

Natural Resources and Wetlands Issues

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Waterbody Inventory/Priority Waterbodies List Changes to Accommodate Natural Resources/Wetlands Issues

One recent enhancement to the WI/PWL assessment effort is its expansion to better accommodate a record of impacts to various natural resources beyond water quality. This expansion included the addition of new Use, Pollutant and Source categories that better reflect typical impacts to natural resources that were not captured in the previous water quality focus of the WI/PWL database and worksheet. The outline presented below provides some further clarification regarding the enhancement of the WI/PWL to document *natural resource* impairments and concerns.

While impacts to Natural Resources Habitat/Hydrology have been cited for rivers, lakes and other waterbodies in previous WI/PWL Basin Reports, the Mohawk River Basin Report is the first one to include individual waterbody segment data sheets for specific wetlands. Because the incorporation of these wetland segment assessments is still new and not consistently applied throughout the state or even throughout the Mohawk River Basin, these data sheets are presented here as an appendix to the report. To include these data sheets in the body of the report might misleadingly imply that other wetlands areas (for which data sheets were not completed) were of less value. In addition, compiling the wetlands assessment information in a separate appendix raises the visibility of this effort and will (hopefully) promote the assessment of natural resources as a component of the WI/PWL process.

Wetland Waterbodies

Wetland has been added to the list of surface *Waterbody Types*. Where natural resource impairments occur on riparian/shoreline and upland areas, the most likely impacted (adjacent) waterbody/wetland should be listed.

Waterbody Uses

Natural Resources/Hydrology has been added to the list of *Waterbody Uses*.

Natural Resources/Hydrology was added as a “generic” category to document those activities that result in degradation of natural resources and/or involve various water quantity and flooding/flood plain issues. Though these activities have an impact on the aquatic environment and resources they are not – strictly speaking – water quality issues. Natural Resource/Hydrology issues include impairments to wetland uses such as flood protection, erosion control, nutrient cycling and food chain support, surface and groundwater recharge, aquatic/terrestrial propagation, survival and habitat, and flow alterations that negatively impact native species habitat. This category should be used if an impairment to a more specific water use cannot be documented and is not apparent. The “generic” nature of the category reflects that in many of these cases, the impairment condition (e.g., dredging, draining, excavation and/or filling of wetlands, stream channels, lake/pond; stream widening; stream downcutting; sediment embeddedness other losses of wetlands; habitat fragmentation; loss of riparian vegetation or upland buffer zones) is more appropriately captured as a cause or source, rather than an impaired use.

Causes of Impairment/Pollutants

Three new categories have been added to capture species issues. These are:

Problem Species includes invasive, exotic and/or nuisance species that, due to their invasive nature, alter or upset the natural ecology of the waterbody. Examples include *Phragmites*, purple loosestrife, Eurasian watermilfoil, water chestnut, garlic mustard, zebra mussels, etc.

Species Alteration includes changes in distribution and abundance of native species; in particular, the loss or reduction of threatened and/or endangered species.

Restricted Passage includes physical barriers that limit the migration/movement of fish/aquatic species, thus affecting propagation and survival, and entrainment/impingement of fish within a structure or facility.

Sources of Pollutants

Some changes have been made to the Source(s) of Pollutant(s) list. These are:

Power Generating Facilities includes power plants that withdraw water and discharge it at higher temperature, or otherwise alter the suitability of the water to sustain fish/other populations. Note: In instances where alteration of flow and/or water levels affect fish/other populations, *Hydrologic Modification* may be a more appropriate source.

Habitat Modification has been separated from *Hydrologic Modification*. This category includes loss of riparian vegetation; loss of buffer zones due to encroachment from incompatible land uses; fragmentation of habitat (loss of connectivity); change in distribution, abundance and/or composition of aquatic flora and fauna; debris removal; channel cover; etc.

Hydrologic Modification has been made a separate category as well. This category includes alterations, water withdrawal, presence of dams and other barriers (e.g., weirs, culverts) that affect stream flow and/or water level, that impede movement and dispersal of aquatic life, or that result in changes to the stream channel (stream widening, stream downcutting, lateral cutting, instream sediment embeddedness).

Other sources of natural resource impairment can be captured in the existing source categories.

Adjacent/Surrounding Land Use Runoff that results in an impairment should be listed according to the specific land use that is of concern. The source list includes agriculture, silviculture, urban runoff, and others.

Stormwater Runoff sources should be listed as either *Storm Sewers* if the stormwater is discharged from pipes, or *Urban Runoff* if it enters the waterbody overland.

Waterbody Problem Description

In spite of the efforts outlined here to expand the WI/PWL to incorporate natural resources and wetland impairment information into the water quality database, it is likely that some natural resources/wetlands information will not easily fit into the water quality database structure. Because of this, it is worth stressing that the *Waterbody Problem Description* section of the worksheet is the best place to capture information that does not fit elsewhere on the form.

Vischer Ferry Nature Preserve (1200-0001)

Impaired Seg

Waterbody Location Information

Revised: 10/11/2002

Water Index No: H-240 (portion 4) - wetland **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/390 **Str Class:** SeeBlw Mohawk River
Waterbody Type: Wetland **Reg/County:** 5/Saratoga Co. (46)
Waterbody Size: 100.0 Acres **Quad Map:** NISKAYUNA (J-25-3)
Seg Description: wetlands north of Mohawk River in Town of Half Moon

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
RECREATION	Impaired	Known
HABITAT/HYDROLOGY	Impaired	Known

Type of Pollutant(s)

Known: ALGAL/WEED GROWTH, SILT/SEDIMENT, PROBLEM SPECIES
Suspected: Water Level/Flow
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: UNKNOWN SOURCE (various NPS)

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: ext/WQCC **Resolution Potential:** Medium
TMDL/303d Status: (TMDL Not Required (No Impairment))

Further Details

Natural resources and recreational (swimming, boating, fishing) uses of the nature preserve are limited by silt/sedimentation and excessive aquatic weed/plant growth. These conditions restrict boat (canoe) traffic in the preserve. Various nonpoint sources throughout the basin are the possible sources of silt/sediment loads.

Beaver dams restrict the flow of water to portions of the preserve, limiting fish and bird populations. Water chestnut and other weeds restrict or prevent canoeing at the designated town canoe launch. Sediment deposition has reduced access to the barge canal and river and contributes to weed growth. The entrance to Wagars Pond (primary inlet) is impassable. Excessive nutrient loads and eutrophic conditions are suspected. Golf course and residential lawn, septic runoff are possible sources. (Town of Clifton Park and Saratoga County WQCC, May 2002)

Mohawk River (Frankfort/Ilion) Wetlands (1200-0004) Impaired Seg

Waterbody Location Information

Revised: 03/26/2003

Water Index No: H-240 (portion 11) - wetland **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/070 **Str Class:** Mohawk River
Waterbody Type: Wetland **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 220.0 Acres **Quad Map:** HERKIMER (I-21-4)
Seg Description: wetlands adjacent to Mohawk River in Frankfort/Ilion

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
HABITAT/HYDROLOGY	Impaired	Known

Type of Pollutant(s)

Known: OTHER POLLUTANTS (encroach/fragment/filling)
Suspected: Water Level/Flow
Possible: Oil and Grease, Salts, Silt/Sediment

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION, Hydro Modification
Suspected: Roadbank Erosion, Urban Runoff
Possible: Agriculture

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: (TMDL Not Required (No Impairment))

Further Details

Natural resources habitat and hydrology are considered impaired by development along this reach of the Mohawk River. Wetland encroachment and fragmentation have resulted in significant habitat loss and modification. The impact of various urban nonpoint runoff sources, including silt, road salt and oil sheens, are also a concern.

These wetlands are located along a heavily developed strip and roadway in Herkimer County. Between 1988 and 1993 construction of a two lane highway to replace a portion of Route 5S resulted in fragmentation of NYS regulated wetlands (IN-5, IN-7). Future additional modification to the roadway to expand the two lane portion into a four-lane expressway is also under discussion (NY State Route 5S Corridor Study, Draft, February 2002). If approved, this proposal will have significant impacts on the wetlands. (DEC/FWMR, Region 6/Habitat, April 2002)

Another New York State Regulated Wetland (IN-9) is bounded on the north by the Mohawk River and to the south by Old Route 5S/West Main Street. Residential lots along West Main Street are small and backed up right onto the wetland. Since 1970, considerable filling of the wetlands has been documented. Some of these activities have been approved (at least permits for filling have been issued) due to safety considerations; in some cases filling provides the only available off-street parking for residents. However, there have been several Article 24 violations for filling the wetland or adjacent

areas in this time. Filling (both permitted and illegal) can result in displacement of water onto adjacent properties. The issue has been elevated politically at times due to the safety concerns and the fact that in some cases the Village of Frankfort was providing the fill material. The area is also a Flood Hazard Area, with portions of the wetland in the floodway and floodplain. Illegal filling has also been documented in IN-6 and IN-7. (DEC/FWMR, Region 6/Habitat, April 2002)

This segment includes designated wetland areas IN-5, IN-6, IN-7, IN-9.

Mohawk River (Utica) Wetlands (1200-0005)

Impaired Seg

Waterbody Location Information

Revised: 03/26/2003

Water Index No: H-240 (portion 12) - wetland **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/060 **Str Class:** Mohawk River
Waterbody Type: Wetland **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 458.0 Acres **Quad Map:** UTICA EAST (I-20-4)
Seg Description: wetlands adjacent to Mohawk River/Barge Canal in Utica

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
HABITAT/HYDROLOGY	Impaired	Known

Type of Pollutant(s)

Known: AESTHETICS (trash/debris), OTHER POLLUTANTS (encroachment), Oil and Grease, Problem Species (purple loosestrife)
Suspected: Salts
Possible: Metals, Silt/Sediment

Source(s) of Pollutant(s)

Known: LANDFILL/LAND DISP., Habitat Modification
Suspected: URBAN RUNOFF, Roadbank Erosion
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))	
Verification Status: 4 (Source Identified, Strategy Needed)	
Lead Agency/Office: DEC/FWMR	Resolution Potential: Medium
TMDL/303d Status: (TMDL Not Required (No Impairment))	

Further Details

Natural resource uses and habitat are considered impaired by urban development pressures and human impacts. Wetland encroachment, loss of upland buffer areas and a variety of urban nonpoint runoff sources contribute to the impacts on the wetland.

These wetlands are located in a highly urbanized area adjacent to major transportation routes (NYS Thruway, State Routes 5/8/12). Known or suspected pollutants include silt/sediment, oil and grease, and road salt. High water events also cause materials and debris (tires, engine oil, household trash) from three auto junkyards to be deposited into the wetlands. In 2001, DEC Division of Spill initiated a clean-up of deposited waste oil in the wetland.

Some of these wetlands (UE-2, UE-3, UE-9) make up a large portion of the Utica Marsh State Wildlife Management Area. This 240 acre urban WMA is dominated by freshwater wetland and adjacent upland within the Mohawk River floodplain. Recreational activities in this high use WMA include hiking/walking, birding and trapping. Many area schools use the marsh for field trips and nature walks. Urban debris diminishes the aesthetics of the resource. (DEC/FWMR, Region 6/Habitat, April 2002)

Purple loosestrife and common reed have been documented as problem species in these wetlands. Insect control of the purple loosestrife has been implemented in the WMA. The least bittern, which is threatened in New York State, has been documented in the WMA. (DEC/FWMR, Region 6/Habitat, April 2002)

This segment includes designated wetland areas UE-1, UE-2, UE-3, UE-4, UE-5, UE-7, UE-9, UW-2, UW-3.

Delta Reservoir Wetlands (1200-0002)

Need Verific

Waterbody Location Information

Revised: 03/26/2003

Water Index No: H-240 (portion 16)/P1059 - wetland **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/010 **Str Class:** Mohawk River
Waterbody Type: Wetland **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 578.0 Acres **Quad Map:** WESTERVILLE (H-19-4)
Seg Description: wetlands are adjacent to Delta Reservoir

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrology	Stressed	Possible

Type of Pollutant(s)

Known: ---
Suspected: WATER LEVEL/FLOW
Possible: Nutrients, Restricted Passage, Silt/Sediment

Source(s) of Pollutant(s)

Known: ---
Suspected: HABITAT MODIFICATION, HYDRO MODIFICATION
Possible: Agriculture, Streambank Erosion

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 1 (Waterbody Nominated, Problem Not Verified)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: n/a ()

Further Details

Natural resource habitat and hydrology is thought to be stressed by hydrologic and habitat modification. Fluctuating water levels in Delta Lake alter hydrology and wetland habitat. While these conditions are known to occur, more information is necessary to verify the extent of specific impacts on the wetland.

Delta Lake is drawn down by NYS DOT to augment flow in the NYS Barge Canal. These conflicting uses of the reservoir will be difficult to resolve. Other possible and/or potential sources of impacts to the wetlands include agricultural practices in the watershed and future/continuing development pressures in the area north of Rome. (DEC/FWMR, Region 6/Habitat, April 2002)

This segment includes designated wetland areas WE-8, WE-9, WE-10, WE-11.

Mud Creek Wetlands (1200-0003)

Minor Impacts

Waterbody Location Information

Revised: 10/11/2002

Water Index No: H-240-219-4 - wetland **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/050 **Str Class:** Mohawk River
Waterbody Type: Wetland **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 99.0 Acres **Quad Map:** UTICA WEST (I-19-3)
Seg Description: wetlands adjacent to Mud Creek in New Hartford

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted Habitat/Hydrology	Severity Stressed	Problem Documentation Known
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Type of Pollutant(s)
Known: OTHER POLLUTANTS (encroach/fragment/filling)
Suspected: Water Level/Flow, Restricted Passage
Possible: Silt/Sediment

Source(s) of Pollutant(s)
Known: HABITAT MODIFICATION
Suspected: Hydro Modification, Urban Runoff
Possible: Streambank Erosion

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))	
Verification Status: 4 (Source Identified, Strategy Needed)	
Lead Agency/Office: DEC/FWMR	Resolution Potential: Medium
TMDL/303d Status: (TMDL Not Required (No Impairment))	

Further Details

Natural resources habitat and hydrology are affected by development along Mud Creek. Wetland encroachment and fragmentation have resulted in significant habitat loss and modification. Impacts to/loss of upland buffer areas are also a concern. The impact of various urban nonpoint runoff sources, including silt, road salt and oil sheens, may also be a concern.

These wetlands are adjacent to a heavily developed strip along Mud Creek. The filling of two large wetland areas were allowed (permitted) in order to accommodate construction of large commercial development projects: Sangertown Square (UW-11) and Consumer Square (UW-9). Wetland mitigation has been done to compensate for these losses, but the level of success these created wetlands have had in replacing the lost habitat has not yet been fully assessed. Minor illegal (unpermitted) filling activities has resulted in additional wetland loss in UW-9. (DEC/FWMR, Region 6/Habitat, April 2002)

This segment includes designated wetland areas UW-9, UW-11, UW-12.

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