Revision History

SUBMITTAL VERSION	DATE	AUTHOR	APPROVER
PRELIMINARY	NOVEMBER 11, 2019	ADAM HEROLD PLAKUT	SCOTT McDonald
PRELIMINARY	JANUARY 10, 2020	TIM WEGNER	SCOTT McDonald
PRELIMINARY	JANUARY 15, 2020	ERIC COLETTA	SCOTT McDonald

Introduction

This Blasting Plan, (herein referred to as "Plan"), describes the procedures and conditions that Enbridge Energy, Limited Partnership (herein referred to as "Enbridge") would use where blasting is required for the Line 5 Wisconsin Segment Relocation Project (Herein referred to as "Project").

Enbridge has developed the proposed Project, which will replace the existing Line 5 pipeline that traverses through the Reservation with new, 30-inch-diameter pipe to be located entirely outside the Reservation. Figure 1 shows the location of the proposed reroute with construction mileposts.

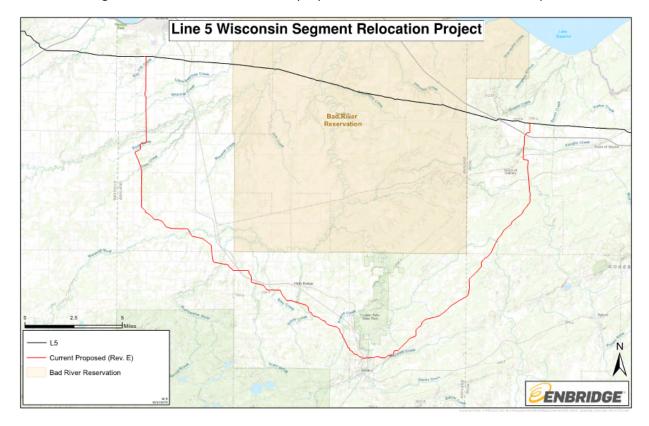


Figure 1 - Project Overview

Preliminary desktop reviews have been completed to identify subsurface conditions along the proposed route including soil types, rock outcrops, and bedrock formations. Upon review of these subsurface conditions, there have been locations identified where conventional trenching techniques will likely be inadequate, and blasting would potentially be required to install the pipeline. These locations are

subject to change based on additional on-site geotechnical investigation, and Enbridge will make every reasonable effort to reduce the extent of blasting required on the Project.

Locations identified to potentially require blasting are based on construction mileposts ranges and are shown in Table 1.

Route Milepost Begin Milepost End Preferred 19.30 21.95 Preferred 22.35 23.90 24.20 Preferred 29.55 Preferred 29.82 31.45 Preferred 31.82 33.70 Preferred 34.00 37.15 Preferred 39.21 37.85 Preferred 39.44 42.00

Table 1 – Potential Blasting Mileposts

With the exception of proposed horizontal directional drills (HDD), installation of the proposed pipeline and construction grading from milepost 19.30 – 42.00 may require blasting. A more accurate prediction of potential blasting locations will be available once on-site geotechnical data is gathered and analyzed.

Purpose of Blasting Plan

This plan will provide guidelines and general requirements for blasting activities that may occur during the Project. This Plan will be supplemental to Enbridge's blasting contractor(s) blasting plans. The blasting contractor(s) are required to develop their own blasting procedures and site-specific blasting plans for each blasting location as required; which will be more project and site specific than the requirements listed in this Plan and are to be submitted to Enbridge prior to any blasting activities.

This Plan is intended to identify general blasting procedures, including safety, use, storage, and transportation of explosives that meet or exceed the minimum safety requirements as defined by federal, state, and local regulations. Regulations include Code of Federal Regulations (herein referred to as "CFR") Title 49 Part 177 – Carriage by Public Highway, CFR Title 29 Part 1910.109 – Occupational Safety and Health Standards– Explosives and Blasting Agents, CFR Title 29 Part 1926 Subpart U – Safety and Health Regulations for Construction - Blasting and the Use of Explosives, Wis. Administrative Code SPS 305.20 – Blasting and Fireworks - Blasters, and National Fire Prevention Association 495, Explosive Materials Code, Chapter 11. Additionally, this plan is intended to address environmental aspects of blasting activities and to identify areas of concern along the proposed Project route.

General Blasting Requirements

All blasting operations must be conducted under the direction and constant supervision of personnel certified and legally licensed to perform such activity in the jurisdiction where blasting occurs. Prior to blasting activities, the blasting contractor(s) will provide Enbridge with the experience, certifications, licenses, and permits associated with the blasting personnel. The Contractor will not use explosives to

excavate any section of the proposed pipeline without a minimum 60 days advanced written notice and the written approval of Enbridge.

All blasting-related operations, including obtaining, transporting, storing, handling, loading, detonating, and disposing of blasting material, as well as ground-motion monitoring shall comply with all applicable federal, state, and local regulations, permit stipulations, and contracts. Blasting for excavation or grading purposes is to be used only when deemed necessary by a construction expert after examination of the site and other reasonable means of excavation have been attempted and are unsuccessful in achieving the required results. Enbridge may specify locations where the proposed pipeline crosses foreign utilities and/or structures in which consolidated rock must be removed by approved mechanical equipment such as rock-trenching, hydraulic rams, jack hammers, or rock saws in lieu of blasting.

Before blasting, site-specific blasting plans consistent with the provisions of this Plan must be submitted by the blasting contractor(s) to Enbridge for approval and review by a licensed Enbridge engineer. Should there be an existing pipeline within 50 feet of an area proposed for blasting, the blasting contractor will complete a stress calculation to propose the allowable pounds of explosive per delay interval and determine the combined stress level of each affected pipeline. These recommendations must be reviewed by Enbridge and approved before blasting can commence.

Site-Specific Blasting Plans

The blasting contractor(s) will create a site-specific blasting plan for any area determined to require blasting. Each site-specific blasting plan will include details and calculations regarding environmental variables that will be recorded closer to the time of the blast. The site-specific blasting plan will take into account environmental/site-specific conditions that exist, as well as methods, materials, and locations of all explosives to be used for blasting.

Each plan will include a pre-blast risk assessment and must include at a minimum the following:

- Blasting contractor's name, company, copy of license, qualifications;
- Seismograph company, names, equipment, and sensor location;
- Copies of all permits;
- Materials including explosive type, product name and size, weight per unit, and density;
- Methods including tamping method, blasting sequence, non-electrical initiation systems, magazine type, and storage locations;
- Site dimensions, explosive depth, distribution, maximum charge/weight per delay;
- Hole depth, diameter, pattern, and number of holes per delay;
- Dates and hours that blasting will be conducted, distance and orientation to nearest above/below grade structures, and schedule identifying when blasting would occur within each waterbody greater than 10 feet wide or within any designated coldwater fishery;
- The distance within which above/below grade structures will be affected by the blast and all structures located within that distance;
- Blasting procedures for:
 - Storing, handling, transporting, loading, and activating explosives;

- Prevention measures for misfires, flyrock, fire, noise, and stray current accidental detonation;
- o Signs, flagging, flagmen, and warning signals prior to each blast;
- o Pre-blast inspections;
- Locations in which the pipeline route and construction workspace:
 - Parallels or crosses an above or below grade electrical transmission line;
 - Parallels or crosses a highway or road;
 - Is within or adjacent to treed areas;
 - Approaches any potable water source, residence, building, occupied structure, or recreational area (distance to be determined by blasting contractor based on site-specific conditions and blasting specifications);
- Timing and method(s) of notification of any affected residences, buildings, and occupied structures within the distances determined by the blasting contractor's pre-blast surveys.
- o Post-blast inspections; and
- Disposal methods of blasting material waste.

Pre-Blasting Requirements

Prior to blasting, the blasting contractor(s) must:

- Provide all aforementioned documentation (site-specific blasting plan, qualifications, permits, etc.);
- Make all necessary "one call" notifications 48 hours prior to blasting as required;
- Complete all necessary pre-blasting notifications, surveys, and tests for the protection of above/below grade structures; and
- Verify to Enbridge that all property owners have been notified of the impending construction.

Monitoring

During blasting operations, the blasting contractor(s) will monitor operations as specified by the approved Blasting Plan and applicable regulations. A seismograph will be provided to record peak particle velocity of all blasts in the vertical, longitudinal, and transverse directions. Seismic monitoring shall continue unless written authorization is explicitly given by an Enbridge representative.

An independent third-party contractor will monitor the seismographs and provide Blasting Log records to Enbridge. All seismographs will be deployed and calibrated per the standards outlined by the International Society of Explosive Engineers. The peak particle velocity will be measured at adjacent pipeline(s), potable water sources, and aboveground structure within the distance established by the blasting contractor.

A Blast Report will be completed immediately after each blast. A copy of all Blast Reports, and all other required documentation, will be provided to Enbridge and applicable agencies as required.

Safety

Protection of Aboveground and Underground Structures

Where blasting is required, Enbridge will identify any municipal water mains and will consult the local water authority. Reports of identified crossings will include location by milepost, owner, and status and results of contacts with the water authority.

The blasting contractor(s) will exercise control to prevent damage to aboveground and underground structures, including buildings, pipelines, utilities, springs, and water wells. The Contractor will implement the following procedures:

- Any potable water source and/or associated pipe system within the distance established by the blasting contractor would be tested for yield and water quality before blasting. If damaged, Enbridge will repair or otherwise restore any damage, or Enbridge will compensate the owner for damages. Enbridge will provide an alternative potable water supply to the landowner until repairs occur. Locations of potable sources and/or associated pipe systems within the distance established by the blasting contractor will be indicated on Enbridge's construction alignment sheets.
- A third-party vibration monitor and an Enbridge representative Enbridge will inspect all
 aboveground structures within the distance established by the blasting contractor
 before and after blasting. In the unlikely event that damage occurs to the aboveground
 structure, the owner will be compensated.
- The blasting contractor(s) is responsible for the ultimate resolution of all damage claims resulting from blasting.
- Blasting will not be allowed within 15 feet of an existing pipeline, unless specifically authorized by Enbridge.
- Holes that have contained explosive material shall not be re-drilled. Holes must not be drilled where danger exists of intersecting another hole containing explosive material.
- Blasting mats or padding will be used on all shots where necessary to prevent scattering
 of loose rock onto adjacent property and to prevent damage to nearby structures and
 overhead utilities.
- Blasting cannot begin until occupants of nearby buildings, stores, residences, places of business, places of public gathering, administrators of public recreation areas, and farmers have been notified by the blasting contractor(s) sufficiently in advance to protect personnel, property, and livestock. The blasting contractor(s) must notify all such parties at least 48 hours prior to blasting; the specifics of how this notification will occur will be in the site-specific Blasting Plan.
- Blasting in or near environmentally sensitive areas such as streams and wildlife areas may include additional restrictions.
- All blasting is subject to the following limitations.

- Maximum PPV of 12.0 inches per second in any of three mutually perpendicular axes, measured at the lesser distance of the nearest facility or the edge of the permanent easement.
- Maximum diameter of explosive may be no larger than 2 inches unless approved by Enbridge.
- Maximum quantity of explosive per delay is governed by the recorded measurements as influenced by work site conditions.
- Explosive agents and ignition methods shall be approved by Enbridge.
- O Clean, crushed ¼ 3/8 inch angular stemming material is to be used in all holes.
- O Holes are to be covered with a form of protective matting or cover to prevent flyrock as directed by Enbridge.
- The drilling pattern must be set in a manner to achieve smaller rock fragmentation (maximum 1 foot in diameter) in order to use as much as possible of the blasted rock as backfill material after the pipe has been padded in accordance with the specifications. The blasting contractor(s) must submit the proposed drilling pattern to Enbridge for approval.
- Under pipeline crossings and all other areas where drilling and blasting is required within 15 feet of existing facilities:
 - Enbridge approval must be given prior to blasting.
 - Drill holes must be reduced to a maximum of 2 inches or less in diameter.
 - The number of holes shot at one time is limited to three unless otherwise approved by Enbridge.
 - Appropriate delay between charges to attain desired fragmentation.

Protection of Personnel

The blasting contractor(s) must include in its procedures all federal, state, county, and local safety requirements for blasting. The procedures must address, at a minimum, the following requirements:

- The employer shall permit only authorized and qualified persons to handle and use explosives.
- All explosives shall be accounted for at all times.
- Employees authorized to prepare explosive charges or conduct blasting operations shall use
 every reasonable precaution including, but not limited to, visual and audible warning
 signals, flags, or barricades, to ensure employee safety.
- All blasting activities must be conducted only during daylight hours.
- Adequate signs, warning against the use of mobile radio transmitters, are to be prominently displayed on all roads within 1,000 feet of blasting operations.

- Explosives, blasting agents, and blasting supplies that are obviously deteriorated or damaged shall not be used.
- Tamping shall be done only with wood rods or plastic tamping poles without exposed metal parts, but non-sparking metal connectors may be used for jointed poles. Violent tamping shall be avoided. The primer shall never be tamped.
- No explosives or blasting agents shall be left unattended at the blast site.
- No activity of any nature other than that which is required for loading holes with explosives shall be permitted in a blast area.
- No explosive shall be loaded or used underground in the presence of combustible gases or combustible dusts.
- No loaded holes shall be left unattended or unprotected.
- All loading and blasting activity must cease and personnel in and around the blast area will
 retreat to a position of safety during the approach and progress of an electrical storm
 irrespective of the type of explosives or initiation system used.
- Fly-rock leaving the right-of-way must be collected immediately and disposed of at disposal sites approved by Enbridge. This work shall not be left to the cleanup crew.

Protection of Threatened and Endangered Species

The blasting contractor will be required to coordinate with Enbridge's environment staff during initial planning to determine the potential to effect threatened and endangered species, as well as to implement measures to avoid impacts to identified species.

Lightning Hazard

A risk of accidental detonation caused by lightning strikes exists at any time the workplace is experiencing an electrical storm and there are loaded holes on site. If this hazard is judged to exist by the Enbridge representative, work will discontinue at all operations and workers will be moved to secure positions away from the loaded holes. Furthermore, workers cannot return to the work site until the storm has passed and the Enbridge representative has indicated it is clear to return.

Enbridge's blasting contractor(s) must have on site approved lightning detectors capable of measuring the degree of electrical activity as a storm approaches, and the distance from the storm to the instrument.

In-Water Blasting

Based on Enbridge's review of the geologic conditions present along the route, there are currently locations that may require in-stream blasting. Enbridge will explore every possibility to avoid the use of blasting in these areas, and instead use other methods to fracture bedrock adequately. The extent of bedrock present on either side of the stream crossing may deem traditional methods of construction non-feasible but will depend on on-site geotechnical investigation. Using the blasting method would allow the Project to minimize the amount of time required working in the stream and overall disturbance to the feature.

At such locations, the blasting contractor(s) will furnish the necessary labor and equipment to employ best management practices required by regulatory agencies to protect the feature. Following any blasting activities, stream channels will be restored to near pre-construction contours, alignment, and conditions through post-construction restoration activities. Enbridge will monitor this crossing following construction as part of its Post Construction Monitoring Plan.

Table 2 shows list of identified stream crossings along the preferred route that may require in-stream blasting. In-water blasting locations are subject to change based on on-site geotechnical investigation.

Crossing	Crossing Milepost
Unnamed Creek	20.4
Unnamed Creek	21.49
Unnamed Creek	27.77
Unnamed Creek	28.21
Unnamed Creek	28.48
Unnamed Creek	38.36
Unnamed Creek	38.86
Vaughn Creek	Vaughn Creek
Unnamed Creek	39.78

Table 2 – Potential In-Water Blasting Locations

Storage Requirements

Explosives and related materials shall be stored in approved facilities required under the applicable provisions of the Bureau of Alcohol, Tobacco and Firearms regulations contained in 27 CFR part 55, Commerce in Explosives. Additional storage provisions include, but are not limited to the following:

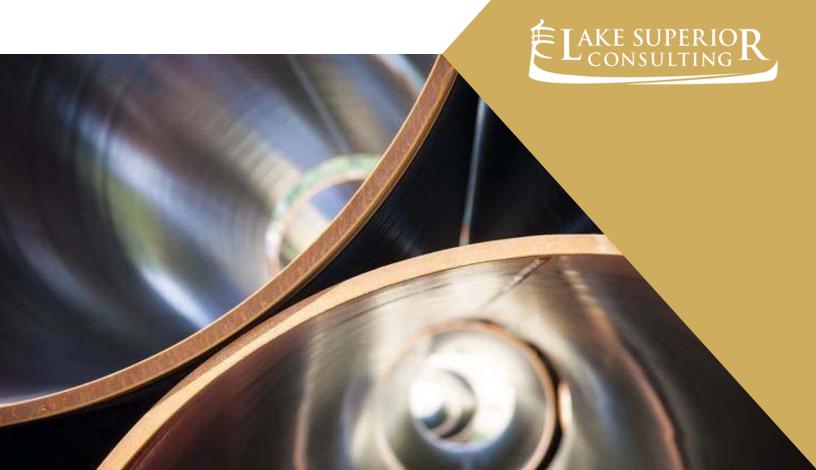
- Blasting caps, electric blasting caps, detonating primers, and primed cartridges shall not be stored in the same magazine with other explosives or blasting agents.
- Smoking and open flames shall not be permitted within 50 feet of explosives and detonator storage magazine.
- Explosives not being used shall be kept in a locked magazine, unavailable to persons not authorized to handle them. The employer shall maintain an inventory and use record of all explosives. Appropriate authorities shall be notified of any loss, theft, or unauthorized entry into

- a magazine. Magazines will be marked in minimum 3-inch high letters with the words "DANGER EXPLOSIVES" prominently displayed on all sides and roof.
- When explosive materials are taken from the storage magazine, they must be kept in the
 original containers until used. Small quantities of explosive materials may be placed in day
 boxes, powder chests, or detonator boxes. Any explosive material not used at the blast site must
 be returned to the storage magazine and replaced in the original container as soon as possible.



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Line 5 Wisconsin Segment Relocation Project

Ashland, Bayfield, Douglas, and Iron Counties Wisconsin

Water Resources Application for Project Permits

Environmental Impact Report

Revised August 2020

EIR Attachment F

Invasive Species List

County	Species	Noxious Common Name	Scientific Name	Regulatory Classification
WISCONSIN				
Statewide	Animal	Feral domestic swine	Sus domestica	Prohibited
		Russian boar & other wild swine	Sus scrofa	Prohibited
Statewide	Aquatic Fish and Invertabrate Invasives		Bithynia tentaculata	Prohibited
		Asian clam	Corbicula fluminea	Prohibited
		Cylindro (cyanobacteria)	Cylindrospermopsis raciborskii	Prohibited
		Water flea	Daphnia lumholtzi	Prohibited
		Didymo or rock snot	Didymosphenia geminata	Prohibited
		Chinese mitten crabs	Eriocheir sinensi	Prohibited
		Bloody shrimp	Hemimysis anomala	Prohibited
		Starry stonewort (alga)	Nitellopsis obtusa	Prohibited
		Red swamp crayfish	Procambarus clarkii	Prohibited
		Golden alga	Prymnesium parvum	Prohibited
		Novel cyanobacterial epiphyte of the order		
		Stigonematales linked with avian vacuolar	Stigonematales spp.	Prohibited
		myelinopathy		
Ashland Co		Fishhook water flea	Cercopagis pengoi	Prohibited
		Zebra mussel	Dreissena polymorpha	Restricted
		Quagga mussel	Dreissena rostriformis	Prohibited
		New Zealand mud snail	Potamopyrgus antipodarum	Prohibited
Ashland Co, Iron C	Co	Spiny water flea	Bythotrephes cederstroemi	Prohibited
,		Chinese mystery snail	Cipangopaludina chinensis	Restricted
		Rusty crayfish	Orconectes rusticus	Restricted
tatewide	Aquatic species	Killer algae	Caulerpa taxifolia (Vahl) C. Agardh1	NW, Prohibited
		Water hyacinth, floating	Eichhornia crassipes	Prohibited
		Anchored waterhyacinth	Eichhornia azurea (Sw.) Kunth	NW, Prohibited
		Floating marsh pennywort	Hydrocotyle ranunculoides	Prohibited
		Indian swampweed	Hygrophila polysperma	Prohibited
		Water spinach, swamp morning-glory	Ipomoea aquatica	Prohibited
				Prohibited
		Asian marshweed Malaysian trumpet snail	Limnophila sessiliflora Melanoides tuberculata	Prohibited
		· ·		
		Spiny naiad	Najas marina	Restricted
		Java waterdropwort or Vietnamese parsley	Oenanthe javanica	Prohibited
		duck-lettuce	Ottelia alismoides (L.) Pers.	NW, Prohibited
		Water lettuce	Pistia stratiotes	Prohibited
		Giant salvinia	Salvinia molesta	Prohibited
		Sterlet	Acipenser ruthenus	Restricted
		Asiatic clam	Alosa pseudoharengus	Restricted
		Mosquito fern	Azolla pinnata	Prohibited
		Goldfish	Carassius auratus	Restricted
		Snakehead family	Channidae	Prohibited
		Japanese trapdoor snail or Japanese mystery snail	Cipangopaludina japonica	Restricted
		Grass carp	Ctenopharyngodon idella	Prohibited
		Red shiner	Cyprinella lutrensis	Prohibited
		Common carp, Koi carp	Cyprinus carpio	Restricted
		Killer Shrimp	Dikerogammarus villosus	Prohibited
		Western mosquitofish	Gambusia affinis	Restricted
		Eastern mosquitofish	Gambusia holbrooki	Restricted
		Three-spine stickleback	Gasterosteus aculeatus	Restricted
		Mudmat	Glossostigma cleistanthum	Prohibited
		Redear sunfish	Lepomis microlophus	Restricted
		Ide	Leuciscus idus	Restricted
		Golden mussel	Limnoperna fortunei	Prohibited
		Weather loach	Misgurnus anguillicaudatus	Restricted
		White perch	Morone americana	Restricted
		Black carp	Mylopharyngodon piceus	Prohibited
		Forget-me-not, Aquatic forget-me-not	Myosotis scorpiodes	Restricted
		Chinese hi-fin banded shark	Myxocyprinus asiaticus	Restricted
		Sacred Lotus	Nelumbo nucifera	Prohibited
		Pink salmon	Oncorhynchus gorbuscha	Restricted
		Coho salmon	Oncorhynchus kisutch	Restricted
		Rainbow trout	Oncorhynchus mykiss	Restricted
		Chinook salmon	Oncorhynchus tshawytscha	Restricted
		Tubenose Goby	Proterorhinus marmoratus	Restricted
		Bitterling	Rhodeus spp.	Restricted
		Atlantic salmon	Salmo salar	Restricted
		Brown trout	Salmo trutta	Restricted
		Arctic char	Salvelinus alpinus	Restricted
		Tiger trout	Salvelinus fontinalis x Salmo trutta	Restricted
		Giant Salvinia	Salvinia herzogii	Prohibited
		Rudd	Scardinius erythrophthalmus	Prohibited
		Water Soldiers	Stratiotes aloides	Prohibited
		Tilapia	Tilapia spp.	Restricted
		Tench	Tinapia spp. Tinca tinca	Prohibited
			rinca tinca	Prombited
		Ulva species, including species previously known as	Ulva (Enteromorpha) species	Prohibited
		Enteromorpha species		
		European valve snail	Valvata piscinalis	Restricted
			Gymnocephalus cernuus	Restricted
shland Co		Ruffe		
shland Co		Ruffe Silver carp	Hypophthalmichthys molitrix	Prohibited
Ashland Co				
Ashland Co		Silver carp	Hypophthalmichthys molitrix	Prohibited

County	Species	Noxious Common Name	Scientific Name	Regulatory Classification
Iron Co		Zander Rainbow smelt	Sander lucioperca Osmerus mordax	Prohibited Restricted
Ashland Co, Iror	1 CO	Banded mystery snail	Viviparus georgianus	Restricted
, 15.11.01.10 00, 11.01		Freshwater jellyfish	viniparas georgianas	nestricted
Statewide	Aquatic Weed	Fanwort, Carolina Fanwort	Cabomba caroliniana	Prohibited
		Australian swamp crop or New Zealand pygmyweed	Crassula helmsii	Prohibited
		European frog-bit	Hydrocharis morsus-ranae	Prohibited
		Oxygen-weed, African elodea or African waterweed		Prohibited
		Parrot feather	Myriophyllum aquaticum	Prohibited
		Brittle naiad, or lesser, bushy, slender, spiny or mino	r Najas minor	
		naiad or waternymph	No and the state of the state o	Prohibited
		Yellow water heart, floating heart	Nymphoides peltata	Prohibited
		Water chestnut Brazilian waterweed or wide-leaf anacharis	Trapa natans	Prohibited
		hydrilla	Egeria densa Hydrilla verticillata (L. f.) Royle	Prohibited NW, Prohibited
Ashland Co, Iror	2 (0	Eurasian watermilfoil	Myriophyllum spicatum L.	Restricted
Asiliana Co, iroi	160	Curly-leaf pondweed	Potamogeton crispus	Restricted
Statewide	Bird	Monk or Quaker parakeet or parrot	Myiopsitta monachus	Prohibited
Statewide	Forbs	Japanese chaff flower	Achyranthes japonica	Prohibited
		Wormwood	Artemesia absinthium	Restricted
		Narrow leaf bittercress	Cardamine impatiens	Prohibited
		Diffuse knapweed	Centaurea diffusa	Prohibited
		Brown knapweed, Black knapweed	Centaurea jacea, Centaurea nigra	Restricted
		Tyrol knapweed	Centaurea nigrescens	Restricted
		Russian knapweed	Centaurea repens	Prohibited
		Lily-of-the-valley	Convallaria majalis	
		field bindweed, creeping Jenny	Convolvulus arvensis L.	NW
		Crown vetch	Coronilla varia	Restricted
		Cheat grass	Crepis tectorum	
		wild carrot; Queen Anne's-lace	Daucus carota	
		Bohemian knotweed	Fallopia x bohemicum or F. x bohemica or	Prohibited
		boneman knotweed	Polygonum × bohemicum	Trombited
		Queen of the meadow	Filipendula ulmaria	Restricted
		White bedstraw	Galium mollugo	Restricted
		Creeping Charlie	Glechoma hederacea	
		Orange daylily	Hemerocallis fulva	
		Orange hawkweed	Hieracium aurantiacum	
		Yellow hawkweed	Hieracium caespitosum	
		St. John's wort	Hypericum perforatum	
		Balfour's touch-me-not	Impatiens balfourii	Restricted
		Policeman's Helmet	Impatiens glandulifera	Prohibited
		Field scabiosa	Knautia arvensis	Restricted
		Motherwort	Leonurus cardiaca	
		Dalmatian toadflax	Linaria dalmatica	Prohibited/ Restricted
		Bird's-foot trefoil	Lotus corniculatus	
		Moneywort	Lysimachia nummularia (or L. nummelaria)	Restricted
		Garden yellow loosestrife	Lysimachia vulgaris	Restricted
		Wanded loosetrife	Lythrum virgatum	Prohibited
		White sweet clover	Melilotus alba	
		Yellow sweet clover	Melilotus officinalis	0
		woodland forget-me-not	Myosotis sylvatica (or M. sylvaticum)	Restricted
		Butterfly Dock	Petasites hybridus	Prohibited
		Scarlet pimpernel or Burnet saxifrage	Pimpinella saxifraga	Restricted
		Lesser celandine	Ranunculus ficaria	Prohibited
		Sheep sorrel	Rumex acetosella	
		Climbing nightshade Seaside goldenrod	Solanum dulcamara Solidago sempervirens	Prohibited/ Restricted
		Colt's foot	Tussilago farfara	Prohibited/ Restricted Prohibited
		Common periwinkle	Vinca minor	rionibited
		Garden heliotrope or Valerian	Valeriana officinalis	Restricted
ron Co		Yellow iris	Iris pseudacorus	Restricted
itatewide	Forest	Soapwort	Saponaria officinalis	ACSUICCC
	Torest	Red clover	Trifolium pratense	
		White clover	Trifolium repens	
tatewide	Fungus	Thousand cankers disease of walnut	Geosmithia morbida	Prohibited
	Fungus	Sudden oak death pathogen	Phytophthora ramorum	Prohibited
	Fungus	White-nose syndrome fungal pathogen	Pseudogymnoascus destructans	Prohibited
tatewide	Grass	Giant reed	Arundo donax	Prohibited
		Smooth brome	Bromus inermis	
		Quackgrass	Elytrigia repens	
		Tall fescue	Festuca arundinacea	
		Wavy leaf basket grass	Oplismenus hirtellus ssp. Undulatifolius	Prohibited
		Reed canary grass (nn)	Phalaris arundinacea (nn)	
		Common reed grass (nn)	Phragmites australis (nn)	
		Canada bluegrass	Poa compressa	
		Kentucky bluegrass	Poa pratensis	
		Johnson grass	Sorghum halepense	Prohibited
		Medusahead	Taeniatherum caput-medusae	Prohibited
		Southern cattail	Typha domingensis	Prohibited
			Typha laxmannii	Prohibited

County	Species	Noxious Common Name	Scientific Name	Regulatory Classification
		ribbon grass or gardener's garters and other	Phalaris arundinacea var. picta	Restricted
Statewide	Insect	ornamental variegated varieties and cultivars. Hemlock woolly adelgid	Adelges tsugae	Prohibited
Statewide	msect	Emerald ash borer	Agrilus planipennis	Restricted
				Restricted
		Jumping worm	Amynthas or Amynthus species	
		Asian longhorned beetle	Anoplophora glabripennis	Prohibited
		Mountain Pine Beetle	Dendroctonus ponderosae	Prohibited
		European Gypsy moth	Lymantria dispar	Restricted
		Asian Gypsy moth	Lymantria dispar (Asian race)	Prohibited
		Walnut twig beetle	Pityophthorus juglandis	Prohibited
Statewide	plant	goutweed; bishops weed; (also called snow-on-the-	Aegopodium podagraria	
		mountain). Bishop's goutweed	taula halanium	
		elecampane	Inula helenium	
		common reed; giant reed-grass	Phragmites australis(=Phragmites communis)	
		burnet-saxifrage	Pimpinella saxifraga	
		Woods bluegrass	Poa nemoralis	Darkikis d
		Grecian foxglove	Digitalis lanata	Prohibited
		Indian yam	Dioscorea oppositifolia	Prohibited
		Sawtooth oak	Quercus acutissima	Prohibited
	CL . I	Seaside goldenrod	Solidago sempervirens	Prohibited/ Restricted
tatewide	Shrub	Japanese barberry	Berberis thunbergii	Restricted
		Common barberry	Berberis vulgaris	Prohibited
		Siberian peashrub	Caragana arborescens	Restricted
		Burning bush	Euonymus alatus	Restricted
		Common, european buckthorn	Rhamnus cathartica	Restricted
		Rose acacia or Bristly locust	Robinia hispida	Restricted
		Himalayan blackberry	Rubus armeniacus	Prohibited
tatewide	Terrestial Weed	Tree of heaven	Ailanthus altissima	Restricted
		Garlic mustard	Alliaria petiolata	Restricted
		Porcelain berry	Ampelopsis brevipedunculata	Prohibited
		Wild chervil	Anthriscus sylvestris	Prohibited/ Restricted
		Common burdock	Arctium minus	
		Hill mustard	Bunias orientalis	Prohibited/ Restricted
		Creeping bellflower	Campanula rapunculoides	Restricted
		Plumeless thistle	Carduus acanthoides	Restricted
		Musk thistle or Nodding thistle	Carduus nutans	Restricted
		Oriental bittersweet	Celastrus orbiculatus	Restricted
			Centaurea biebersteinii, Centaurea maculosa or	
		Spotted knapweed	Centaurea stoebe	Restricted
		Yellow star thistle	Centaurea solstitialis	Prohibited
		Celandine	Chelidonium majus	Restricted
		Canada thistle	Cirsium arvense (L.) Scop.	NW, Restricted
		swamp thistle, European marsh thistle	Cirsium palustre	Prohibited/ Restricted
		poison-hemlock	Conium maculatum	Prohibited/ Restricted
		Hound's tongue	Cynoglossum officinale	Restricted
		Scotch broom	Cytisus scoparius	Prohibited
		Chinese yam	Dioscorea batatas or Dioscorea polystacha	Prohibited
		Cut-leaved teasel	Dipsacus laciniatus	Restricted
		Common teasel	Dipsacus sylvestris or Dipsacus fullonum	Restricted
		Russian olive	Elaeagnus angustifolia	Restricted
		Autumn olive	Elaeagnus umbellata	Restricted
		Helleborine orchid	Epipactis helleborine	Restricted
		Hairy willow herb	Epilobium hirsutum	Prohibited/ Restricted
		•	•	
		Cypress spurge	Euphorbia cyparissias Euphorbia esula L.	Restricted
		Leafy spurge	•	NW, Restricted
		Japanese knotweed	Fallopia sachalinansis or Polygonum cuspidatum	Restricted
		Giant knotweed	Fallopia sachalinensis or Polygonum sachalinense	
		Hemp nettle, brittlestem hemp nettle	Galeopsis tetrahit	Restricted
		Tall or reed mannagrass	Glyceria maxima	Prohibited/ Restricted
		Giant hogweed	Heracleum mantegazzianum	Prohibited
		Perennial peppergrass or broadleaved pepperweed	Lepidium latifolium	Prohibited
		Sericea or Chinese lespedeza	Lespedeza cuneata or Lespedeza sericea	Prohibited
		Lyme grass or sand ryegrass	Leymus arenarius or Elymus arenarius	Prohibited/ Restricted
		Japanese honeysuckle	Lonicera japonica	Prohibited
		Amur honeysuckle	Lonicera maackii	Prohibited/ Restricted
		Morrow's honeysuckle	Lonicera morrowii	Restricted
		Tartarian honeysuckle	Lonicera tatarica	Restricted
		Bell's or showy bush honeysuckle	Lonicera x bella	Restricted
		Japanese stilt grass	Microstegium vimineum	Prohibited
		wild parsnip	Pastinaca sativa	Restricted
		Princess tree	Paulownia tomentosa	Prohibited
		Mile-a-minute vine	Polygonum perfoliatum or Persicaria perfoliata	Prohibited
		Kudzu	Pueraria montana or P. lobata	Prohibited
		Glossy buckthorn	Rhamnus frangula or Frangula alnus	Restricted
		Multiflora rose	Rosa multiflora Thunb.	NUW, Restricted specie
		Wineberry or wine raspberry	Rubus phoenicolasius	Prohibited
		Tansy	Tanacetum vulgare	Restricted
		Spreading hedgeparsley	Torilis arvensis	Prohibited
		Japanese hedgeparsley or erect hedgeparsley	Torilis japonica	Prohibited/ Restricted
		Narrow-leaf cattail	Typha angustifolia	Restricted
		Cattail, hybrid	Typha ungustijona Typha x glauca	Restricted

County	Species	Noxious Common Name	Scientific Name	Regulatory Classification
		Pale or European swallow-wort	Vincetoxicum rossicum or Cynanchum rossicum	Prohibited
Ashland Co		Japanese hops	Humulus japonicus	Prohibited/ Restricted
		purple loosestrife	Lythrum salicaria, Lythrum L.	NUW, Restricted species
		Phragmites or Common reed non-native ecotype	Phragmites australis non-native ecotype	Prohibited/ Restricted
		Japanese knotweed	Polygonum cuspidatum	
Statewide	Tree	Norway maple	Acer platanoides	
		Amur maple	Acer tataricum subsp. Ginnala	Restricted
		Black (European) alder	Alnus glutinosa	Restricted
		White mulberry	Morus alba	Restricted
		Amur cork tree	Phellodendron amurense	Prohibited
		Scotch pine	Pinus sylvestris	
		White poplar	Populus alba	Restricted
		Black locust	Robinia pseudoacacia	Restricted
		Siberian elm	Ulmus pumila	Restricted
Statewide	Vine	Chocolate vine, Fiveleaf akebia	Akebia quinata	Prohibited
		Asian loeseneri bittersweet	Celastrus loeseneri	Prohibited
		Japanese/ Chinese wisteria	Wisteria floribunda/ sinensis	Prohibited
Statewide	Wetland Invasive species	Dame's rocket	Hesperis matronalis	Restricted
		Nutria	Myocastor coypus	Prohibited
		Hawaii arrowhead	Sagittaria sagittifolia	Prohibited
Ashland Co	•	Flowering rush	Butomus umbellatus	Restricted

Abbreviations: NW = Noxious Weed NUW = Nusiance Weed



Line 5 Wisconsin Segment Relocation Project

Ashland, Bayfield, Douglas, and Iron Counties Wisconsin

Water Resources Application for Project Permits

Environmental Impact Report

Revised August 2020

EIR Attachment G

Land Cover Data

