

Wetland Impact Evaluation

1. Existing Wetland Characteristics

Wetlands within the project interchanges vary from large wetland complexes associated with streams to small isolated wetlands. In 1985, the U.S. EPA and the Army Corps of Engineers completed the Advanced Identification of Disposal Sites in southeastern Wisconsin, and they determined that the disposal of fill in primary environmental corridors (delineated by SEWRPC) would likely not comply with the Clean Water Act 404 (b)(1). Advanced identification was undertaken at the request of SEWRPC and the DNR to support and further the objectives of the Areawide Water Quality Management Plan. One objective of the Areawide Water Quality Management Plan is to preserve the resources in the primary environmental corridors by redirecting development activities. The primary environmental corridor boundaries within project interchanges are shown on Figures 7 through 18.

Information about the wetlands that would be affected by the recommended interchange improvements are summarized in the following table. Information about the plant species at the potentially affected wetlands is found in Appendix C. Additional information about project-area wetlands is available in *Wetland Functional Assessment and Project Impact Evaluation I-94 Interchange Study*, CH2M HILL, February 1996.

APPLICABLE INTERCHANGE	WETLAND LOCATION ¹	COMMENTS
CTH C (Kenosha County -Figure 7)	NW Quadrant	This wetland, which is located in a primary environmental corridor, is part of the Des Plaines River floodplain-wetland complex. It consists of shallow marsh, southern sedge meadow, fresh (wet) meadow, low prairie, shrub-carr (willow thicket), and second growth, southern wet to wet-mesic lowland hardwoods. According to SEWRPC, disturbances to the wetland in this quadrant include water level changes due to ditching and draining and past dumping and filling. The Rapid Assessment Methodology (RAM) ranked the fishery habitat, shoreline protection, and groundwater functions of this wetland as low, while floral diversity, wildlife habitat, flood attenuation water quality protection, and aesthetics/recreation were rated as medium.
	SW Quadrant	This wetland, which is located in an isolated natural resource area, consists of fresh (wet) meadow and second growth, southern wet-mesic lowland hardwoods. According to SEWRPC, disturbances to this wetland include water level changes due to ditching and draining, past dumping and filling, siltation and sedimentation caused by farmland runoff, and past attempts at plowing in dry years (southern portion of wetland is adjacent to existing frontage road). The RAM ranked floral diversity, fishery habitat, flood attenuation, and groundwater functions as low, while wildlife habitat, water quality protection, and aesthetics/recreation were rated as medium.
	SE Quadrant	This wetland, which is located at the north edge of a primary environmental corridor, is part of a wetland complex of an unnamed

APPLICABLE INTERCHANGE	WETLAND LOCATION ¹	COMMENTS
STH 158 (Kenosha Co.-Figure 9)	SW Quadrant	This wetland, which is adjacent to the west frontage road, consists of disturbed fresh (wet) meadow, shrub-carr (willow thicket), and second growth, southern wet to wet-mesic lowland hardwoods. According to SEWRPC, disturbances to this wetland include siltation and sedimentation from farmland runoff, water level changes caused by past ditching and draining, and filling and dumping along the wetland edge. The primary functions of this wetland, which is located along a drainage ditch between a farm field and the existing frontage road, are providing wildlife habitat and flood/stormwater attenuation (sediment trapping).
	SE Quadrant	The wetland in the southeast quadrant is located in a primary environmental corridor, and it is part of the Kilbourn Road Ditch flood plain-wetland complex. It consists of second growth, Southern wet to wet-mesic lowland hardwoods with planted conifers along a portion of the wetland edge. According to SEWRPC, disturbances to this wetland include siltation and sedimentation due to stormwater runoff. The RAM rated fishery habitat and groundwater functions as low, while flora diversity, wildlife habitat, shoreline protection, and aesthetic/recreation functions were rated as medium. Flood/stormwater attenuation and water quality protection were rated as high.
	NE Quadrant	Wetland W-3 in the northeast quadrant is also located in a primary environmental corridor, and it is part of the Kilbourn Road Ditch flood plain-wetland complex. The wetlands in the northeast and southeast quadrants are nearly continuous along Kilbourn Ditch, being separated by STH 158. Wetlands in the northeast quadrant have fewer overstory trees than wetlands in the southeast quadrant and are more of a palustrine scrub/shrub community, with some areas of palustrine forested and emergent cover. The SEWRPC classifies this wetland as fresh (wet) meadow with scattered, second growth, Southern wet to wet-mesic lowland hardwoods. According to SEWRPC, disturbances to this wetland include siltation and sedimentation due to stormwater runoff and dumping and filling along the wetland edge. The RAM rated the fishery habitat and groundwater functions as low, while floral diversity, wildlife habitat, water quality protection, shoreline protection, and aesthetics/recreation were rated as medium. The flood/stormwater attenuation function was rated as high. No federal-or state-designated rare, threatened, or endangered species were located at the STH 158 wetlands.
STH 142 (Kenosha Co. -Figure 10)	SE Quadrant	This wetland, which is located along a drainage ditch south of the Mobil station on STH 142 and east of the existing frontage road, consists of shallow marsh, disturbed fresh (wet) meadow, and second growth, southern wet to wet-mesic lowland hardwoods. According to SEWRPC, disturbances to this wetland include siltation and sedimentation from farmland runoff and dumping and filling along the wetland edge. The primary functions of this wetland are to provide wildlife habitat and flood/stormwater attenuation (sediment trapping).
	NE Quadrant	This wetland is located along a drainage ditch in the northeast quadrant. The SEWRPC classifies this wetland as disturbed fresh (wet) meadow with small stands of shallow marsh. According to

APPLICABLE INTERCHANGE	WETLAND LOCATION ¹	COMMENTS
	<p>(cont'd)</p> <p>SW Quadrant</p> <p>NE Quadrant</p>	<p>wildlife habitat. Another function of the wetland associated with the tributary to the Kilbourn Road Ditch is flood/stormwater attenuation.</p> <p>This small, isolated wetland, which is located adjacent to CTH KR, consists of disturbed fresh (wet) meadow. According to SEWRPC, disturbances to the plant community include past agricultural land management activities. The primary function of this isolated wetland is stormwater detention.</p> <p>This wetland is located in an isolated natural resource area, along a tributary to the Kilbourn Road Ditch wetland complex. It consists of fresh (wet) meadow, shrub-carr, and second growth, southern wet to wet-mesic lowland hardwoods with small areas of low prairie along the edge. According to SEWRPC, disturbances to this wetland include siltation and sedimentation from farmland runoff, water level changes due to stream channel realignment, ditching and draining, and selective tree cutting. For purposes of completing the RAM, the wetland was divided into two segments, the palustrine emergent/open water community in the northeast corner of site, and the emergent and the forest riparian zone in the west and south portion of the site. The RAM for the emergent/open water community rated groundwater as low, while floral diversity, wildlife habitat, fishery habitat, and aesthetics/recreation were rated as medium. The flood/stormwater attenuation and water quality protection functions were rated high. The RAM for the emergent and the forest riparian zone in the west and south portion of the site rated fishery habitat, groundwater, and aesthetics/recreation as low, while floral diversity and wildlife habitat were rated as medium. The flood/stormwater attenuation and water quality protection functions were rated high.</p> <p>No federal-or state-designated rare, threatened, or endangered species were located at the CTH KR wetlands.</p>
STH 20 (Racine Co.-Figure 14)	NE Quadrant	<p>The wetland in this quadrant, which is surrounded by cropped fields, is a palustrine emergent/wet meadow community dominated by reed canary grass. A small drainage ditch flows along the north edge of the wetland. The site appears to support a limited diversity of herbaceous species with little tree or shrub cover. The primary functions of this wetland are providing wildlife habitat and flood/stormwater attenuation. The wetland also traps sediment and nutrients from the farmland that runoff into the drainage ditch.</p> <p>No federal-or state-designated rare, threatened, or endangered species were located at the STH 20 wetlands.</p>

APPLICABLE INTERCHANGE	WETLAND LOCATION ¹	COMMENTS
CTH K (Racine Co.-Figure 15)	NW Quadrant	<p>The DNR classifies this wetland as E2H – emergent/wet meadow, narrow-leaved persistent, standing water, palustrine. The SEWRPC classifies this wetland as disturbed fresh (wet) meadow and shrub-carr (willow thicket). According to SEWRPC, disturbances to the wetland include siltation and sedimentation from runoff, water level changes due to ditching and draining, and past filling and dumping along the wetland edge. The RAM for this site rated floral diversity, wildlife habitat, fishery habitat, and groundwater functions as low, while flood/stormwater attenuation, water quality protection, and aesthetics were rated as medium.</p>
	NE Quadrant	<p>There are two small, isolated wetlands in the northeast quadrant north of the Pilot Truck Stop. The wetland closest to Pilot is a small emergent wetland located in a narrow depression area adjacent to the Pilot parking lot and agricultural fields. The SEWRPC classifies this wetland as shallow marsh and disturbed fresh (wet) meadow with scattered, second growth, Southern wet to wet-mesic lowland hardwoods. According to SEWRPC, disturbances to the wetland include siltation and sedimentation from agricultural runoff and runoff from the Pilot parking lot, and dumping and filling along the wetland edge. At the time of the site visit, considerable debris and litter was present in the wetland. The primary function of this wetland is providing stormwater detention and to a lesser extent wildlife habitat.</p> <p>The second wetland is located north of the other wetland and is surrounded by farmland. The SEWRPC classifies this wetland as a shallow marsh with disturbed fresh (wet) meadow along the edge. According to SEWRPC, disturbances to the wetland include siltation and sedimentation from agricultural runoff, past attempts at plowing in dry years, and dumping and filling along the wetland edge. The primary function of this wetland is providing wildlife habitat.</p> <p>No federal-or state-designated rare, threatened, or endangered species were located at the CTH K wetlands.</p>
CTH G (Racine Co. -Figure 16)	NW Quadrant	<p>This wetland, located along a drainage adjacent to the frontage road, consists of a palustrine emergent community (PEM) with intermixed areas of scrub-shrub (PSS). The SEWRPC classifies this wetland as disturbed fresh (wet) meadow. According to SEWRPC, disturbances to this wetland include siltation and sedimentation due to stormwater runoff from adjacent farmland and water level changes due to ditching and draining. The primary functions of this wetland are providing wildlife habitat and flood/stormwater attenuation. This wetland also filters sediment and nutrients from agricultural runoff draining to the ditch.</p>
	SE Quadrant	<p>Wetlands in the southeast quadrant are generally located south and southeast of the 4-G Greenhouse and include a depression area dominated by cattail and a narrow area of PEM wetland along a small creek. The wetlands are surrounded by agricultural fields. The portion of the wetland along the drainage ditch southeast of the greenhouse is part of a SEWRPC-designated isolated natural resource area. The SEWRPC classifies these wetlands as shallow marsh, disturbed fresh (wet) meadow, and second growth, Southern wet to wet-mesic lowland hardwoods. According to SEWRPC,</p>

APPLICABLE INTERCHANGE	WETLAND LOCATION ¹	COMMENTS
	NE Quadrant cont'd	<p>nutrients from adjacent agricultural land that runoff into the drainage that eventually flows to the west side of I-94. A state special concern plant was observed in the southwest quadrant outside the project's area of effect.</p> <p>No other federal- or state-designated rare, threatened, or endangered species were located at the 7 Mile Road wetlands.</p>

Note: 1. The wetland locations are shown on the aerial photo maps illustrating the recommended improvement alternative at each interchange (Figure 7 through Figure 18).

2. The wetland information in this table was obtained by CH2M HILL during field reviews in October 1995 and by SEWRPC during wetland delineation activities in spring 1996.

2. Wetland Impacts

The proposed project would require filling 6.5 hectares (16.1 acres) of wetland from 20 wetland areas as summarized in the following table. There are no wetland impacts at the STH 11, CTH K, and 27th Street interchanges.

Wetland Impacts

INTERCHANGE	WETLAND LOCATION and SIZE	WETLAND AFFECTED WITHIN PRIMARY ENVIRONMENTAL CORRIDOR ¹	WETLAND AFFECTED OUTSIDE PRIMARY ENVIRONMENTAL CORRIDOR
CTH C (Kenosha Co.)	NW Quadrant 12.8 ha (31.5 ac)	0.8 ha (1.9 acres)	none
	SE Quadrant 25.1 ha (62.1 ac)	1.2 ha (2.8 acres)	none
	NE Quadrant 1.5 ha (3.6 ac)	none	0.3 ha (0.7 acres)
Interchange Subtotal	69.3 ha (171.1ac)	1.9 ha (4.7 acres)	0.3 ha (0.7 acres)
STH 50 (Kenosha Co.)	SW Quadrant 0.3 ha (0.8 ac)	none	0.1 ha (0.2 acres)
	SE Quadrant 38.5 ha (95.2 ac)	1.4 ha (3.4 acres)	
Interchange Subtotal	38.8 ha (96 ac)	1.4 ha (3.4 acres)	0.1 ha (0.2 acres)
STH 158 (Kenosha Co.)	SW Quadrant 0.5 ha (1.3 ac)	none	0.1 ha (0.3 acres)
	Interchange Subtotal	0.5 ha (1.3 ac)	0.1 ha (0.3 acres)

INTERCHANGE	WETLAND LOCATION and SIZE	WETLAND AFFECTED WITHIN PRIMARY ENVIRONMENTAL CORRIDOR ¹	WETLAND AFFECTED OUTSIDE PRIMARY ENVIRONMENTAL CORRIDOR
STH 142 (Kenosha Co.)	SE Quadrant 1.2 ha (2.9 ac)	none	0.1 ha (0.3 acres)
	NE Quadrant	none	0.04 ha (0.1 acres)
Interchange Subtotal	1.2 ha (2.9 ac)	none	0.2 ha (0.4 acres)
CTH E (Kenosha Co.)	NE Quadrant 3.5 ha (8.6 ac)	none	0.3 ha (0.8 acres)
Interchange Subtotal	3.5 ha (8.6 ac)	none	0.3 ha (0.8 acres)
CTH KR (Racine-Kenosha Co. line)	NW Quadrant 1.2 ha (2.9 ac)	none	0.3 ha (0.6 acres)
	SW Quadrant 0.2 ha (0.4 ac)	none	0.1 ha (0.3 acres)
	NE Quadrant 2.7 ha (6.6 ac)	none	0.2 ha (0.5 acres)
Interchange Subtotal	4.1 ha (9.9 ac)	none	0.6 ha (1.3 acres)
CTH K (Racine Co.)	NE Quadrant 0.3 ha (0.9 ac)	none	none
Interchange Subtotal	0.3 ha (0.9 ac)	none	none
STH 20 (Racine Co.)	NE Quadrant 3.9 ha (9.6 acre)	none	0.1 ha (0.3 acres)
Interchange Subtotal	3.9 ha (9.6 acre)	none	0.1 ha (0.3 acres)
CTH G (Racine Co.)	NW Quadrant 3.4 ha (8.5 ac)	none	0.3 ha (0.6 acres)
	SE Quadrant 7.4 ha (18.2 ac)	none	0.3 ha (0.6 acres)
	NE Quadrant 1.7 ha (4.2 ac)	none	0.3 ha (0.8 acres)
Interchange Subtotal	12.5 ha (30.9 ac)	none	0.8 ha (2.1 acres)

INTERCHANGE	WETLAND LOCATION and SIZE	WETLAND AFFECTED WITHIN PRIMARY ENVIRONMENTAL CORRIDOR ¹	WETLAND AFFECTED OUTSIDE PRIMARY ENVIRONMENTAL CORRIDOR
7 Mile Rd. (Racine Co.)	SW Quadrant 1.1 ha (2.8 ac)	none	0.6 ha (1.4 acres)
	NW Quadrant	none	0.1 ha (0.3 acres)
	NE Quadrant 0.5 ha (1.3 ac)	none	0.1 ha (0.3 acres)
Interchange Subtotal	1.6 ha (4.1 ac)	none	0.8 ha (1.9 acres)
PROJECT TOTAL	135.7 ha (335.2 ac)	3.3 ha (8.2 acres)	3.2 ha (7.9 acres)

Note:1. Information about the location of primary environmental corridors was provided by SEWRPC. Wetland acreage estimates for large wetland complexes such as those found at CTH C and STH 50 include only the portion of the wetland within the general interchange area.

3. FHWA Wetland Policy

The proposed project does not meet the Federal Highway Administration's (FHWA) Statewide Wetland Finding for implementing Presidential Executive Order 11990, *Protection of Wetlands*. Therefore, an individual wetland finding is required. FHWA approval of the project's final environmental document will serve as the individual wetland finding based on the following provisions:

A total of 6.5 hectares (16.1 acres) of unavoidable wetland loss will occur (see breakdown under Wetland Impacts, page 54.)

Due to the nature of the interchange improvements (separating ramps and frontage roads), the scattered location of wetlands, and their proximity to the interchanges, it is not possible to completely avoid wetland impacts.

The alignments for the new frontage roads and ramps were developed and refined to minimize wetland impacts to the extent practicable, while meeting acceptable engineering design criteria (ramp and frontage road separation distance, frontage road curvature, vertical profile, sight distance, and design speed).

During the project's design engineering phase, further measures to minimize unavoidable wetland impacts will be incorporated into the project plans. These measures will include: keeping roadway sideslopes as steep as practicable; use of equalizer pipes, permeable fill, and other techniques to maintain wetland hydrology; use of excavated wetland soils on roadway sideslopes where practicable; and disposal of unsuitable material outside wetland areas. In addition, erosion control and storm water management measures will be used to protect the wetlands. These include: minimizing the amount of land exposed at one time, erosion bales, temporary seeding, silt fence, ditch checks, erosion mats, ditch or slope sodding, seeding and mulching of exposed soils, and detention basins (constructed outside the wetland area).

The proposed project has been coordinated with Wisconsin DNR and the COE through the interagency liaison process. Both agencies were kept informed of wetland impacts during the development and refinement of the alternatives, and both have acknowledged the unavoidable impacts.

Compensation for unavoidable wetland loss will be carried out in accordance with the Cooperative Agreement between WisDOT and Wisconsin DNR on Compensatory Wetland Mitigation. If WisDOT is unable to obtain a site-specific wetland restoration site, the project's wetland impacts will be mitigated at a wetland bank site. Mitigating wetland losses at a bank site would be done in accordance with the Wetland Mitigation Banking Technical Guideline.

4. Section 404 Permit Requirements

The U.S. Army Corps of Engineers has reviewed the recommended interchange improvement alternatives relative to wetland impacts, and has provided a preliminary determination regarding the Section 404 permit status at each location. This information is summarized in the following table. Correspondence from the Corps is included in Appendix B, page B-8.

APPLICABLE INTERCHANGE	SECTION 404 PERMIT STATUS
CTH C (Kenosha County)	Individual permit required
STH 50 (Kenosha County)	Individual permit required
STH 158 (Kenosha County)	Individual permit required
STH 142 (Kenosha County)	Nationwide Permit No. 26 ¹
CTH E (Kenosha County)	Nationwide Permit No. 26
CTH KR (Kenosha/Racine Co. Line)	Nationwide Permit No. 26
CTH K (Racine County)	Nationwide Permit No. 26
CTH G (Racine County)	Nationwide Permit No. 26
7 Mile Road (Racine County)	Nationwide Permit No. 26

Note: 1. Nationwide Permit No. 26 covers discharge of fill material into wetlands located above the headwaters, where affected wetland is less than 4 hectares (10 acres). Verification of nationwide permit applicability is required. The appropriate coordination information will be developed during the design phase for each interchange project. The information in this table was provided by the Corps of Engineers.

5. Wetland Avoidance, Minimization, and Compensation

A. Wetland Avoidance—Due to the linear nature of the proposed interchange improvements, the amount of wetlands throughout the interchange areas, and the proximity of wetlands to the proposed improvements, it is not feasible to avoid all project-area wetlands. It should be noted that at the CTH G and CTH KR interchanges, the project team balanced upland and wetland impacts rather than completely avoiding a wetland. In the northwest quadrant of the CTH KR interchange, the relocated west frontage road minimizes the severance to a largely upland area, but affects the edge of an isolated wetland south of CTH KR and a wetland north of CTH KR. This alignment was selected to avoid bisecting the wooded area and a remnant prairie that SEWRPC noted during their wetland delineation survey. In the northeast quadrant of the CTH G interchange, a wetland is located at the west edge of a relatively mature oak-hickory woods. The relocated east

frontage road affects the east edge of the wetland to minimize impacts to the woods. The SEWRPC noted that the least disturbed portion of the woods was the portion east of the wetland.

B. Minimize the Amount of Wetland Affected— During the alternatives development and refinement phases, the interchange improvements were aligned to minimize wetland impacts. An example of this is the offset intersection on the west side of the 7 Mile Road interchange that avoids wetlands in Kimmel Woods. Input received from the Wisconsin DNR and COE was used to further minimize wetland impacts. During the project's design engineering phase, further measures to minimize unavoidable wetland impacts will be incorporated into the project plans. These measures will include: keeping roadway sideslopes as steep as practicable; use of equalizer pipes, permeable fill, and other techniques to maintain wetland hydrology; use of excavated wetland soils on roadway sideslopes where practicable; and disposal of unsuitable material outside wetland areas. In addition, erosion control and storm water management measures will be used to protect the wetlands. These include: minimizing the amount of land exposed at one time, erosion bales, temporary seeding, silt fence, ditch checks, erosion mats, ditch or slope sodding, seeding and mulching of exposed soils, and detention basins (constructed outside the wetland area).

C. Compensation for Unavoidable Wetland Loss— An extensive search was conducted with WisDOT to locate a potential mitigation site(s). Wetland maps provided by the NRCS were used to locate "prior converted" parcels in the project corridor. The NRCS' soil survey maps for Racine and Kenosha Counties were used to confirm that the prior converted parcels consisted primarily of hydric soils. Due to the large number of prior converted parcels in the project area, parcels were screened out that were not adjacent to surface water (including wetlands) and designated by SEWRPC to be publicly protected (i.e. existing or future park land, environmental corridor). Parcels were further screened using criteria such as size and accessibility. The three possible mitigation sites with the highest potential were identified, all of which are in Kenosha County (Sections 19 and 32 of Pleasant Prairie and Section 14 of Bristol). Many other potential wetland mitigation sites were identified in the corridor. If needed, these sites would be evaluated during the project's engineering design phase.

Because the construction schedule for the interchange improvements is long range, property owner contacts, property acquisition, and site design would occur during the project's design phase. The project's wetland impacts would be mitigated in accordance with the Cooperative Agreement between Wisconsin DNR and WisDOT on Compensatory Wetland Mitigation. If WisDOT is unable to obtain a site-specific wetland restoration site, the project's wetland impacts will be mitigated at a wetland bank site. Mitigating wetland losses at a bank site would be done in accordance with the Wetland Mitigation Banking Technical Guideline.

**CORRECTED WETLAND IMPACT SHEETS
FROM ENVIRONMENTAL ASSESSMENT**

APPLICABLE INTERCHANGE	WETLAND LOCATION 1	COMMENTS
	NE Quadrant cont'd	nutrients from adjacent agricultural land that runoff into the drainage that eventually flows to the west side of I-94. A state special concern plant was observed in the southwest quadrant outside the project's area of effect. No other federal- or state-designated rare, threatened, or endangered species were located at the 7 Mile Road wetlands.

Note: 1. The wetland locations are shown on the aerial photo maps illustrating the recommended improvement alternative at each interchange (Figure 7 through Figure 18).
2. The wetland information in this table was obtained by CH2M HILL during field reviews in October 1995 and by SEWRPC during wetland delineation activities in spring 1996.

2. Wetland Impacts

The proposed project would require filling ~~6.5 hectares (16.1 acres)~~ 7.1 hectares (17.6 acres) of wetland from 20 wetland areas as summarized in the following table. There are no wetland impacts at the STH 11, CTH K, and 27th Street interchanges.

Wetland Impacts

INTERCHANGE	WETLAND LOCATION and SIZE	WETLAND AFFECTED WITHIN PRIMARY ENVIRONMENTAL CORRIDOR 1	WETLAND AFFECTED OUTSIDE PRIMARY ENVIRONMENTAL CORRIDOR
CTH C (Kenosha Co.)	NW Quadrant 12.8 ha (31.5 ac)	0.8 ha (1.9 acres)	none
	SE Quadrant 25.1 ha (62.1 ac)	1.2 ha (2.8 acres)	none
	NE Quadrant 1.5 ha (3.6 ac)	none	0.3 ha (0.7 acres)
	SW Quadrant 3.8 ha (9.5 ac)	none	0.6 ha (1.5 acres)
Interchange Subtotal	60.3 ha (171.1 ac) 43.2 ha (106.7 ac)	1.9 ha (4.7 acres)	0.3 ha (0.7 acres) 0.9 ha (2.2 acres)
STH 50 (Kenosha Co.)	SW Quadrant 0.3 ha (0.8 ac)	none	0.1 ha (0.2 acres)
	SE Quadrant 38.5 ha (95.2 ac)	1.4 ha (3.4 acres)	
Interchange Subtotal	38.8 ha (96 ac)	1.4 ha (3.4 acres)	0.1 ha (0.2 acres)
STH 158 (Kenosha Co.)	SW Quadrant 0.5 ha (1.3 ac)	none	0.1 ha (0.3 acres)
Interchange Subtotal	0.5 ha (1.3 ac)	none	0.1 ha (0.3 acres)

INTERCHANGE	WETLAND LOCATION and SIZE	WETLAND AFFECTED WITHIN PRIMARY ENVIRONMENTAL CORRIDOR ¹	WETLAND AFFECTED OUTSIDE PRIMARY ENVIRONMENTAL CORRIDOR
7 Mile Rd. (Racine Co.)	SW Quadrant 1.1 ha (2.8 ac)	none	0.6 ha (1.4 acres)
	NW Quadrant	none	0.1 ha (0.3 acres)
	NE Quadrant 0.5 ha (1.3 ac)	none	0.1 ha (0.3 acres)
Interchange Subtotal	1.6 ha (4.1 ac)	none	0.8 ha (1.9 acres)
PROJECT TOTAL	135.7 ha (335.2 ac) 109.3 ha (270 ac)	3.3 ha (8.2 acres)	3.2 ha (7.9 acres) 3.8 ha (9.4 acres)

Note:1. Information about the location of primary environmental corridors was provided by SEWRPC. Wetland acreage estimates for large wetland complexes such as those found at CTH C and STH 50 include only the portion of the wetland within the general interchange area.

3. FHWA Wetland Policy

The proposed project does not meet the Federal Highway Administration's (FHWA) Statewide Wetland Finding for implementing Presidential Executive Order 11990, *Protection of Wetlands*. Therefore, an individual wetland finding is required. FHWA approval of the project's final environmental document will serve as the individual wetland finding based on the following provisions:

A total of ~~6.5 hectares (16.1 acres)~~ 7.1 hectares (17.6 acres) of unavoidable wetland loss will occur (see breakdown under Wetland Impacts, page 54.)

Due to the nature of the interchange improvements (separating ramps and frontage roads), the scattered location of wetlands, and their proximity to the interchanges, it is not possible to completely avoid wetland impacts.

The alignments for the new frontage roads and ramps were developed and refined to minimize wetland impacts to the extent practicable, while meeting acceptable engineering design criteria (ramp and frontage road separation distance, frontage road curvature, vertical profile, sight distance, and design speed).

During the project's design engineering phase, further measures to minimize unavoidable wetland impacts will be incorporated into the project plans. These measures will include: keeping roadway sideslopes as steep as practicable; use of equalizer pipes, permeable fill, and other techniques to maintain wetland hydrology; use of excavated wetland soils on roadway sideslopes where practicable; and disposal of unsuitable material outside wetland areas. In addition, erosion control and storm water management measures will be used to protect the wetlands. These include: minimizing the amount of land exposed at one time, erosion bales, temporary seeding, silt fence, ditch checks, erosion mats, ditch or slope sodding, seeding and mulching of exposed soils, and detention basins (constructed outside the wetland area).