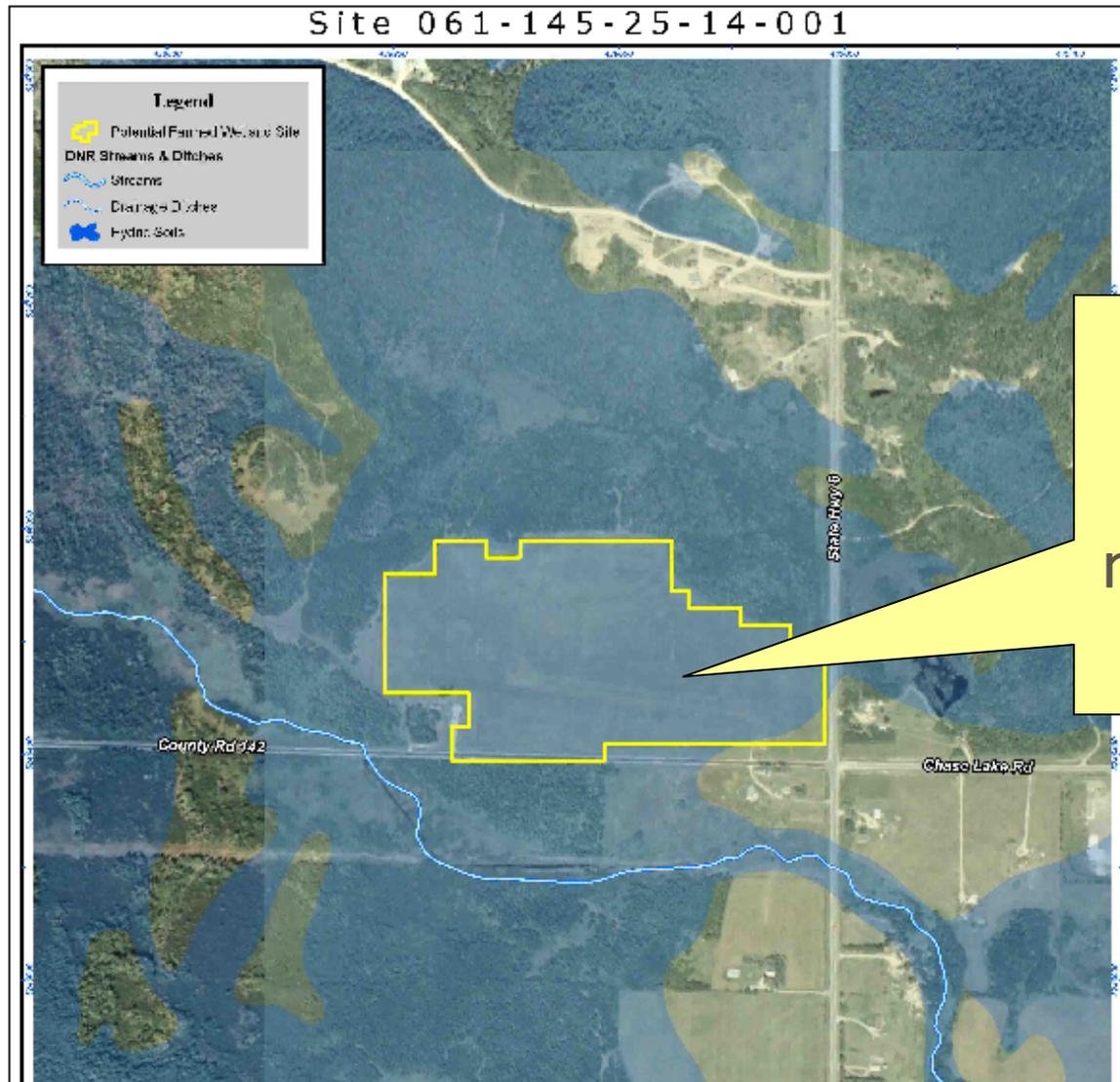
- 60 - 90 minutes per site

Hubbard County Farmed Wetland



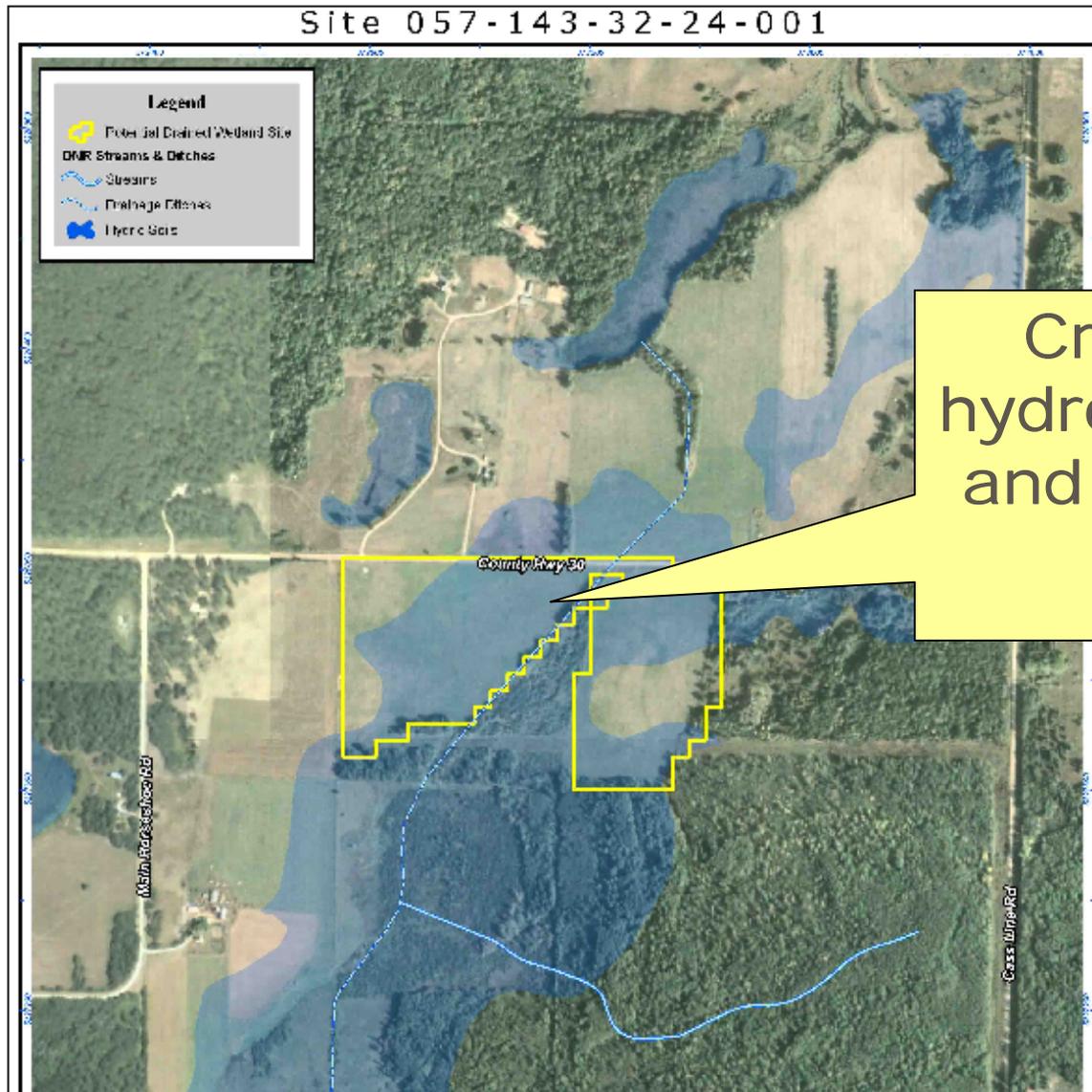
Cropland on hydric soil, that may be eligible for wetland credit for farmed wetlands

Itasca County Farmed Wetland



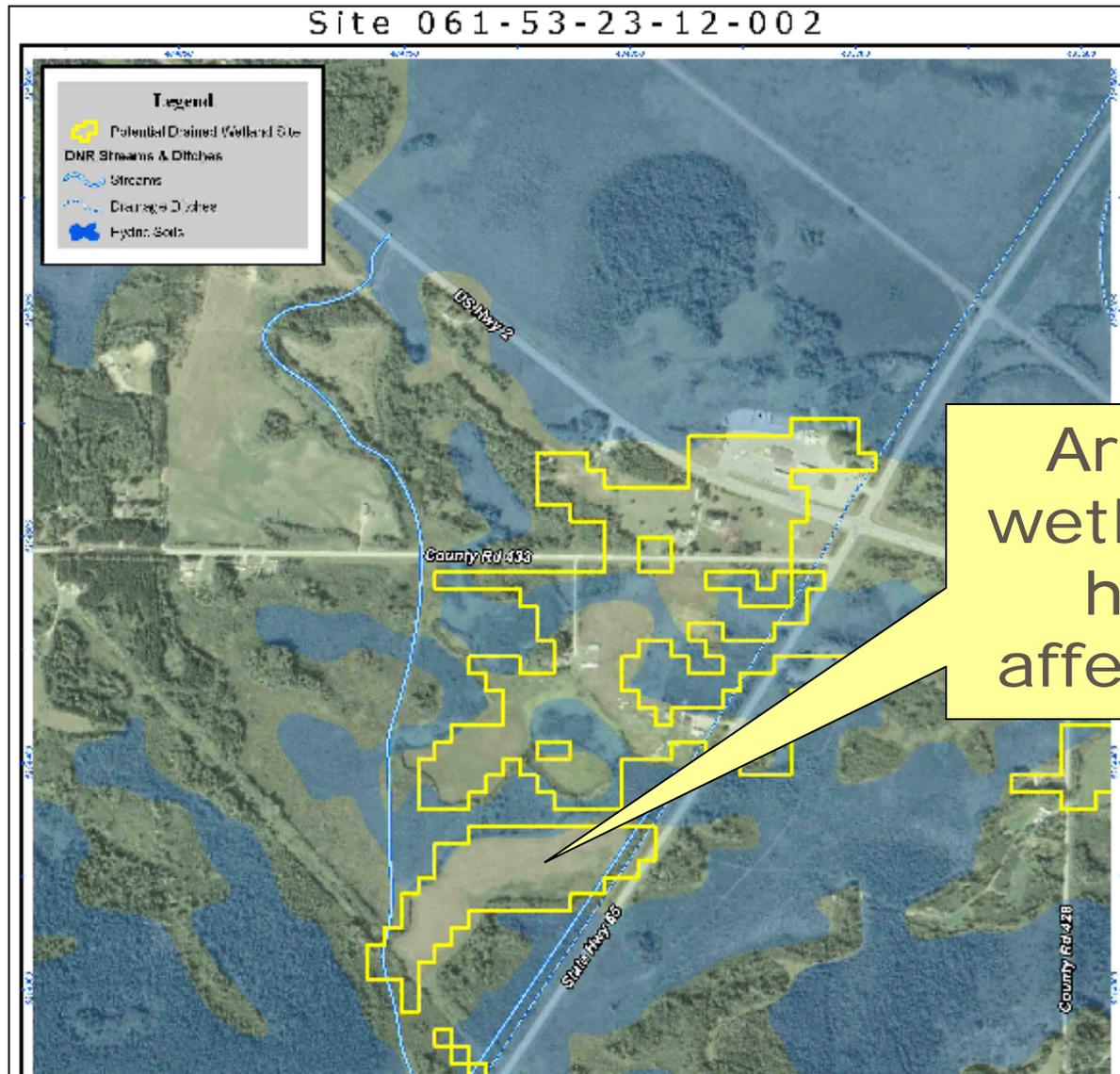
Model predicts wetland, appears to be cropland, may be eligible for wetland credit

Hubbard County Drained Wetland



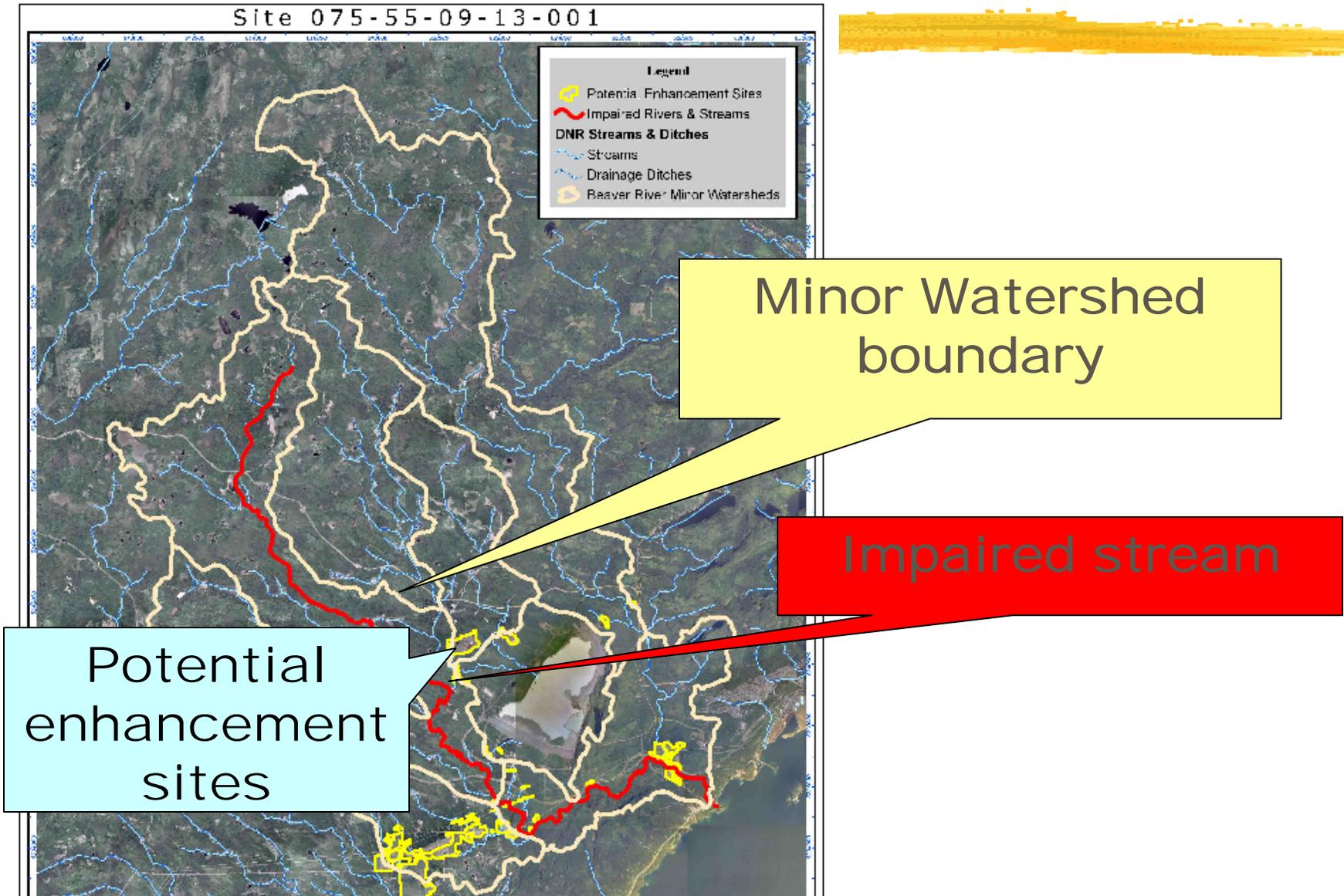
Cropland may have hydrologic modification, and may be eligible for credit

Itasca County Partially Drained Wetland?

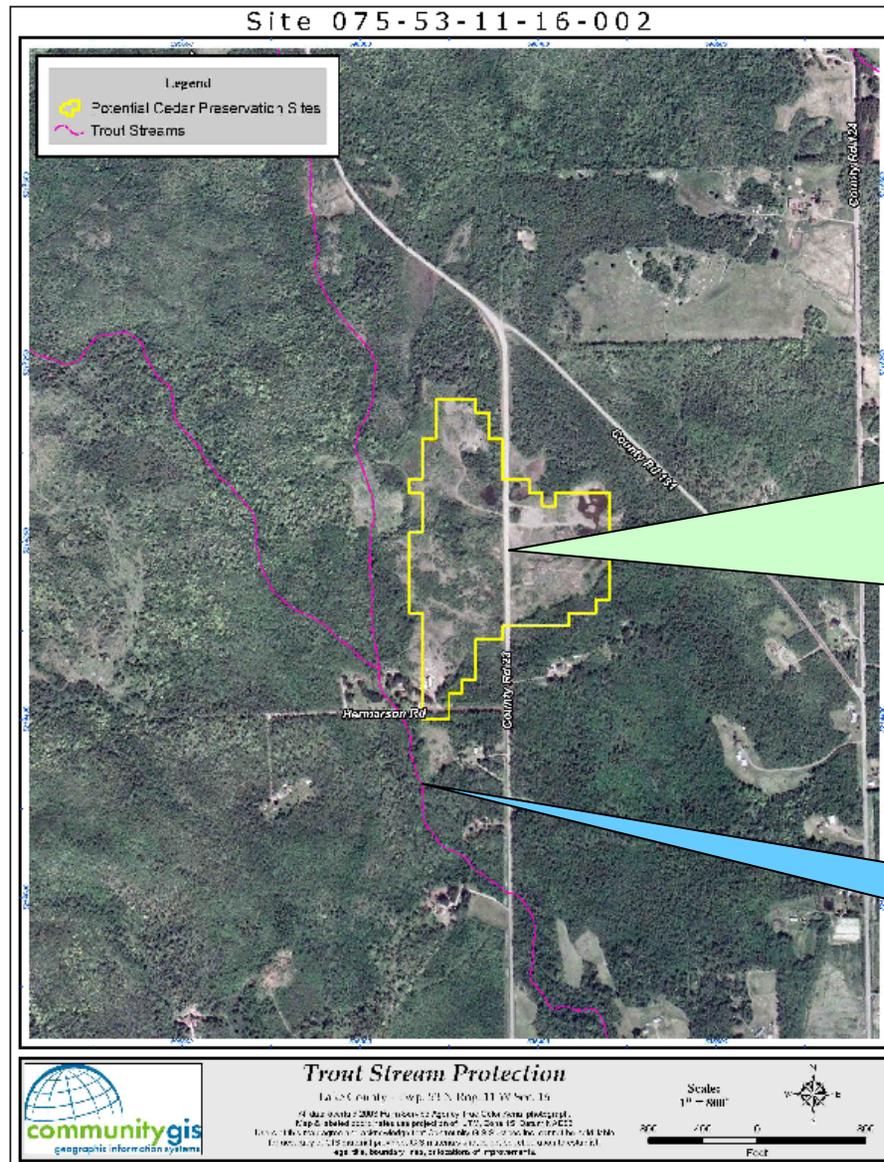


Area likely to be wetland, potentially hydrologically affected by ditches

Lake County Impaired Water Enhancement



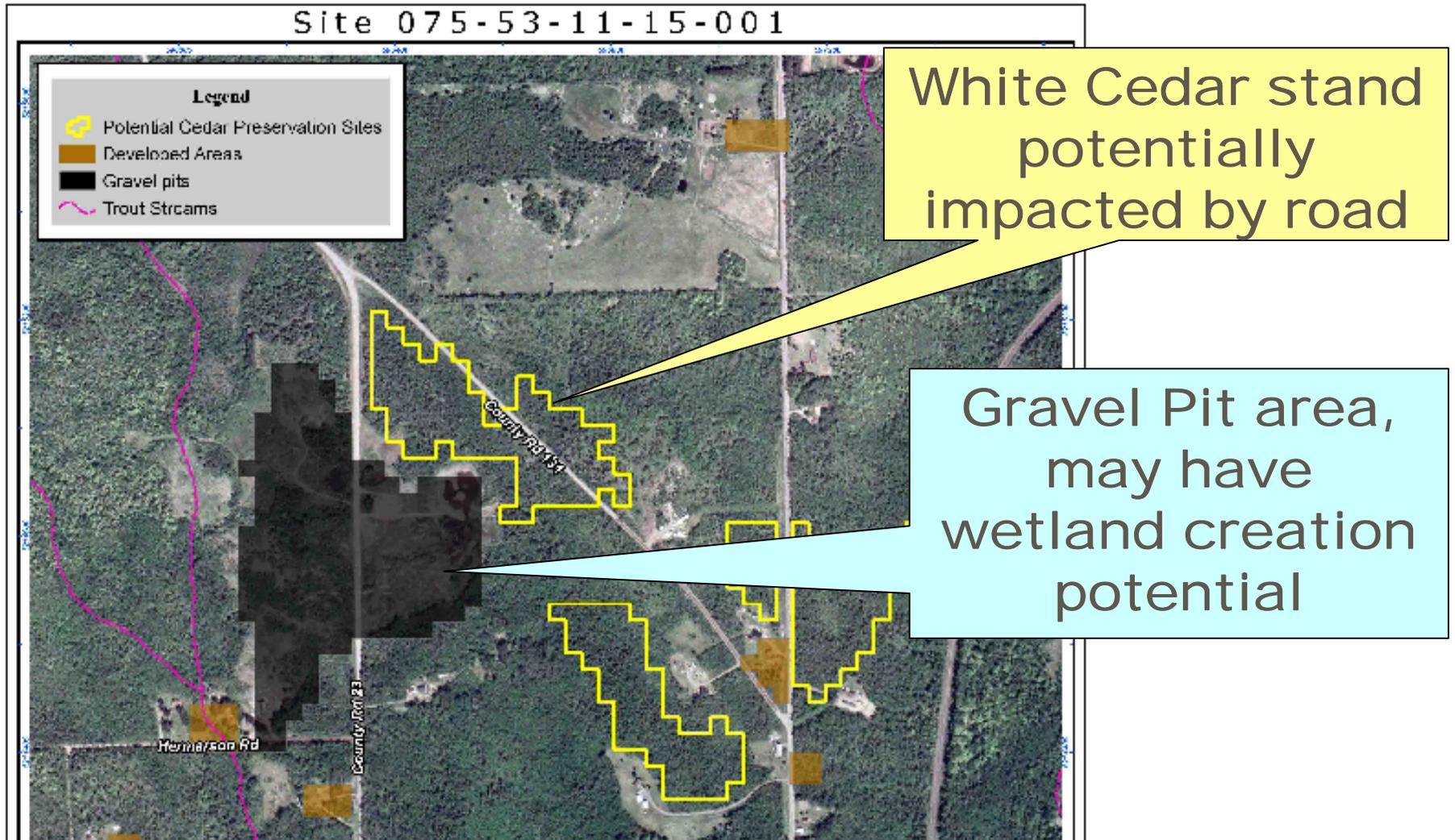
Lake County Trout Stream Protection



- Disturbed site:
- Are there riparian wetlands that could be enhanced?
 - Would restoration of forested vegetation enhance wetland and stream function?

Designated Trout stream

Lake County White Cedar/Gravel Pit



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Questions??



- Do you have the time to help us with the Ground Truthing?
- Do you think that the time estimated is enough for the task?