

Memorandum of Understanding

Between

Brown County Land & Water Conservation Department

And

The Village of Allouez, The Village of Bellevue, The City of De Pere, The Town of Ledgeview, and the City of Green Bay

This Memorandum of Understanding (MOU) is made and entered into between the Brown County Land & Water Conservation Department (BCLWCD) and the

The Village of Allouez, The Village of Bellevue, The Town of Ledgeview, and the City of Green Bay, hereinafter referred to as the “Parties”.

Article 1- Purpose:

The purpose for executing this Memorandum of Understanding is to establish goals and guidelines, between BCLWCD and the Parties, associated with the East River Water Trail project. BCLWCD seeks to create, coordinate and enhance resource conservation along the East River between Hoffman and Dickinson Road, for economic, social, and environmental development; and recognizes that the Parties and their contributions to this mission are essential. BCLWCD seeks to provide opportunity for Parties to share and leverage limited resources, raise awareness about problems, and collaboratively improve the welfare of communities and the lives of their residents.

Article 2- Statement of Mutual Goals, Interests, and Benefits:

The primary focus areas of BCLWCD and the Parties are: clean water, sustainable forestry, wildlife habitat, native plant conservation, recreational opportunities and water access. BCLWCD effectively works in these areas by leveraging conservation funds to provide project management, technical assistance, outreach and education. The Parties goals and interests align with these focus areas and objectives.

Article 3- Legislative and Fiscal Authority:

This MOU is neither a fiscal nor a funds obligating document. Any endeavor involving reimbursement or contribution of funds between the parties to this MOU will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority.

Article 4- Statement of Agreement:

It is the intent of this MOU to create a partnership to enhance the potential for success of each Party by encouraging sharing of resources, information, and effort on a willing and cooperative basis on both public and private lands and waters. This MOU is not intended to establish legal authorities or

mandates where they do not currently exist.

The undersigned Parties mutually agree to the following:

1. Designate the BCLWCD as the managing authority over this project.
2. Share information among the Parties and aid and expertise regarding economic, social, and/or environmental issues of mutual interest.
3. Municipalities shall collaborate to accomplish common goals of the project.
4. Contribute to the development of municipality specific operation and maintenance plans.
5. Utilize BCLWCD as a fiscal sponsor for grants as necessary and appropriate.
6. Maintain appropriate communication with municipality residents concerning project happenings.
7. Promote the Parties' partnerships through media and public outreach.
8. Contribute to the development of municipality specific operation and maintenance plans.
9. Municipalities will commit in-kind resources to the operation and maintenance of installed practices. Operation and maintenance requirements will be mutually agreed upon before the practices are installed. ***Estimated in-kind contributions per municipality may be ≤ 50 hours per years based on installed practices for years 2024, 2025 and 2026.**
10. Review this MOU and request revisions and updates as necessary to meet the purpose of this agreement. Amendments shall become effective upon approval by all Interested Parties.
11. All members of this agreement will be notified of and can attend BCLWCD East River Water Trail meetings.

Article 5- Terms of Agreement:

Partial grant funding for the East River Water Trail will expire December 31, 2024, at which time the MOU will be subject to review, renewal or expiration. However, maintenance obligations from the Parties will exist in perpetuity. If the Parties mutually agree to continue cooperation, a new agreement shall be executed. Both the BCLWCD and the Parties acknowledge that they have a unique and specialized agreement and partnership that allows for the best establishment and operation of the East River Water Trail. The BWLCD and the Parties desire that this document be an agreement between all entities to work together in such a manner to create educational and engaging opportunities for the public, maintain a seamless and efficient experience for the public and employees, and sustain optimal financial, managerial, and administrative commitment with regards to cooperatively establishing the East River Water Trail.

Article 6- Hold Harmless:

Hold Harmless: The Parties each hereby agree to release, indemnify, defend and hold harmless Brown County, its officials, officers, employees and agents from and against all judgments, damages, penalties, losses, costs, claims, expenses, suits, demands, debts, actions and/or causes of action of any type or nature whatsoever, including actual and reasonable attorney fees, which may be sustained or to which they may be exposed, directly or indirectly, by reason of personal injury, death, property damage, or other liability, alleged or proven, resulting from or arising out of the good faith

performance by BCLWCD, its officers, officials, employees, agents or assigns, as the managing authority over the Project under this MOU. Brown County does not waive, and specifically reserves its right to assert any and all affirmative defenses and limitations of liability as specifically set forth in Wisconsin Statutes, Chapter 893 and related statutes.

Article 7- MOU Modification:

Modifications within the scope of this MOU shall be made by unanimous approval by BCLWCD and the Parties.

Article 8- Key Officials and Signatures:

A separate sheet is included designating the key official to this MOU and the signature of the person authorized to enter into this agreement.

MEMORANDUM OF UNDERSTANDING

Brown County Land & Water Conservation Department

And

The Village of Allouez, The Village of Bellevue, The City of De Pere, The Town of Ledgeview, and the City of Green Bay

Signatory for: _____
Village of Allouez

_____	_____
Name, Title	Date

Signatory for: _____
Village of Bellevue

_____	_____
Name, Title	Date

Signatory for: _____
Town of Ledgeview

Name, Title

Date

Signatory for: _____
City of Green Bay

Name, Title

Date

Signatory for: _____
City of De Pere

Name, Title

Date

Signatory for **Brown County Land and Water Conservation Department.**

Signatory for: _____
Brown County

Name, Title

Date

Signatory for: _____
Brown County

Name, Title

Date

CONSTRUCTION PLAN

PRACTICE EAST RIVER WATER TRAIL PHASE I - REQUEST FOR PROPOSAL
LANDOWNER TOWN OF LEDGEVIEW; VILLAGE OF ALLOUEZ; CITY OF DE PERE; VILLAGE OF BELLEVUE; GERALD BIGELOW
ADDRESS 2064 DICKINSON ROAD, DE PERE, WI 54115, BETWEEN HOFFMAN AND DICKINSON RD
LANDOWNER PHONE NO. 920-391-4624 COUNTY BROWN
TOWNSHIP LEDGEVIEW, ALLOUEZ, DE PERE, BELLEVUE 23 N, R 20 E, Sec. 25
FIELD OFFICE BROWN COUNTY LWCD TELEPHONE NO. 920-391-4624

DIGGERS HOTLINE

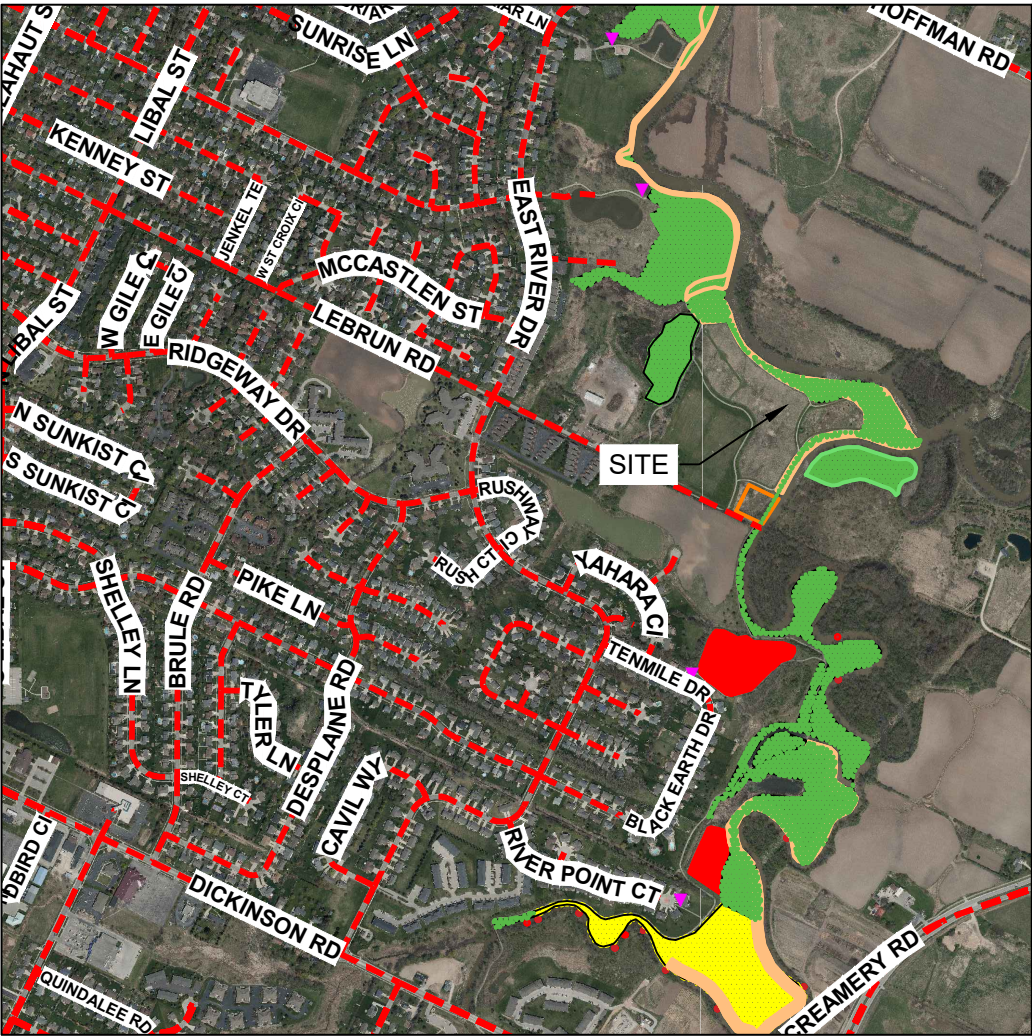
Call 3 Work Days
Before You Dig!

Nationwide
811

Toll Free
1-800-242-8511

TDD
1-800-542-2289

Website
www.diggershotline.com



LOCATION MAP

NOTICE TO LANDOWNERS AND EXCAVATORS

Any representation made by Brown County LWCD as to the approximate location or nonexistence of above or under ground hazards does not relieve the owner of the property or the excavator that is hired to complete construction, from notifying Diggers Hotline of the pending construction. You will be liable for damages resulting from construction activities.

Call Diggers Hotline! Ticket Number

CONSTRUCTION DRAWINGS AND SPECIFICATIONS ACCEPTANCE

I have reviewed and understand the construction plans and specifications and agree to complete the work accordingly. Failure to meet these plans and specifications may jeopardize any continued LWCD technical assistance or program cost sharing applied for. I understand that it is my responsibility to secure all necessary permits and licenses, and to complete the work in accordance with all local, state, and federal laws. Modification of these construction plans or specifications must be approved by Brown County LWCD before installation. I assume all responsibility for negotiations and contract agreements with the construction contractors.

Signed: Date:
Designed by: KEVIN.CORBETT Date: 2/29/2024
Checked by: Date:
Approved by: Date:

The installed practices comply with applicable NRCS technical standards and specifications. The "redlined" construction plans (as-built drawings) reflect changes made during construction.

Construction Approved by: Date:
Job Approval Class

Date 2/29/2024
Designed KEVIN.CORBETT
Drawn
Checked
Approved

COVER SHEET

OWNER: LANDOWNER NAME
COUNTY: BROWN



Drawing Name
Water Trail - Phase 1 -
2-29-2024 Final.dwg

Date
2/29/2024

Sheet 1 of 8

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY	WL. CONSTRUCTION SPEC. OR JOB SHEET #	NOTES
FORESTRY PLAN				
Invasive brush removal (west)	ac.	61	Sheet 3	Variable density & methods
Invasive brush removal (east)	ac.	3	Sheet 3	Medium to high density, cut/pile/burn
Cut/pile/burn				Medium to high density, large diameter
Cut & slash				Low density (sparse)
Forestry mowing/mulching				High density, small diameter (no stump treatment)
Immediate stump treatment	ac.		Sheet 3	Over 1 inch diamater; within 2 hours of cutting
Seeding	ac.	64	Sheet 6	Woodland grass seed broadcasting and seed supply
Follow up foliar spray (2 years)	ac.	64(x2)	Sheet 3	Spot spray year 1 and year 2 after removal
Ash removal	ac.	15	Sheet 4	Variable density
Immediate stump treatment	ac.	15	Sheet 4	Variable density; no follow up foliar spraying
STREAM MAINTENANCE				
Stream impediment removal	#	13	Sheet 4, Spec 16	Organic material to Allouez yard waste
PRAIRIE PLANTINGS				
Osprey Point - site prep & seeding	ac.	9	Sheet 7	Minimum 1 site prep mow & 2 herbicide applications
De Pere North site prep & seeding	ac.	5	Sheet 7	Minimum 1 site prep mow & 2 herbicide applications
De Pere South site prep & seeding	ac.	2	Sheet 7	Minimum 1 site prep mow & 2 herbicide applications
Mulching - straw @ 1.5 tons/acre	ac.	16	Sheet 7	Dependent on prep & seeding methods
Establishment mowings (3)	ac.	16	Sheet 7	Mowing to occur 3 times during 1st growing season
Year 2 spot spray/spot mowing (2)	ac.	16 (x2)	Sheet 7	Maintenance during 2nd growing season, 2 visits

Quantities are estimated to the neat lines and grades of in-place materials shown on the construction plan unless otherwise stated. Truck yardage, loose fill, shrinkage, etc., must be calculated and compensated for by the contractor preparing a bid or constructing the project.

GENERAL CONSTRUCTION & INSPECTION NOTES

1. CONTACT COUNTY PLANNING AND ZONING DEPARTMENT, THE DEPARTMENT OF NATURAL RESOURCES (DNR) AND THE LOCAL TOWNSHIP FOR POSSIBLE PERMITS. ALL PERMITS SHALL BE ACQUIRED BEFORE CONSTRUCTION BEGINS.

2. ALL UNDERGROUND HAZARDS AND UTILITIES MUST BE INVESTIGATED PRIOR TO CONSTRUCTION. NOTIFICATION OF EFFECTED UTILITY COMPANIES IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTACT DIGGERS HOTLINE AT LEAST THREE DAYS PRIOR TO START OF CONSTRUCTION.

3. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH BROWN COUNTY LWCD PERSONNEL, THE CONTRACTOR, AND THE LANDOWNER PRIOR TO CONSTRUCTION START-UP.

4. THE CONTRACTOR AND/OR LANDOWNER SHALL NOTIFY BROWN COUNTY LWCD AT LEAST 5 DAYS PRIOR TO START-UP OF CONSTRUCTION.

5. BROWN COUNTY LWCD WILL PROVIDE CONSTRUCTION STAKING FOR THE PROJECT.

6. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE WISCONSIN NRCS CONSTRUCTION SPECIFICATIONS LISTED BELOW (AS APPLICABLE):

- Wisconsin Construction Specification 1 - Clearing
- Wisconsin Construction Specification 5 - Construction Site Pollution Control
- Wisconsin Construction Specification 7 - Mobilization and Demobilization
- Wisconsin Construction Specification 13 - Geotextiles
- Wisconsin Construction Specification 16 - Clearing and Snagging
- Wisconsin Construction Specification 24 - Construction Surveys
- Wisconsin Construction Specification 26 - Topsoiling
- Wisconsin Department of Natural Resources 1053 - Channel Erosion Mat

DESIGN NOTES

This project is designed according to the Wisconsin NRCS Standards: 342, 420, 314, 326

The project is intended to address wildlife habitat and resource concerns related to erosion and sediment transport. The project will address areas by installing NRCS and WDNR best management practices. The design is intended to improve water quality, reduce peak flows and prevent further erosion/sediment transport and improve wildlife habitat for multiple species.

The project is located in the East River watershed.

The native soils in the area are Oshkosh silty clay loam (Osa), with 0 to 3 percent slopes. The soils are considered poorly drained, have a low infiltration rate and fall under Hydrologic Soil Group D .

CONSTRUCTION APPROVAL

As-built plans must be prepared and all documentation will be provided from the inspectors to the Brown County Land & Water Conservation Department for construction approval. The inspector will request material specifications, documentation and samples as necessary for the approvals from the contractor.

GENERAL CONSTRUCTION & INSPECTION NOTES

TOPSOILING & VEGETATION - The inspector will check that the topsoil is adequate for a viable seedbed, verify that the proper species and quantities of seed are applied, and that the seed is planted at the proper time of the year and that mulch and/or erosion matting is applied. Seeding shall be completed on all disturbed areas. Seeding shall be completed as soon as practicable. Seed mix shall conform to the plans and specifications. The inspector will verify seed used and document when sufficient vegetative cover has established.

EROSION CONTROL MATTING - The grassed waterway(s) and other areas outlined on the plans shall have double netted straw erosion control matting installed immediately after seeding. The matting shall conform to WDNR 1053, Class I, Type B. The matting will hold the soil and seed in place until it is established. Netting used shall be biodegradable and shall be installed per manufacturers specifications. The inspector will verify material type and document proper installation. The Landowner shall specify if steel or biodegradable staples are to be used.

Date2/29/2024

DesignedKEVIN CORBETT

Drawn

Checked

Approved

CONSTRUCTION NOTES, INSPECTION PLAN & ESTIMATED QUANTITIES

OWNER: LANDOWNER NAMECOUNTY: BROWN

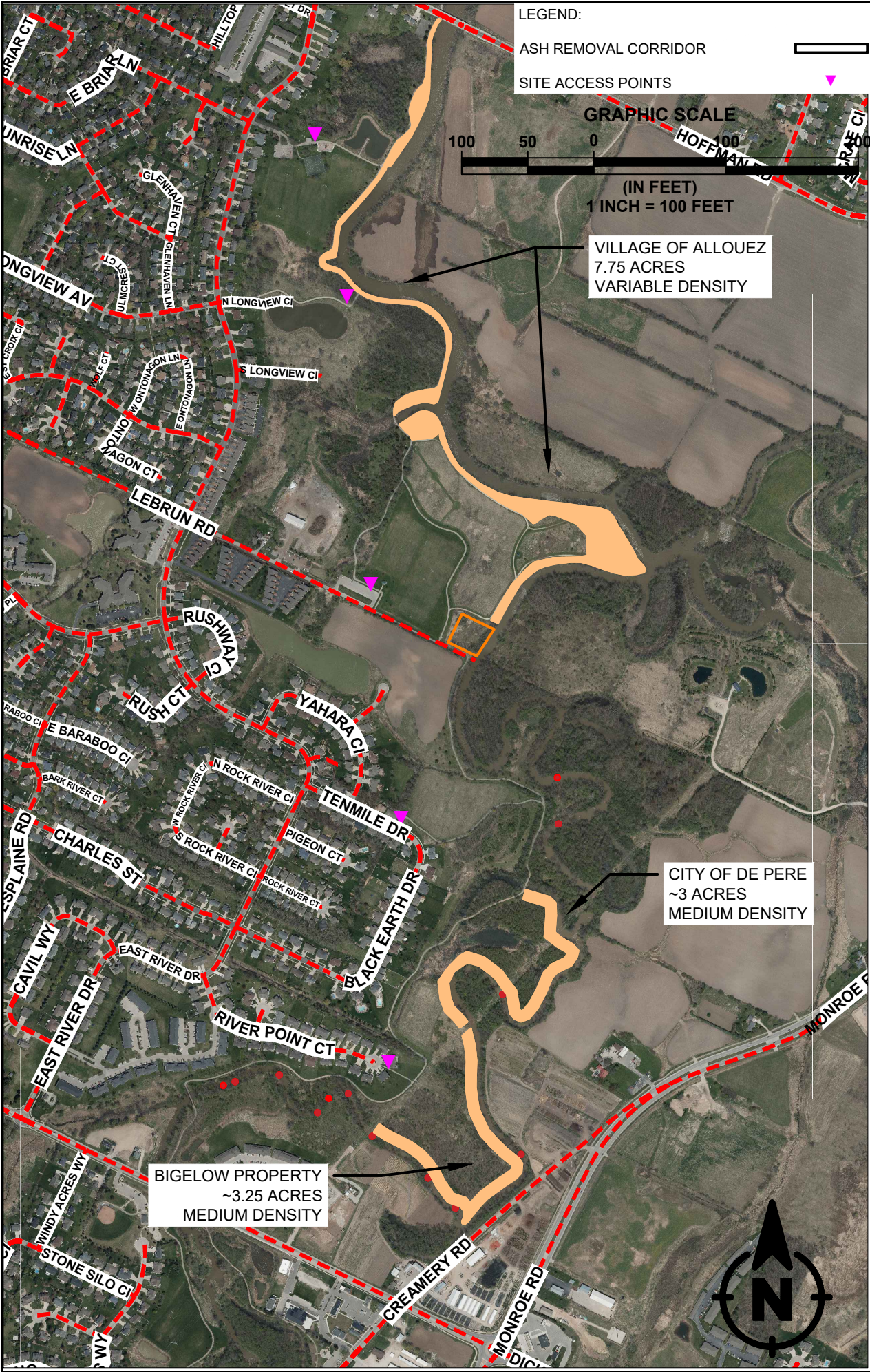
Brown County

LAND & WATER CONSERVATION DEPARTMENT

Drawing NameWater Trail - Phase 1 - 2-29-2024 Final.dwg

Date2/29/2024

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- NOTES:
1. BROWN COUNTY LWCD WILL STAKE THE PROJECT FOR THE CONTRACTOR. PLEASE NOTIFY THE FIELD TECHNICIAN WITH STAKING REQUIREMENTS 5 DAYS PRIOR TO INTENDED START DATE.
 2. BROWN COUNTY LWCD WILL PLACE CONTROL POINTS AND BENCHMARKS AS REQUESTED BY THE CONTRACTOR.
 3. UTILITIES SHOWN ARE FOR REFERENCE ONLY. COMPLETE LOCATES FOR ALL WORK CLOSE TO ROAD RIGHT-OF-WAY OR UNDERGROUND UTILITIES. OBSERVE CAUTION NEAR THESE AREAS.
 4. GRADE SITE PER CROSS SECTIONS AND DETAILS IN THE PLAN.
 5. SEED DISTURBED AREAS IMMEDIATELY FOLLOWING COMPLETION OF GRADING.
 6. INSTALL EROSION CONTROL NETTING, IN AREAS NOTED IN DETAILS, IMMEDIATELY FOLLOWING COMPLETION OF SEEDING.

- FOREST MANAGEMENT NOTES:
- NOTIFY BROWN COUNTY LWCD AT LEAST 2 DAYS BEFORE COMMENCING ANY FORESTRY WORK. WORK MUST BE COMPLETED DURING THE WORK WEEK WHILE BROWN COUNTY STAFF IS AVAILABLE. ANY WEEKEND WORK MUST BE APPROVED BY BROWN COUNTY LWCD.
 - FORESTRY WORK SHALL BE COMPLETED IN SUCH A WAY NOT TO DAMAGE CROPLAND, MAINTAINED PARK TURF AREAS, OR PAVED WALKING TRAILS. ACCESS TO THE SITE SHALL COME FROM PUBLIC ENTRANCES, AND SHOULD NOT ENTER ANY PRIVATE PROPERTY BOUNDARY BESIDES PRIVATE LANDOWNER MARKED ON MAP. SITE ACCESS POINTS ARE IDENTIFIED ON MAP.
 - ALL ASH TO BE REMOVED FROM CORRIDOR. NO SALVAGEABLE TIMBER IS EXPECTED TO COME FROM THIS SITE. IF ANY ASH IS DETERMINED MARKETABLE TIMBER, WORK WITH BROWN COUNTY LWCD TO ADJUST REMOVAL COSTS. SALES OF HARVESTED TIMBER SHOULD REDUCE COST OF PROJECT TO BROWN COUNTY LWCD.
 - HEAVY EQUIPMENT MUST STAY OFF STREAM BANK AREAS, AND 5 FEET AWAY FROM TOP OF RIVER BANK. HAND TOOLS MAY BE REQUIRED TO FELL ASH IN THESE AREAS.
 - ANY ASH THAT IS FELLED INTO RIVER MUST BE RETRIEVED/REMOVED.
 - FORESTRY CONTRACTOR TO WORK WITH APPROVED AQUATIC HERBICIDE APPLICATION CONTRACTOR TO COMPLETE STUMP TREATMENT PER NOTES BELOW. AQUATIC APPROVED HERBICIDE SUCH AS GARLON 3A OR RODEO TO BE USED FOR STUMP TREATMENT. MUCH OF PROJECT AREA IS MAPPED WETLANDS AND ALONG RIPARIAN CORRIDOR. PERMITS FOR HERBICIDE APPLICATION WILL BE REQUIRED THROUGH WISCONSIN DNR.

ASH TREE REMOVAL - THIS IS A STRAIGHT-FORWARD PROCESS OF USING A COMBINATION MECHANICAL CUTTING AND HAND CUTTING TO REMOVE ASH IN AREAS SHOWN AND DESCRIBED IN THE PLAN. UNDER NO CIRCUMSTANCES SHOULD EQUIPMENT BE USED IN AREAS THAT WILL CAUSE STREAMBANK EROSION. TREES SHOULD NOT BE UPROOTED UNDER ANY CIRCUMSTANCE. EQUIPMENT SHOULD BE SELECTED TO PREVENT DAMAGE TO EAST RIVER TRAIL. MATERIAL FROM FELLED ASH TREES TO BE DISPOSED OF OFF OF SITE. SMALLER DEBRIS FROM TREE TOPS MAY BE BURNED WITH INVASIVE BRUSH BURN PILES.

ALL ASH TREES IN PROJECT AREA OVER 6 INCH DIAMETER TO BE FELLED, STUMP TREATED, AND REMOVED AND DISPOSED OF. DENSITY OF MATURE ASH TREES IS VARIABLE ALONG PROJECT CORRIDOR. TREES SHOULD BE CUT TO AS CLOSE TO GROUND LEVEL AS POSSIBLE. REMAINING STUMPS NOT TO BE OVER 6 INCHES IN HEIGHT.

HERBICIDE APPLICATION - TREE STUMPS TO BE TREATED WITH HERBICIDE VIA WICKING METHOD WITHIN TWO HOURS OF BEING CUT. GARLON 3A OR AN EQUIVALENT IS SUGGESTED FOR STUMP TREATMENT AT A RATE OF ONE PART GARLON 3A TO THREE PARTS WATER. HERBICIDE SHALL BE APPLIED TO STUMPS THROUGH LOW VOLUME METHODS SUCH AS PAINTBRUSH OR DAUBER APPLICATION. BLUE DYE MUST BE ADDED TO BE ABLE TO OBSERVE AND LOCATE TREATED STUMPS. LEAVE EXISTING DESIRABLE SPECIES LIKE DOGWOODS, NANNYBERRY, OAKS, AND OTHER FOOD PRODUCING TREES AND SHRUBS AS MUCH AS POSSIBLE.

CONTRACTOR MUST CLOSE SECTIONS OF THE EAST RIVER TRAIL WHILE WORKING AND PROVIDE PROPER SIGNAGE INDICATING WORK IS UNDERWAY.

BROWN COUNTY LWCD CAN FLAG PROJECT AREAS AS REQUESTED BY CONTRACTOR.

EAST RIVER TRAIL MUST BE CLEANED OF DEBRIS AFTER CONSTRUCTION IS COMPLETE.

EQUIPMENT MUST BE CLEANED AFTER PROJECT COMPLETION TO REDUCE SPREAD OF INVASIVE SPECIES.

IF ASH IS TO BE STAGED BEFORE CHIPPING/HAULING, WORK WITH BROWN COUNTY LWCD TO IDENTIFY ACCEPTABLE STAGING AREAS.

Date 2/29/2024	Designed KEVIN CORBETT	Drawn	Checked	Approved
PLAN VIEW				
OWNER: LANDOWNER NAME				
COUNTY: BROWN				
Drawing Name WaterTrail - Phase 1 - 2-29-2024 Final.dwg				
Date 2/29/2024				
Sheet 4 of 8				



- NOTES:
1. BROWN COUNTY LWCD WILL STAKE THE PROJECT FOR THE CONTRACTOR. PLEASE NOTIFY THE FIELD TECHNICIAN WITH STAKING REQUIREMENTS 5 DAYS PRIOR TO INTENDED START DATE.
 2. COMPLETE LOCATES FOR ALL WORK CLOSE TO ROAD RIGHT-OF-WAY OR UNDERGROUND UTILITIES. OBSERVE CAUTION NEAR THESE AREAS.
 3. SEED DISTURBED AREAS IMMEDIATELY FOLLOWING COMPLETION OF IMPEDIMENT REMOVAL.
 4. INSTALL EROSION CONTROL NETTING, IN AREAS NOTED IN DETAILS, IMMEDIATELY FOLLOWING ANY DISTURBANCE OF STREAMBANK.
 5. IMPEDIMENTS NUMBERED #1 - #13 FROM SOUTH TO NORTH.

NARRATIVE FOR STREAM CLEARING (SNAGS/DEBRIS REMOVAL)

- IMPEDIMENTS SHOULD BE REMOVED FROM THE WEST SHORE OF THE EAST RIVER, ON PUBLIC MUNICIPALITY LAND, AND FROM THE BIGELOW PROPERTY.
- ALL WOODY DEBRIS THAT RESTRICTS THE MOVEMENT OF SMALL WATERCRAFT, KAYAKS, AND CANOES SHOULD BE REMOVED FROM THE WATER AND PLACED OUTSIDE OF THE FLOODWAY TO ALLOW.
- BED OF RIVER SHOULD NOT BE DISTURBED UNDER ANY CIRCUMSTANCE. MATERIAL TO BE REMOVED FROM SURFACE WATER.
- DEBRIS SHOULD BE REMOVED USING THE LEAST INVASIVE METHODS POSSIBLE. THESE METHODS MAY INCLUDE CABLING, GRAPPLING, LONG ARM MACHINARY, AND/OR A COMBINATION OF HAND TOOLS/CHAINSAWS/BRUSH CUTTERS, ETC. STREAMBANK INTEGRITY IS TOP PRIORITY. ANY FALLEN TREES WITH ROOTWADS ANCHORED IN STREAMBANK SHOULD BE CUT SO ROOT WAD REMAINS INTACT IN STREAMBANK. AVOID REMOVING ROOT WADS IN STREAMBANK, AS IT WILL COMPROMISE BANK INTEGRITY AND CREATE UNDESIRABLE SOIL EROSION.
- REMOVED IMPEDIMENT ORGANIC MATERIAL IS TO BE HAULED TO AND DISPOSED OF AT ALLOUEZ YARD WASTE DISPOSAL SITE (LOCATED WITHIN PROJECT BOUNDARIES).
- ANY INORGANIC MATERIAL SUCH AS GARBAGE MUST BE LANDFILLED OFF OF SITE.
- AREAS OF STREAM IMPEDIMENTS ARE MARKED WITH RED CIRCLES ON MAP. IF ADDITIONAL IMPEDIMENTS ARE LOCATED, PLEASE CONTACT BROWN COUNTY LWCD STAFF PRIOR TO REMOVAL FOR APPROVAL.

EXAMPLE IMPEDIMENT PHOTO:



Date	2/29/2024
Designed	KEVIN CORBETT
Drawn	
Checked	
Approved	

PLAN VIEW

OWNER: LANDOWNER NAME

COUNTY: BROWN

Brown County

LAND & WATER CONSERVATION DEPARTMENT

Drawing Name
WaterTrail - Phase 1 -
2-29-2024 Final.dwg

Date
2/29/2024

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SEEDING PLAN (WOODLAND)

SEEDING DATES

- SEEDING TO TAKE PLACE AFTER FROST UNTIL JULY 1ST OR AFTER SEPTEMBER 1ST UNTIL SNOW COVER.
- SEEDING SHALL TAKE PLACE FOLLOWING COMPLETION OF CONSTRUCTION.
- IF CONSTRUCTION OCCURS OUTSIDE OF PROPER SEEDING WINDOW, CONTRACTOR TO RETURN TO SEED AREAS DURING.
- DISCUSS WITH BROWN COUNTY LWCD IF CONSTRUCTION OCCURS OUTSIDE SEEDING WINDOW.

MATERIALS

- ALL SEED SHALL BE FREE FROM WEEDS AND OTHER CONTAMINANTS.
- ALL SEED SHALL BE STORED IN A COOL DRY PLACE UNTIL USAGE.
- NO FERTILIZER OR LIME IS ANTICIPATED TO BE REQUIRED.

SEEDBED PREPARATION

- THE FORESTRY CONTRACTOR SHALL BE RESPONSIBLE FOR CREATING A SEEDBED SUITABLE FOR PLANT GROWTH.
- DISTURBED AREAS SHALL BE BACK-DRAGGED BY A TRACTOR OR EQUIVALENT METHOD TO CREATE A SMOOTH SURFACE FREE FROM DEPRESSIONS.

SEEDING

- SEEDING TO BE COMPLETED BY THE CONTRACTOR OR THEIR SUB IMMEDIATELY FOLLOWING COMPLETION OF CONSTRUCTION.
- BROADCAST USING HAND HELD, WALK BEHIND OR FOUR WHEELER MOUNTED EQUIPMENT MAY BE USED IF AREA IS TOO WET.

MULCHING:

- MULCHING IS DISTURBANCE DEPENDENT AND ONLY REQUIRED FOR AREAS WHERE SOIL EXPOSED BY USE OF HEAVY EQUIPMENT.
- MULCHING SHALL BE DONE IMMEDIATELY AFTER SEEDING.
- MULCHING MATERIAL SHALL BE FREE OF DISEASE, PESTICIDES, CHEMICALS, NOXIOUS WEED SEEDS AND OTHER PESTS/PATHOGENS.
- MULCHING TO BE CLEAN STRAW AT A RATE OF 1 TON PER ACRE.
- ANY DISTURBANCES NEAR STREAM BANK SHALL BE STABILIZED WITH EXCELSIOR WOOD FIBER BLANKET. STREAM BANK DISTURBANCE SHOULD BE AVOIDED AND ANY OCCURRENCES ARE CONTRACTORS RESPONSIBILITY TO STABILIZE.

WOODLAND SEED MIX:

- SEED MIX SHALL BE SHOOTING STAR SSNS WOODLAND GRASS MIX OR APPROVED EQUAL CERTIFIED SEED MIX.
- SEEDING RATE TO AVERAGE 4.5 LBS/ACRE. SEED MAY BE MIXED WITH A INERT CARRIER TO ENHANCE DISTRIBUTION.
- SEED SHALL BE FREE FROM NOXIOUS WEEDS.
- WOODLAND SEEDING NOT PLANNED TO BE UNIFORM, DISTURBED EXPOSED SOIL TO BE SEEDED AS HIGH AS 7.5 LBS/ACRE, WHILE UNDISTURBED AREAS MAY BE SEEDED AT A LOWER RATE.
- GOAL IS TO ENHANCE WOODLAND CORRIDOR AND SUPPLY A NATIVE SEED SOURCE. SEED VIABILITY WILL VARY THROUGHOUT CORRIDOR. CONTRACTOR WILL HAVE DISCRETION TO MAXIMIZE GERMINATION POTENTIAL.

SEED MIX	AREA	RATE	TOTAL
WOODLAND MIX	64 ACRES	4.5 LBS/ACRE	288 LBS

Common Name	Scientific Name	% of Mix	Seeds/ft ²	Total
Grasses, Sedges & Rushes				
Plains Oval Sedge	Carex brevior	6.67%	5.3	20.000 PLS lb
Wood Gray Sedge	Carex grisea	2.67%	0.7	8.000 PLS lb
Brown Fox Sedge	Carex vulpinoidea	3.33%	9.2	10.000 PLS lb
Canada Wild Rye	Elymus canadensis	16.67%	2.4	50.000 PLS lb
Bottlebrush Grass	Elymus hystrix	13.33%	1.3	40.000 PLS lb
Riverbank Wild Rye	Elymus riparius	16.67%	1.3	50.000 PLS lb
Silky Wild Rye	Elymus villosus	6.67%	1.0	20.000 PLS lb
Virginia Wild Rye	Elymus virginicus	33.33%	3.9	100.000 PLS lb
Common Rush	Juncus effusus	0.67%	18.4	2.000 PLS lb

CONTRACTOR IS RESPONSIBLE TO SEED AND REPAIR ANY MANICURED AREAS, SUCH AS TURF, DISTURBED OUTSIDE OF FOREST BOUNDARIES BACK TO THEIR PRE-DISTURBED STATE

Date2/29/2024

DesignedKEVIN CORBETT

Drawn

Checked

Approved

SEEDING PLAN

OWNER: LANDOWNER NAME

COUNTY: BROWN



Drawing Name

WaterTrail - Phase 1 - 2-29-2024 Final.dwg

Date

2/29/2024

Sheet

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PRAIRIE PLANTINGS - SEED MIXES SHALL BE OF NATIVE VARIETIES AND CONTAIN ABOUT 30-40 SPECIES TO CREATE A HABITAT OF FORBS AND GRASSES THAT WILL BLOOM AND PROVIDE FOOD AND COVER THROUGHOUT THE YEAR TO INCLUDE LATE SPRING, MID/LATE SUMMER AND FALL SEASONS. SUGGESTED SEED MIXES ARE SHOWN ON SEEDING PAGE, BUT SPECIES MAY BE SUBSTITUTED BASED UPON AVAILABILITY. SUBSTITUTIONS SHOULD BE APPROVED BY BC LWCD. **SITE WILL REQUIRE 2-3 MOWINGS DURING ESTABLISHMENT YEAR FOR PRAIRIE SEEDINGS. THE THIRD MOWING MAY BE REQUIRED SECOND GROWING SEASON DEPENDING UPON TIME OF SEEDING & FIELD TECHNICIAN DETERMINATION**

HERBICIDE TREATMENTS - HERBICIDE MUST BE TRANSPORTED AND STORED IN APPROVED CONTAINERS. SPILLS MUST BE REPORTED TO WDNR SPILLS HOTLINE AND CLEANED UP TO REGULATORY SATISFACTION IF ONE OCCURS. APPLICATIONS MUST BE CONDUCTED BY AN APPROVED LICENSED AND CERTIFIED CHEMICAL AND PESTICIDE APPLICATOR. APPLY ACCORDINGLY TO DESIGNATED AREAS SHOWN IN THE PLAN TO TREAT ALL SPECIES IN AREA FOR SITE PREPARATION.TREATMENT AREAS ARE SHOWN ON PLAN DRAWINGS AND ON THE QUANTITIES PAGE.

PRAIRIE SITE PREP & SEEDING - ALL PRAIRIE AREAS ARE CURRENTLY 'FALLOW FIELD'. AREAS SHALL BE PREPARED THROUGH A COMBINATION OF MOWING, HERBICIDE APPLICATIONS, AND TILLAGE. PRESCRIBED FIRE WILL NOT BE FEASIBLE FOR SITE PREPARATION METHODS. AREAS TO FIRST BE MOWED PRIOR TO ANY HERBICIDE APPLICATION. THE FIRST HERBICIDE APPLICATION CAN OCCUR AFTER REGROWTH REACHES A HEIGHT OF 10-12 INCHES. A SECOND HERBICIDE APPLICATION SHOULD FOLLOW 6-8 WEEKS AFTER FIRST APPLICATION. ADDITIONAL SITE PREPARATION WILL DEPEND ON CONTRACTOR'S SEEDING METHODS. SITE PREPARATION EXPECTED TO TAKE A FULL GROWING SEASON MINIMUM.

BROADCAST SEEDING WILL REQUIRE TILLAGE TO REMOVE DEAD VEGETATION AND CREATE AN OPEN SEED BED TO ALLOW FOR PROPER SEED TO SOIL CONTACT. IF AREAS ARE TILLED, AN ADDITIONAL HERBICIDE APPLICATION WILL OCCUR AFTER TILLAGE AND BEFORE SEEDING TO CONTROL ANY WEED SEEDS THAT GERMINATE FROM THE TILLAGE DISTURBANCE. TILLAGE SHOULD BE TIMED SO THAT AREAS ARE VEGETATED OVER WINTER. BROADCAST SEEDING WILL REQUIRE NURSE CROPS AS WELL AS MULCHING. MULCH TO BE CLEAN STRAW, APPLIED AT A RATE OF 1.5 TONS/ACRE. OATS TO BE SEEDDED AS NURSE CROP IN SPRING, SEEDING AT A RATE OF 32LBS/ACRE. OATS NOT TO BE USED AS COVER IF SEEDING OCCURS AFTER OCTOBER 1ST. ANNUAL RYE TO BE SEEDDED AS NURSE CROP IF SEEDING OCCURS IN FALL, AT A RATE OF 15 LBS/ACRE.

DRILL SEEDING WILL REQUIRE DEAD VEGETATION TO BE REDUCED ENOUGH THAT SEEDS ARE NOT OBSTRUCTED WHEN DRILLED. AREAS CAN BE MOWED, OR MOWED, TILLED, AND CULTIPACKED PRIOR TO SEEDING TO INCORPORATE DEAD THATCH INTO SOIL AND CREATE A FIRM SEED BED.

SEEDING TO OCCUR IN SPRING, AFTER FROST AND BEFORE JULY 1ST, OR DURING FALL AFTER SEPTEMBER 1ST UNTIL SNOW COVER.

PROPOSALS SHOULD THOROUGHLY DESCRIBE SITE PREPARATION METHODS BEYOND THE MINIMUM (1) MOWING AND (2) HERBICIDE APPLICATIONS.

PRAIRIE MAINTENANCE/MANAGEMENT - SPOT SPRAYING AND SPOT MOWING WILL BOTH BE NECESSARY IN THE SECOND GROWING SEASON. SPOT SPRAYING SHOULD AIM TO CONTROL ALL PERENNIAL NOXIOUS WEEDS IN PRAIRIE. ANNUAL AND BIENNIAL WEEDS SHOULD BE CONTROLLED BY PROPERLY TIMED MOWING/CHOPPING. SPOT SPRAYING SHOULD TAKE PLACE BEFORE JULY 15TH OR AFTER SEPTEMBER 1ST. SPOT MOWING CAN BE DONE WITH A TRACTOR/FLAIL MOWER, OR WITH WEED WHIPS/BRUSH CUTTER. SPOT MOWING SHOULD TAKE PLACE BETWEEN JULY 15TH AND SEPTEMBER 1ST. SITES TO BE MANAGED (2) TIMES THROUGHOUT THE SECOND GROWING SEASON.

***AFTER YEAR TWO, PROJECT AREAS SHOULD BE A MINIMUM OF 70 PERCENT NATIVE COVER. LACK OF COVER DURING YEAR THREE WILL REQUIRE SUPPLEMENTAL SEEDING, PROVIDED BY THE CONTRACTOR. BROWN COUNTY LWCD WILL INSPECT PROJECT AREAS MID-SUMMER DURING THE THIRD GROWING SEASON TO ASSESS VEGETATION.



Date	2/29/2024
Designed	KEVIN CORBETT
Drawn	
Checked	
Approved	

SEEDING PLAN

OWNER: LANDOWNER NAME

COUNTY: BROWN



Drawing Name
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2-29-2024 Final.dwg

Date
2/29/2024

SEEDING PLAN (PRAIRIE)

SEEDING DATES

- SEEDING TO TAKE PLACE AFTER FROST UNTIL JULY 1ST OR AFTER SEPTEMBER 1ST UNTIL SNOW COVER.
- SPECIES OF NURSE CROP DEPENDENT ON SEEDING DATE.

MATERIALS

- ALL SEED SHALL BE FREE FROM NOXIOUS WEEDS AND OTHER CONTAMINANTS.
- SEED MIX SHALL BE SHOOTING STAR SSNS MESIC PRAIRIE MIX OR APPROVED EQUAL CERTIFIED SEED MIX.
- ALL SEED SHALL BE STORED IN A COOL DRY PLACE UNTIL USAGE.
- NO FERTILIZER OR LIME IS ANTICIPATED TO BE REQUIRED.

SEEDBED PREPARATION

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CREATING A SEEDBED SUITABLE FOR NATIVE PLANT GROWTH.

SEEDING

- SEEDING TO BE COMPLETED BY THE CONTRACTOR OR THEIR SUB IMMEDIATELY FOLLOWING COMPLETION OF CONSTRUCTION.
- BROADCAST AND DRILL SEEDING ARE BOTH ACCEPTABLE METHODS, DEPENDENT UPON CONTRACTOR PROPOSAL.
- AREAS TO BE CULTIPACKED FOLLOWING BROADCAST SEEDING.
- PRAIRIE SEED TO BE APPLIED AT A RATE OF 10 LBS/ACRE. SEED MAY BE MIXED WITH INERT CARRIER TO ENHANCE DISTRIBUTION.

MULCHING

- MULCHING IS DEPENDENT ON SITE PREPARATION AND SEEDING METHODS
- MULCHING SHALL BE DONE IMMEDIATELY AFTER BROADCAST SEEDING.
- MULCHING WILL BE REQUIRED FOR DRILL SEEDING IF AREA WAS TILLED.
- MULCHING MATERIAL SHALL CLEAN WHEAT STRAW, FREE OF DISEASE, PESTICIDES, CHEMICALS, NOXIOUS WEED SEEDS AND OTHER PESTS/PATHOGENS.
- MULCHING APPLIED AT A RATE OF 1.5 TONS PER ACRE.

PRAIRIE SEED MIX:

- SEEDING RATE SHALL BE 10.0 LBS/ACRE. SEED MAY BE MIXED WITH A INERT CARRIER TO ENHANCE DISTRIBUTION.

SEED MIX	AREA	RATE	TOTAL
PRAIRIE MIX	16 ACRES	10 LBS/ACRE	160 LBS
NURSE CROP	16 ACRES	SEASONAL	CONSULT LWCD

- QUANTITY IS TOTAL OF ALL PRAIRIE AREAS COMBINED
- RATE OF OAT COVER CROP TO BE 32 LBS/ACRE IN SPRING AND INCREASED TO 64 LBS/ACRE FOR FALL SEEDING
- FALL SEEDED OATS MUST BE PLANTED BY OCTOBER 1ST
- OATS TO BE USED IN ALL SPRING SEEDINGS
- OATS MAY BE USED IN FALL AT A HIGHER RATE OF 50 LBS/ACRE FROM SEPTEMBER 1ST - OCTOBER 1ST
- ALTERNATIVES SUCH AS ANNUAL RYE OR WINTER WHEAT MAY BE USED AFTER SEPTEMBER 1ST AND ARE REQUIRED AFTER OCTOBER 1ST.



Description: SSNS Mesic Prairie Mix
Seeding Rate: 10 lb/acre (50 seeds/square foot)
Notes: Soil - Wet Mesic to Dry Mesic, Sun - Full

Common Name	Scientific Name	% of Mix	Seeds/ft²	Total
Grasses				
Slender Wheatgrass	Agropyron trachycaulum	5.00%	1.3	0.50 PLS lb
Big Bluestem	Andropogon gerardii	15.00%	5.5	1.50 PLS lb
Sidecats Grama	Bouteloua curtipendula	12.00%	2.6	1.20 PLS lb
Prairie Brome	Bromus kalmii	1.00%	0.3	0.10 PLS lb
Canada Wild Rye	Elymus canadensis	8.00%	1.5	0.80 PLS lb
Switchgrass	Panicum virgatum	4.00%	2.1	0.40 PLS lb
Little Bluestem	Schizachyrium scoparium	16.00%	8.8	1.60 PLS lb
Indiangrass	Sorghastrum nutans	18.00%	7.9	1.80 PLS lb
Prairie Dropseed	Sporobolus heterolepis	1.00%	0.6	0.10 PLS lb
Forbs				
Anise Hyssop	Agastache foeniculum	0.40%	1.3	0.04 PLS lb
Common Milkweed	Asclepias syriaca	1.20%	0.2	0.12 PLS lb
Smooth Blue Aster	Aster laevis	0.80%	1.6	0.08 PLS lb
New England Aster	Aster novae-angliae	0.40%	1.0	0.04 PLS lb
Canada Milk Vetch	Astragalus canadensis	1.00%	0.6	0.10 PLS lb
White Wild Indigo	Baptisia alba	0.30%	0.0	0.03 PLS lb
Partridge Pea	Chamaecrista fasciculata	3.20%	0.3	0.32 PLS lb
White Prairie Clover	Dalea candidum	1.20%	0.8	0.12 PLS lb
Purple Prairie Clover	Dalea purpurea	2.00%	1.3	0.20 PLS lb
Showy Tick Trefoil	Desmodium canadense	0.80%	0.2	0.08 PLS lb
Rattlesnake Master	Eryngium yuccifolium	0.20%	0.1	0.02 PLS lb
Ox-eye Sunflower	Heliopeis helianthoides	0.80%	0.2	0.08 PLS lb
Meadow Blazingstar	Liatris ligulistylis	0.40%	0.1	0.04 PLS lb
Prairie Blazingstar	Liatris pycnostachya	1.20%	0.5	0.12 PLS lb
Wild Bergamot	Monarda fistulosa	0.40%	1.0	0.04 PLS lb
Mountain Mint	Pycnanthemum virginianum	0.20%	1.6	0.02 PLS lb
Yellow Coneflower	Ratibida pinnata	0.80%	0.9	0.08 PLS lb
Black-eyed Susan	Rudbeckia hirta	0.80%	2.7	0.08 PLS lb
Compass Plant	Silphium laciniatum	1.00%	0.0	0.10 PLS lb
Stiff Goldenrod	Solidago rigida	0.40%	0.6	0.04 PLS lb
Purple Meadow Rue	Thalictrum dasycarpum	0.20%	0.1	0.02 PLS lb
Hoary Vervain	Verbena stricta	0.60%	0.6	0.06 PLS lb
Culver's Root	Veronicastrum virginicum	0.10%	2.9	0.01 PLS lb
Golden Alexanders	Zizia aurea	1.60%	0.6	0.16 PLS lb

Request a price quote for this mix by contacting info@shootingstarnativeseed.com or (507) 498-3944. Substitutions may be necessary based on availability at the time of order.

Date2/29/2024

DesignedKEVIN CORBETT

Drawn

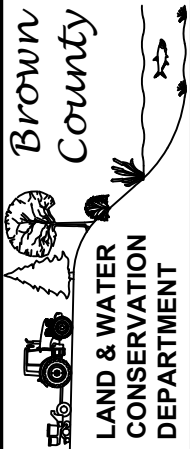
Checked

Approved

SEEDING PLAN

OWNER: LANDOWNER NAME

COUNTY: BROWN



Drawing Name
WaterTrail - Phase 1 -
2-29-2024 Final.dwg

Date
2/29/2024