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# STATEMENT OF WORK

ESTABLISH AND MAINTAIN NATIVE PRAIRIE VEGETATION AT
WEST NEWTON BENEFICIAL USE SITE NEAR
KELLOGG, MN

PART 1 GENERAL

1.1 BACKGROUND AND SCOPE

This section includes the furnishing and planting of native prairie grasses and forbs as shown and specified. The project area is approximately 131 acres and is located approximately three miles ESE of Kellogg, MN on former farmland now owned by the Army Corps of Engineers. Approximately 1.3 million cubic yards of dredged coarse-grained sands have been hydraulically placed on the site to depths of up to 20 feet and then contoured to resemble the Weaver Dunes preserve located immediately to the south. The Weaver Dunes preserve is owned and managed by the Nature Conservancy.

The dredged materials were taken from a temporary placement site used to store sand removed from the navigation channel of the Mississippi River. The placement site is located on an island adjacent to the main channel of the Mississippi, a short distance downstream of the project area. Prior to placing these materials, up to 2.5 feet of fine-grained loamy sand topsoil was stripped from the project area and stockpiled. Site visits in November 2002 and the spring/summer 2003 were used to inventory existing species on the site as well as to document areas with a high percentage of native species vs. areas dominated by non-native species such as smooth brome and quack grass. The project area was then delineated to exclude areas dominated by non-natives from topsoil stripping. The list of species documented on the site prior to construction may be incomplete as many of the species that could occur on the site were not apparent or unidentifiable at the time of the site visits. Species that were positively identified and that are expected to be a part of the seed bank in the topsoil are:

| Common Name | Latin Name | | Common Name | Latin Name |
|---|---|---|---|---|
| 4-point evening primrose | *Oenthera rhombipetla* | | Goat's beard | *Tragopogon dubius* |
| Big bluestem | *Andropogon gerardii* | | Golden corydalis | *Corydalis aurea?* |
| Black-eyed Susan | *Rudbeckia hirta* | | Green ash | *Fraxinus pennsylvanica* |
| Blue-eyed grass | *Sisyrinchium campestre* | | Hairy puccoon | *Lithospermum caroliniense* |
| Brome | *Bromus inermis* | | Hairy vetch | *Vicia villosa* |
| Canada toadflax | *Nuttallanthus canadensis* | | Heath aster | *Aster ericoides* |
| Canada wild rye | *Elymus canadensis* | | Hedge bindweed | *Convovulus sepium* |
| Canadian goldenrod | *Solidago canadensis* | | Hoary vervain | *Verbena stricta* |
| Common evening primrose | *Oenthera biennis* | | Horsemint | *Monarda punctata* |
| Common milkweed | *Asclepias syriaca* | | Horseweed | *Conyza canadensis* |
| Common ragweed | *Ambrosia artemisiifolia* | | Indian grass | *Sorghastrum nutans* |
| Cut-leaved evening primrose | *Oenthera lancineata* | | Indian hemp | *Apocynum cannabinum* |
| Daisy fleabane | *Erigeron strigosus* | | Jack pine | *Pinus banksiana* |
| Flowering spurge | *Euphorbia corollata* | | Junegrass | *Koeleria macrantha* |
| Little bluestem | *Andropogon scoparius* | | Sand dropseed | *Sporobolus cryptandrus* |
| Mullen | *Verbascum thapsus* | | Sand pea | *Chamaecrista fasciculata* |
| Panic grass | *Panicum leibergii or oligosanthes* | | Sandbur | *Cenchrus longispinus* |
| Pearly everlasting | *Anaphalis margaritacea* | | Scotch pine | *Pinus sylvestris* |
| Peppergrass | *Lepidium virginicum* | | Sleepy catchfly | *Silene antirrhina?* |
| Poison ivy | *Toxicodendron radicans* | | Smooth sumac | *Rhus glabra* |
| Prairie cinquefoil | *Potentilla arguta* | | Spiderwort | *Tradescantia ohiensis* |
| Prairie 4 O’ Clock | *Mirabilis nyctaginea* | | Stiff goldenrod | *Solidago rigida* |
| Quack grass | *Agropyron repens* | | Thimbleweed | *Anenome cylindrica* |
| Red cedar | *Juniperus virginiana* | | Thistle sp. | *Cirsium sp.* |
| Red pine | *Pinus resinosa* | | Triple-awned grass | *Aristida tuberculosa* |
| Red-osier dogwood | *Cornus stolonifera* | | Venus' looking glass | *Triodanis perfoliata* |
| River grape | *Vitus riparia* | | Western sunflower | *Helianthus occidentalis* |
| Rock cress | *Arabis lyrata* | | Whorled milkweed | *Asclepias verticillata* |
| Rough blazing star | *Liatris aspera* | | Wild rose | *Rosa carolina?* |
| Rough -fruited cinquefoil | *Potentilla recta* | | Yarrow | *Achillea millefolium* |
| Round headed bush clover | *Lespedeza capitata* | | Yellow foxtail | *Setaria glauca* |

The total area to be planted is approximately 130.77 acres. Within that area, varying degrees of disturbance occurred. Reference Attachment 1 for a detailed drawing of the site.

Along the west and south boundaries in the area designated on the drawing as *road ditch area*, approximately 6.26 acres were undisturbed by the project. Vegetation on this area consists primarily of cool season non-native grasses such as quack and brome and lesser amounts of native sand prairie species. The soil profile in this section has not been changed. This area is to receive seed mix 1.

The bermed area on the eastern edge of the project is designated for future storage of dredged materials. Up to 2.5 feet of topsoil was stripped from an area of approximately 6 acres on the north end; and this area was used as a settling basin for carriage water prior to it being discharged to the river. As a result, anywhere from 2 to 6 inches of silt accumulated over the native fine-grained sand subsoil that remained after the topsoil was stripped. Little if any of the coarse-grained dredged sand was deposited within this area. Additional areas within the berm were disturbed as a result of the project but topsoil was not stripped and the soil stratigraphy remains relatively intact. Disturbed areas within the berm comprise approximately 20.44 acres and will be seeded with the abbreviated seed mix 2. A portion of the southern end of the future storage area is undisturbed and will not be seeded under this contract.

On the remainder of the site, up to 2.5 feet of topsoil was stripped and seed mix 1 is to be planted. Dredged materials were placed to varying depths and topsoil was replaced over the dredge materials to a depth of approximately 1.5 feet on 104.07 acres. Following completion of the earth-moving portion of the project, all disturbed areas were mulched with MN certified weed-free mulch at the rate of 1 ½ tons per acre and planted with 96 pounds per acre oats. The planting boundaries shown on the drawing at the east edge of the project are approximate. The contractor is responsible for seeding to the edge of the disturbed area that is currently planted in oats.

Within an area of the southeast corner of the project, an access road leading to the barge unloading ramp will be constructed in May 2005. The exact location of the road is unknown at this time. Once the road is constructed, the contractor will not be responsible for the area of the road footprint.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

1.2.2 AGRICULTURAL MARKETING SERVICE (AMS)

| | |
|---|---|
| AMS-01 | Federal Seed Act<br>Regulations (Part 201-202) |

1.3 SUBMITTALS All items of technical data that are specifically identified in this specification shall be delivered strictly in accordance with CONTRACT CLAUSES, SPECIAL CONTRACT REQUIREMENTS, and SECTION 1.3.6, SUBMITTAL PROCEDURES. Submittal Register, ENG FORM 4288 is attached to and thereby made a part of this contract. All data delivered shall be identified by reference to the particular specification paragraph against which it is furnished.

1.3.1 Prior to the delivery of materials, certificates of compliance and certified laboratory test reports shall be submitted certifying that materials meet the requirements specified. Certified copies of the reports for the following materials shall be submitted.

A. Seeds: For mixture percentage, pure live seed, weed seed content, and germination.

1.3.2 Manufacturer's Literature: Discussing physical characteristics, applications, guarantees, and installation.

1.3.3 Delivery Schedule: Submittal of the schedule for delivery of materials to the site shall be at least 10 days before delivery.

1.3.4 Proof of Seed Order: Contractor shall submit proof of seed order or a statement that contractor has sufficient inventory for all seed mixes as specified within this section within 15 days of notice to proceed.

1.3.5 List of Responsible Personnel. Contractor shall submit the following to the Contracting Officer (CO) at the Post-award conference:

A. Final List of Subcontractors, suppliers, products
B. Designation of responsible personnel:
    1. Contractor's principal staff and consultants
    2. Contractor's superintendent or job foreman acting as Contractor's Site Representative
    3. Contractor's designated individuals authorized to sign Supplemental agreements, Field Modifications and requests for payment.

1.3.6 Submittal Procedures.

A. Make submittals promptly in accordance with approved schedule, and in such sequence as to cause no delay in the work or in the work of any subcontractor.

B. Contractor shall submit submittals to CO in accordance with submittal register for information and/or CO approval prior to commencement of work. Submit two hard copies or electronically. Electronic submissions are encouraged and preferred. Submissions that are not available in electronic format may be scanned and submitted electronically, e.g. safety meeting records, etc.

C. Submittals shall contain:
    1. The date of submission and the dates of any previous submissions.
    2. The project title and number.
    3. Contract identification.
    4. The names of:
        a. Contractor.
        b. Supplier:
        c. Manufacturer.
    5. Identification of the product with the specification section number.
    6. Field dimensions, clearly identified as such.
    7. Applicable standards such as ASTM or Federal Specification numbers.

8. Identification of deviations from Contract Documents.
9. Identification of revisions on resubmittals.
10. Resubmission Requirements:
    a. Make any corrections or changes in the submittals required by the CO and resubmit until approved.

1.4 DELIVERY, STORAGE, AND HANDLING

1.4.1 Delivery

Seed material shall be inspected upon arrival at the jobsite. The Contractor will ensure that all seed materials are delivered in manufacturer's original, unopened containers with labels and tags intact and legible. The Contractor shall certify that all seed materials received proper handling during delivery (including moisture content and temperature control), especially grasses and forbs that need special attention between gathering to planting. Materials that do not conform with the requirements of this paragraph shall be removed from the jobsite at no additional cost to the Government. Seed that has become wet, moldy, or otherwise damaged will not be acceptable. The CO reserves the right to inspect seed from each bag prior to mixing and to take samples from each seed lot for independent testing of the seed.

1.4.2 Storage

Materials shall be stored in areas provided by the Contractor. Seed shall be stored in cool, dry locations away from contaminants. Chemical treatment materials shall not be stored with other landscape materials.

1.4.3 Handling

Except for bulk deliveries, materials shall not be dropped or dumped from vehicles.

1.5 MEASUREMENT AND PAYMENT.

The work of this section will be measured for payment based on the bid schedule. No measurement or payment shall be made for seeding to restore areas damaged by the Contractor’s operations; or for reseeding any areas where vegetation fails to grow following the initial seeding. If it is found that the contract drawing does not accurately reflect areas to be planted on the eastern boundary, the contractor is responsible for providing field measurements for payment on areas beyond the drawing. Following completion of seeding and the initial herbicide treatment, the contractor may submit for payment. The government shall retain an amount equal to 10% of the contract award amount until the planting is declared a success. The contractor may submit partial payment requests as work is completed. Within 15 days of the notice to proceed the contractor will submit a detailed work schedule to the CO that shows each task and the percentage of that line item that the task is projected to cost. This is subject to approval by the CO and will be used to make partial payments.

1.6 BIDDING SCHEDULE ITEMS applicable to the work of this section are as follows:

| ITEM | UNITS |
|---|---|
| Seed | Lump Sum |
| Site preparation and | |

| | |
|---|---|
| planting | Acre |
| Site maintenance | Acre |
| Initial Herbicide Application | Acre |
| Allowance | Lump Sum |

## 1.7 SAFETY

### 1.7.1 Safety Manual

Notwithstanding any other provisions of this contract, the Contractor shall comply with all safety and health requirements as outlined in the Corps of Engineers Safety and Health Requirements Manual (EM 385-1-1) and OSHA Safety Standards to ensure the safe working conditions for his employees and government workers. The Safety Manual is available for downloading or viewing on the Internet at: http://www.usace.army.mil/inet/usace-docs/eng-manuals/em385-1-1/toc.htm.

### 1.7.2 Hazard Communication

As required in the safety manual, the contractor shall implement a hazard communication program in accordance with 29 Code of Federal Regulations (CFR) 1910.1200 or 1926.59. The written hazard communication program shall address, as a minimum, the following: training (to include potential safety and health effects from exposure), labeling, inventory of hazardous chemicals expected to be used at the site, and the location and use of Material Safety Data Sheets (MSDSs). In addition to a written plan that is to be made available to employees and provided to the CO within 15 days of the notice to proceed, safety issues must be discussed with employees prior to the start of work and a brief record of this meeting forwarded to the CO within one week of the meeting. The record should outline items discussed, date, time, location, and signatures of all employees present.

## 1.8 ENVIRONMENTAL PROTECTION

### 1.8.1 Spills and Contamination

Should a spill of petroleum, pesticide, or other contaminant occur, the contractor's immediate response shall be to proceed with measures to limit the further spread of contamination. Immediately following this initial response, the contractor shall notify the local Fire Department, CO, and appropriate local, state, and federal officials. This may include the National Response Center (1-800-424-8802) if a reportable quantity is released to the environment. The appropriate state official is the Department of Public Safety Duty Officer who can be reached at 1-800-422-0798 or (651) 649-5451. There is someone on duty at this number 24 hours a day.

Subsequent to these actions, the contractor shall take actions to clean up the spill as recommended by the Contracting Officer and at no cost to the government. Should a personnel contamination occur, the contractor shall take immediate actions as prescribed by chemical manufacturer so as to protect the safety and health of the contaminated individual(s).

### 1.8.2 Invasive Species

In order to limit the possible spread of invasive plant species to the site, the contractor shall ensure that equipment to be used is decontaminated prior to entry on the site. Decontamination shall consist of removal of dirt, debris, etc. through high-powered washing or an equivalent method approved by the CO.

## 1.9 ALLOWANCES FOR UNFORSEEN SITE MAINTENANCE

### 1.9.1 SUMMARY

Section Includes:

A. Administrative and procedural requirements governing handling and processing allowances.
B. Types of Allowances:
C. Contingency allowance for unforeseen maintenance requirements.

### 1.9.2. DEFINITIONS

A. Contingency Allowance: A reserve not-to-exceed sum of $10,000 to be included in the Contract to cover unforeseen conditions for maintenance of the site.

### 1.9.3. SUBMITTALS

A. Proposals for Maintenance: Submit proposal to CO in accordance with the terms and conditions of the Contract.

B. Invoices or Delivery Slips: Submit to indicate actual quantities of materials delivered to Site.

### 1.9.4. DEFINE REQUIRED ACTION

A. At earliest feasible date advise CO of scope of required action and the proposed date for the work.

B. Provide proposal to CO outlining materials, labor, and costs to be applied to the contingency allowance. Upon written approval from CO, purchase products and/or perform work proposed.

C. Costs to include in proposal include:
   1. Wholesale cost of material (submit invoice from manufacturer to CO).
   2. Shipping cost (submit invoice to CO).
   3. Tax (submit invoice to CO).
   4. Labor (submit invoice to CO).
   5. Incidental costs such as equipment rental (submit invoice to CO).

D. Costs to be excluded:
   1. Profit and overhead.

E. Incentive for judicious use of allowance.
   1. Following completion of the contract, the contractor will receive as an incentive 20% of any unused portion of the allowance.

PART 2 PRODUCTS

2.1 SEED

2.1.1 Seed Classification.

All seed weights are given as Pure Live Seed (P.L.S.). State-certified seed, local ecotype from within 200 miles of the jobsite, shall be provided in original sealed packages bearing the producer's guaranteed analysis for mixture percentage, purity, germination, weed seed content, and inert material. Labels shall be in conformance with AMS 01, Federal Seed Act Regulations and applicable state seed laws. Proof that seed is local ecotype shall be provided at the same time that the proof of seed order is submitted.

2.1.2 Seed Mixtures. The temporary cover crop shall consist of a species compatible with native prairie plantings and at a rate that will germinate and provide sufficient winter and spring cover to minimize wind and water erosion. A plan shall be submitted to and approved by the COR prior to beginning work at the site.

2.1.3 Weed Seed. Contractor supplied seed shall be labeled in compliance with the Minnesota seed law requirements for agricultural seed. Seed shall be free of prohibited and restricted noxious weed seeds and not greater than 1% by weight of common weed seeds. Wet, moldy, or otherwise damaged seed will be rejected. Create field mixes on site in the presence of the Contracting Officer or his representative.

2.1.4 Innoculent. Innoculent shall consist of the proper bacteria applied in the amount and manner recommended by the manufacturer to all legumes in the seed mix.

2.2 OTHER MATERIALS

2.2.1 Mulch

The site has been mulched with certified weed-free mulch and disc anchored at the rate of 1 ½ tons per acre. If additional mulch is needed, mulches shall be free from weeds, mold, and other deleterious materials. Mulch shall consist of clean grain straw (i.e., oats, wheat) or native grass hay/chaff that is certified by the Minnesota Crop Improvement Association (MCIA) or equivalent to be weed free. All mulch bales shall be in an air-dried condition at the time of delivery and shall have an MCIA inspection tag or equivalent attached indicating that the mulch has passed inspection. Note that MN/DOT Type 3 mulch shall consist of oats or wheat only. Other mulch types such as cereal rye, introduced pasture grasses, legumes, hay, etc., are not acceptable as Type 3 mulch. Prairie mulch (Type 7) or Prairie Hay (Type 8) shall be of types that have been thrashed to remove seeds so that they consist of clippings, chaff, or residue from harvesting or cleaning operations. This material may be harvested from native stands or from native grass production fields. Prairie mulch shall be **free of weed seeds**, and shall be from the Approved Vendors or Sources list for native seeds on file with the MN/DOT Agricultural Engineer or equivalent.

Dry mulching material that breaks and does not bend is unacceptable. Mulch shall have a consistency for placing with commercial mulch blowing equipment.

Following is the most recent list of MCIA Certified Weed Free Mulch Vendors for MN/DOT Type 3 Mulch.

| NAME | ADDRESS | CITY | STATE | ZIP | CLASS | CROP | PHONE |
|---|---|---|---|---|---|---|---|
| David Arens | RR1 Box 30 | Graceville | MN | 56240 | Mulch | Wheat | 320-748-7480 |
| David N. Antony | Route 1, Box 57 | Porter | MN | 56280 | Mulch | Wheat | 507-223-7144 |
| Dick Stangler Farm Seed | 44357 Kilkenny Rd | Kilkenny | MN | 56052 | Mulch | Wheat | 507-595-2883 |
| Lloyd C. Kruse | Box 899 Mill Road | Lakefield | MN | 56150 | Mulch | Wheat | 507-662-5205 |
| Michael R. Buer | 54823 – 310 St. | Grove City | MN | 56243 | Mulch | Wheat | 320-974-3240 |
| Miller Seed Farm | 22552 – 745 Avenue | Dassel | MN | 55325 | Mulch | Wheat | 320-275-2463 |
| Myron Boll | 8399 - 72 Street SW | Howard Lake | MN | 55349 | Mulch | Wheat | 320-543-3523 |
| Nathan Ebert, Ebert Farms | Route 1 Box 170 | Kilkenny | MN | 56052 | Mulch | Wheat | 507-595-2074 |
| Brian Soleta | 34484 860th St. | Brewster | MN | 56119 | Mulch | Wheat | 507-360-9754 |
| Steven Smith | 19793 – 640 Avenue | Darwin | MN | 55324 | Mulch | Oats | 320-693-6769 |
| Tom Noyes | 304 Maple St. | Porter | MN | 56280 | Mulch | Wheat | 507-296-4535 |
| Triple A+ Farms, Inc | Route 4 Box 760 | New Prague | MN | 56071 | Mulch | Wheat | 952-758-4804 |

2.2.2 Herbicide

The initial herbicide treatment shall be broad spectrum that leaves no lasting harmful residues and allows planting within 10 to 14 days after application. The herbicide shall be glyphosate based unless otherwise approved by the COR. No restricted use herbicides are allowed. No herbicides can be used on Corps of Engineers property without prior approval from the Contracting Officer. In addition, all carriers and adjutants must be non-toxic. To further increase rain-fastness and enhance performance, a surfactant shall be added per label instructions to all herbicide mixtures, with the exception of Round-up Pro. Herbicide shall be applied per manufacturer's recommendations. All treatments must be conducted during a growth period when target species are susceptible to the herbicide being used. A short plan detailing the herbicide, carriers

and adjutants, and surfactants to be used as well as hyperlinks to labels and MSDSs must be submitted electronically to the CO for approval prior to application. The plan should also include application rates, where mixing will occur, and a plan for environmental protection (Section 2.2.2.1) if mixing is to occur on government property.

No broadcast spraying shall be performed when wind speeds exceed specifications listed on the herbicide label, or wind directions are likely to result in drift to surface water or non-project lands.

To protect groundwater resources, herbicide applications will not be allowed prior to precipitation that could facilitate rapid leaching of herbicide to the water table. At a minimum, herbicide(s) cannot be applied when the forecast indicates a high probability of significant precipitation during the next 24 hours. The CO shall have the right to make these determinations and terminate any planned herbicide applications based on available weather forecasts and current conditions. Additionally, excessively dry conditions that can negatively affect herbicide performance should also be avoided. The contractor is to notify the CO of any planned herbicide applications and receive prior approval before completing the planned application.

Payment for the initial herbicide treatment shall be as established in the bid schedule. The cost of spot herbicide treatments, if necessary, during the first two growing seasons shall be included in the lump sum base cost for site maintenance. Payment for additional herbicide treatments, if necessary, during subsequent growing seasons shall be submitted per Section 1.9, Allowances.

2.2.2.1. Handling and Mixing

All herbicides will be handled and stored in accordance with instructions on the EPA registration label. All herbicides shall be mixed in accordance with the label instructions so that the desired rate of application can be attained with the contractor's application equipment. Potable water is not available; however, a side channel of the Mississippi River borders the eastern edge of the site. Should the contractor decide to use river water, proper setback distances between the contractor’s mixing tank and the river as specified by the State of Minnesota shall be maintained. The possibility exists that turbid water will diminish the effectiveness of the chemical used and the contractor is liable for the cost of reapplication should failure of the treatment occur.

The contractor is required to provide a secondary containment system around their herbicide mixing area when herbicides are mixed on government property. This containment system must be constructed of impervious materials. In addition, the contractor will ensure that no contamination of any water source occurs and that emergency spill containment equipment is at the worksite and is capable of containing all potential herbicide spills from contractor vehicles/equipment. Unused, mixed pesticides will be disposed of in accordance with local, state and EPA guidelines. Spray equipment cleaning will also be accomplished in accordance with these guidelines. Prior to leaving a worksite for the day, the contractor shall remove all equipment and unused materials, any waste materials, oil, empty herbicide containers and litter resulting from contract activities on government property.

2.2.2.2 Alternative Herbicides

If at any time during the contract period, the contractor decides that a selective herbicide is needed for spot treatment of non-native plants, he may submit a written request to apply alternative herbicides. The Contracting Officer must receive submission of such a request a minimum of 15 working days in advance of the desired application date. This submission shall be electronic and shall include but not limited to, hyperlinks to an EPA product label, manufacturer's catalog sheet or specification data sheet and material safety data sheet (MSDS), area to be treated, target pest, and reason for the choice must be submitted with the request. The request will be reviewed considering, as a minimum, relative effectiveness compared to the currently specified herbicide, toxicity and costs.

### 2.2.3 Licensing

The contractor, all of his employees, and any subcontractors performing work under this contract shall possess a valid state commercial herbicide applicator's license for the state of Minnesota and shall comply with all Federal, State, and local laws and regulations applicable to the contract work and to the products and materials used by the contractor in performing that work. Evidence of such licensing shall be submitted prior to application. Department of Labor as well as Minnesota state regulations regarding employment of youth shall be observed.

### 2.2.4 Public Safety

Public safety must be ensured when spraying or using pesticides. The contractor must place appropriate warning signs, which inform the public that pesticides have been applied, and the date they were applied. The signs will remain in place a minimum of two weeks.

### 2.2.5 EPA Registration Label

All work shall be performed in accordance with the instructions on the EPA registration label of the chemical herbicide used. All safety instructions featured on the label shall be strictly adhered to.

### 2.2.6 Material Safety Data Sheets

Material Safety Data Sheets (MSDS) shall be submitted to the Contracting Officer as outlined in Sections 2.2.2 and 2.2.2.2. The Contractor shall also make these MSDSs readily available to all affected contract employees.

### 2.2.7 Post-Application Documentation

The contractor shall submit completed copies of the "Post-Application Documentation Form" for each day's work and for each herbicide used. A sample form is provided in Attachment 4 and may be reproduced. The contractor may use his or her own form, however, all information included on the Corp's form must be included on the contractor's form. Scanned copies of this form may be submitted electronically or hard copies will be mailed to the addresses listed below within five working days of each application.

Kurt.A.Brownell@usace.army.mil
US Army Corps of Engineers
Mississippi River project
Natural Resource Section
ATTN: Mr. Kurt Brownell

Robert.A.Silvagni@usace.army.mil
St. Paul District, Corps of Engineers
Army Corps of Engineers Centre
190 5th Street East
CEMVP-CO-RB (Mr. Robert Silvagni)

1114 South Oak Street St. Paul, MN 55101-1638
La Crescent, MN 55947-1560

2.2.8. Warranty

2.2.8.1 The contractor shall exercise his/her professional judgment as to the application rate, and time and extent of application of the herbicides. The contractor warrants that:

Should the desired results not be achieved, the contractor will, at no additional cost to the Government, reapply the herbicide to those areas where targeted vegetative growth continues or recurs. The determination as to the acceptable performance of the contractor and the need to reapply the herbicides will rest solely with the CO or his authorized representative. A request to retreat an area may be either verbal or in writing. The desired results to be achieved are a minimum 95% stand reduction of the target pest without damage to the desired native vegetation.

2.2.8.2 The contractor shall be responsible for restoring any area that does not satisfy the warranty requirements at no additional cost to the Government. Areas will be retreated within the time specified by the Contracting Officer's notice to the Contractor. The contractor is responsible for damages to persons or property, including unreasonable or unnecessary damages to non-target vegetation, within and outside the treatment areas resulting from the performance of the contract work. Reseeding of non-target native vegetation damaged in this way may be necessary and will be at the contractor's expense.

2.3 GOVERNMENT SUPPLIED MATERIALS

2.3.1 The government has procured seed harvested from the Nature Conservancy lands (TNC) within the Weaver Dunes complex just south of the project site. This seed is free of prohibited and restricted noxious weed seeds and was harvested during 2003 and 2004. Analytical results may be found in Attachment 5. The purpose of these collections is to utilize local ecotype seed. This seed is stored on TNC property (80 County Road 84, Kellogg, MN 55945) and it is the responsibility of the contractor to transport this seed to the site, a distance of approximately 3 miles. The point of contact at TNC is Ms. Anna Travaglione, tel. 507-767-4502. It is the responsibility of the contractor to inspect this seed prior to leaving TNC property and to notify the government if any problems are noted with this seed. Absent notification and documentation of a problem, the contractor's warranty will also apply to areas planted with this seed. A spreadsheet detailing this seed is as follows:

| Common Name | Scientific Name | Seeding Rate (ounces per acre) Mix 1 | Seeding Rate (ounces per acre) Mix 2 | Acres to be planted on (Mix 1) | Acres to be planted on (Mix 2) | Total number of ounces required | Total number of pounds required | Pounds government provided seed |
|---|---|---|---|---|---|---|---|---|
| little bluestem | *Andropogon scoparius* | 32 | 32 | 110.33 | 20.44 | 4185 | 261.54 | 261.54 |
| sand dropseed | *Sporobolus cryptandrus* | 0.5 | 0.5 | 110.33 | 20.44 | 65 | 4.09 | 4.09 |
| big bluestem | *Andropogon gerardii* | 8 | 8 | 110.33 | 20.44 | 1046 | 65.39 | 65.39 |
| hoary vervain | *Verbena stricta* | 1 | 1 | 110.33 | 20.44 | 131 | 8.17 | 8.17 |
| dotted mint | *Monarda punctata* | 1 | 0 | 110.33 | 0 | 110 | 6.90 | 6.90 |
| common evening primrose | *Oenthera biennis* | 0.5 | 2 | 110.33 | 20.44 | 96 | 6.00 | 4.35 |
| canadian milk vetch | *Astragalus canadensis* | 0.25 | 0 | 110.33 | 0 | 28 | 1.72 | 1.72 |
| silky prairie clover | *Petalostemum villosum* | 1.8 | 0 | 110.33 | 0 | 199 | 12.41 | 2.63 |
| purple prairie clover | *Petalostemum purpureum* | 1 | 1 | 110.33 | 20.44 | 131 | 8.17 | .5 |
| white prairie clover | *Petalostemum candidum* | 1 | 0 | 110.33 | 0 | 110 | 6.90 | .38 |
| round headed bush clover | *Lespedeza capitata* | 2 | 2 | 110.33 | 20.44 | 262 | 16.35 | 6.25 |
| lead plant | *Amorpha canescens* | .5 | 0 | 110.33 | 0 | 55 | 3.45 | .56 |
| showy sunflower | *Helianthus pauciflorus* | .25 | 0 | 110.33 | 0 | 28 | 1.72 | 1 |

Other native species are present in small amounts, but their value will not be considered as part of this contract. For the purpose of bidding, the contractor will subtract the amount of government provided seed from the total amounts needed for this work and then calculate the lump sum price for seed to be provided by contract.

## PART 3 EXECUTION

### 3.1 SEEDING TIMES

Seeding shall be conducted between 1 May and 15 June 2005. A cover crop of oats was planted during the 2004 growing season and crop residue remains at the site. It is the responsibility of the contractor to ensure that sufficient cover remains at the site during the summer of 2005 to minimize potential dust problems. A suitable cover crop shall be planted with the native species in order to achieve this.

### 3.2 SITE PREPARATION

#### 3.2.1 Preparation of Seeding Areas

3.2.1.3 Unsatisfactory Environmental Conditions. Site preparation work shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture or other unsatisfactory conditions prevail, the work shall be stopped as determined by the contractor or when directed by the CO.

3.2.2 Existing Ground Cover. Existing ground cover within the seeding areas shown on Attachment 1 shall be sprayed with an herbicide prior to planting unless otherwise indicated on the plans. Herbicide shall be applied to achieve initial control of potential weedy species on the area to be seeded with native vegetation. Spraying shall be completed during a timeframe when weeds are actively growing that will achieve optimum results, as directed by label requirements. If the contractor or CO determines that all or part of the site does not have any weedy species present, this requirement may be waived. The

contractor must demonstrate to the CO that herbicide treatment is not necessary and receive approval from same. Payment is based on actual acres treated and it is the responsibility of the contractor to provide field measurements to the CO to verify quantities for payment.

3.3 SEEDING.

Prior to seeding, any previously prepared seedbed areas compacted or damaged by interim rains, traffic, or other cause, shall be reworked to prepare the ground condition for the cover crop and/or native seeding.

3.3.1 General. Climatic conditions should be favorable for growth. Wherever possible, all seed must be drilled, using a Truax seed drill or other approved equipment. Other seeding methods are subject to approval. When drills are used, markers or other means shall be provided to ensure that the successive seeded strips shall overlap or be separated by a space no greater than equipment row spacings. When delays in operations extend the work beyond the most favorable planting season for species designated, or when conditions are unsuitable due to drought, high winds, excessive moisture, or other factors so that satisfactory results are not likely to be obtained, work shall be halted as directed and resumed only when conditions are favorable or when approved alternate or corrective measures and procedures have been effected. If inspection during seeding operations or after germination indicates that strips wider than the space between the rows planted have been left unplanted, additional seed shall be sown as directed. Seeding and/or mulching shall be accomplished in a manner such that no visible ruts are present.

3.3.2 Broadcast Seeding. In the unlikely event that areas are inaccessible to drill seeding, seed shall be broadcast by hand. Seed shall be distributed uniformly over designated areas. Half of seed shall be sown with sower moving in one direction, and the remainder with sower moving at right angles to first sowing. Seed shall be covered to an average depth of 1/4 inch by brush harrow, spike-tooth harrow, chain harrow, cultipacker, hand rake with wood tines, or other approved device. Seed shall not be broadcast when wind speed exceeds 5 miles per hour.

3.3.3 Drill Seeding. Drill seeding shall be accomplished with approved equipment with drills set not more than 6 inches apart. Seed distribution must be uniform and set to an average depth of 1/4 inch. When slopes exceed 1 vertical on 5 horizontal, baffle plates spaced not more than 6 inches apart shall be installed in the seed box.

3.3.4 Seeding Rate. Seed shall be uniformly mixed and applied at the rate stated in the seed mix tables.

3.3.5 Applying and Anchoring Mulch. The site was previously mulched and planted with oats as a cover crop during June 2004. Wind and water erosion control are important components of this job and should areas be unprotected and subject to erosion, additional mulch may be required. Prior to seeding the site, any areas needing mulch shall be covered uniformly in a continuous blanket at a rate of 1 1/2 tons per acre. Mulch shall be spread by hand, manure spreader, modified grain combine with straw-spreader attachment, or a blower-type mulch spreader. Mulching shall be started at the windward side of relatively flat areas, or at the upper part of a steep slope, and continued uniformly until the area is covered. Mulch shall not be bunched. Immediately following the spreading, the mulch shall be anchored to the soil by a V-type wheel land packer, a scalloped-disk land packer designed to force mulch into the soil surface, or other suitable equipment. The CO will determine the number of passes needed, not to exceed

three. All areas seeded on any given day must have sufficient mulch/chaff to control erosion or be mulched on that same day.

3.4 EROSION CONTROL (See Section 3.7.3.4)

3.5 RESTORATION AND CLEANUP Excess and waste material shall be removed and properly disposed of off the site. Adjacent paved areas shall be cleaned.

3.6 PROTECTION OF PROJECT AREAS

Immediately after seeding/mulching, the area shall be protected against traffic or other use by providing signage as required or as directed by the CO.

3.7 VEGETATION ESTABLISHMENT PERIOD

3.7.1 Length of Period

On completion of the last day of the native prairie planting operation, the Turf Establishment Period will begin. On areas to receive seed mix 1, the establishment period shall extend for four growing seasons (approximately 40 months) after completion of the seeding on the entire project, unless desired growth is established, and shortening the period of the Contractor's responsibility for acceptably established areas is authorized by the CO. On areas to receive seed mix two, the establishment period shall extend for two growing seasons (approximately 16 months).

3.7.2 Stand Density and Diversity

3.7.2.1 The contractor and CO will conduct a warranty inspection prior to acceptance of work under this contract. Using a random number generator, the CO will randomly select twenty 100 feet by 2 feet transects within the planting. The CO and contractor will then identify all species within each transect as well as the total number of plants. This will be used to verify that a proper density and species diversity has been achieved. A proper stand of vegetation from the seeding is defined as a minimum average of 70 plants per 100 square feet. Plant diversity shall be comprised of a minimum of 50% of grass species and 25% of forb species in the planting mix in at least 50% of the transects. No prohibited noxious weeds shall be present in any of the transects as defined by the Minnesota Noxious Weed Law contained in Minnesota Rules 1505.0730 to 1505.0750. For the purposes of this contract, spotted knapweed (*Centaurea maculosa*) is also considered a noxious weed. Knapweed is not currently known from the immediate area to include Nature Conservancy property from where government provided seed was gathered. In addition, the site shall have no greater than 5% average of non-native species present in each transect as determined by the average stem count per 100 square feet and the actual stem count of each weedy species noted, e.g. total stem count weedy species all transects = 15, total stem count all transects = 1600, 15/1600 = 0.9%.

The area within the berm that is to receive seed mix 2 will be made available for recreational use beginning in the Fall 2006. Beginning in the fall of 2006 warranty requirements will not apply to this section, however, if native plants of the type seeded are not present on sections within this area by the end of the second growing season, reseeding of those patches may be required at no additional cost to the government.

3.7.3 Maintenance During Establishment Period

3.7.3.1 Mulched/seeded areas shall be maintained until all work or designated portions thereof have been completed and accepted and any damage shall be repaired. Maintenance shall include protecting the site from erosion and maintaining erosion control material, if any. The maintenance period is defined as beginning when seed/mulch have been placed onto the site and terminating at the end of the contract performance period.

3.7.3.2 Seeded Areas. The Contractor shall be responsible for the proper care of seeded areas until the project is accepted.

3.7.3.3 Mowing Maintenance. Mowing will be used to control pioneering weeds and other competition. For the purposes of this project a weed is defined as any plant not native to prairies in this part of Minnesota. During the first growing season, mowing shall be done before the general height is 12 inches, or when the weed species begin to flower, whichever is earlier. Mowing shall occur before the weed species set seed. Mowing shall be conducted as needed during the first growing season and multiple mowings may be necessary. Mowing shall be at a height of 4 inches. During the second growing season, the site shall be mowed at least once to a height of 4 inches in mid-June.

The area within the berm that is to receive seed mix 2 will be maintained for two growing seasons only. This area will be made available for recreational use beginning in the Fall 2006.

Requirements outlined above are to be considered minimum requirements only. Should the contractor determine that additional mowing is necessary during subsequent growing seasons, a request shall be forwarded to the CO for approval and reimbursement shall be made under section 1.9, Allowances. Payment for mowing during the first two growing seasons is included in the lump sum payment for seeding and routine maintenance.

3.7.3.4 Erosion Control.

The Contractor shall control erosion during the maintenance period by using ditch checks, sod swales, silt fences or other methods until a proper stand of turf is established. Wind erosion is a concern due to the close proximity of residential neighborhoods. A cover crop, mulch, and any other method compatible with a native prairie planting shall be utilized in order to minimize dust complaints. Minnesota Pollution Control Agency (MPCA) Stormwater Program for Construction Activity (http://www.pca.state.mn.us/water/stormwater/stormwater-c.html) requirements apply to this site, specifically Part IV, G, 2. The MPCA has previously approved removal of construction site silt fence and it is the contractor's responsibility to achieve final closure of the site based on permanent stabilization with a perennial cover. The cost of compliance with this section shall be included within the lump sum payment for seeding and routine maintenance.

3.7.3.5 Repair.

If, as a result of the contractor's negligence or other fault, any portion of the surface becomes rilled, gullied, damaged, or destroyed, that portion shall be repaired to re-establish the area without additional cost to the government.

3.7.3.6 Inspections. The contractor shall at no additional cost to the government perform site inspections as needed during the first two growing seasons. It is expected that multiple inspections will occur each year during this time period. During the third and fourth growing seasons, two inspections

per season will be included in the base maintenance bid price. Should the contractor determine that additional inspections are needed, a request shall be forwarded to the COR for approval and reimbursement shall be made under section 1.9, Allowances.

3.7.3.7 Warranty. The contractor shall at no additional cost to the government effect repairs to the project should it fail to pass the warranty inspection. If the contractor feels that another growing season will suffice to achieve sufficient growth to pass the inspection, this should be presented to the CO for approval. Should the contract performance period be extended, the contractor is liable for the cost of additional yearly inspections (Section 3.7.3.6) for the duration of the contract period as well as additional warranty inspection(s) to determine the success of the planting. Reseeding of problem areas is also possible under this section, however this option will only be exercised if other viable options are not available.

Should prolonged, severe drought prevent growth of the planting during a given growing season, the contract performance period may be extended at the discretion of the CO. It is the contractor's responsibility to document this to the CO's satisfaction. If the CO concurs with the contractor on this issue, additional work outside the base contract cost required of the contractor must be documented beforehand and submitted to the CO for approval and payment as outlined in Section 1.9, Allowances.

3.8 QUALITY CONTROL

The Contractor shall maintain a quality control system for the work under this section, including but not limited to the following:

(1) Materials:

(a) Seed
(b) Mulch

(2) Seeding and mulching.

(3) Maintenance and turf establishment.

(4) Repair of damaged areas.

(5) Soil erosion control.

(6) Non-native species control.

A pre-construction meeting will be held at the La Crescent Natural Resource Project Office shortly after the notice to proceed. An on-site meeting will be held at the project site as the contractor is mobilizing to begin work.

Within five days of performing work at the site, an activity log shall be submitted to the CO detailing purpose of visit, date, time, weather, work performed, problems identified, plan for resolving identified problems, and who was involved in the work. If work continues over the course of several days within a given week, this log may be submitted to include that entire phase of work, or at the end of each week should work extend over a period greater than one week.

3.8.1 Submittal Management

The initial submittal register, ENG FORM 4288, is provided as part of this contract and can be found in Attachment 6. This register will be provided in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. ENG FORM 4025, submittal transmittal form shall also be provided to the contractor in electronic form. Where possible and as required by the CO, submittals shall be in electronic format utilizing ENG FORM 4025 as a cover and tracking shall be accomplished using ENG FORM 4288.

PART 4 LIABILITY OF AND DAMAGES TO THE GOVERNMENT

4.1 GOVERNMENT LIABILITY

The Government assumes no liability from the contractor's performance of the contract work. The contractor shall hold and save the Government harmless from any and all liability to others arising from the performance of the contract.

4.2 RESPONSIBILITY FOR DAMAGES

The contractor is responsible for all damages to persons and property resulting from performance of the contract work. There are no known utilities that will be impacted by this project. It is the contractor’s responsibility to ensure that utilities, if any, are marked and to take steps to avoid impacts with said utilities.

PART 5 CONTRACTOR QUALIFICATIONS REQUIREMENTS

5.1 EXPERIENCE STATEMENT The Contractor shall submit a statement with their bid package indicating that the work to establish the prairie will be supervised by an individual with a minimum of 5 years experience with establishment and restoration of native plant communities. The statement shall include an experience record for this individual that demonstrates the required experience and a list of references for a minimum of this individual’s three most recent jobs of comparable scope to this project. References will be checked prior to contract award in accordance with the terms set forth in FAR clause 52.212-2 [EVALUATION--COMMERCIAL ITEMS (JAN 1999)] and the contract will be awarded based on “best value”, where price and qualifications are considered. The contractor may not substitute for this individual unless they are judged by the CO to be at least equal to the experience and reputation of the individual originally proposed.

PART 6 ATTACHMENTS

**ATTACHMENT 1**

SEEDING PLAN

**ATTACHMENT 2**
SEED MIX 1

**FORBS**

| Lot # | Description | % by wt. | Grams | Qty | | # Seeds |
|---|---|---|---|---|---|---|
| | Anemone cylindrica (Thimbleweed) | 0.07 | 2.8360 | 0.1000 | OZ | 2,600 |
| | Anemone patens wolfgangiana (Pasque Flower) | 0.17 | 7.0900 | 0.2500 | OZ | 4,500 |
| | Artemisia caudata (Beach Wormwood) | 0.17 | 7.0900 | 0.2500 | OZ | 62,500 |
| | Artemisia ludoviciana (Prairie Sage) | 0.07 | 2.8360 | 0.1000 | OZ | 25,000 |
| | Asclepias tuberosa (Butterfly Weed) | 1.33 | 56.7200 | 2.0000 | OZ | 8,600 |
| | Asclepias verticillata (Whorled Milkweed) | 0.33 | 14.1800 | 0.5000 | OZ | 5,500 |
| | Aster azureus (Sky Blue Aster) | 0.17 | 7.0900 | 0.2500 | OZ | 20,000 |
| | Astragalus canadensis (Canadian Milk Vetch)<br>__ Scarify | 0.17 | 7.0900 | 0.2500 | OZ | 4,250 |
| | Baptisia leucantha (White Wild Indigo)<br>__ Scarify | 1.33 | 56.7200 | 2.0000 | OZ | 3,400 |
| | Campanula rotundifolia (Harebell) | 0.07 | 2.8360 | 0.1000 | OZ | 90,000 |
| | Cassia fasciculata (Partridge Pea)<br>__ Scarify | 21.28 | 907.5200 | 2.0000 | LB | 86,400 |
| | Coreopsis palmata (Prairie Coreopsis) | 0.33 | 14.1800 | 0.5000 | OZ | 5,000 |
| | Crotalaria sagittalis (Rattlebox) | 0.67 | 28.3600 | 1.0000 | OZ | 4,500 |
| | Desmodium illinoense (Illinois Tick Trefoil) | 0.67 | 28.3600 | 1.0000 | OZ | 4,300 |
| | Euphorbia corollata (Flowering Spurge) | 0.67 | 28.3600 | 1.0000 | OZ | 8,000 |
| | Gnaphalium obtusifolium (Sweet Everlasting) | 0.13 | 5.6720 | 0.2000 | OZ | 100,000 |
| | Helianthus pauciflorus (Showy Sunflower) | 0.17 | 7.0900 | 0.2500 | OZ | 1,000 |
| | Helianthus occidentalis (Western Sunflower) | 0.17 | 7.0900 | 0.2500 | OZ | 3,500 |
| | Kuhnia eupatorioides (False Boneset) | 0.17 | 7.0900 | 0.2500 | OZ | 8,000 |
| **Lot** | **Description** | **% by wt.** | **Grams** | **Qty** | | **# Seeds** |

| # | | | | | | |
|---|---|---|---|---|---|---|
| | Lespedeza capitata (Round-headed Bush Clover) | 1.33 | 56.7200 | 2.0000 | OZ | 16,000 |
| | Liatris aspera (Button Blazing Star) | 0.67 | 28.3600 | 1.0000 | OZ | 16,000 |
| | Monarda fistulosa (Wild Bergamot) | 0.67 | 28.3600 | 1.0000 | OZ | 70,000 |
| | Monarda punctata (Spotted Bee Balm) | 0.67 | 28.3600 | 1.0000 | OZ | 90,000 |
| | Oenthera biennis (Evening Primrose) | 0.34 | 14.1747 | 0.5000 | OZ | 45,000 |
| | Petalostemum candidum (White Prairie Clover) | 0.67 | 28.3600 | 1.0000 | OZ | 19,000 |
| | Petalostemum purpureum (Purple Prairie Clover) | 0.67 | 28.3600 | 1.0000 | OZ | 18,000 |
| | Petalostemum villosum (Silky Prairie Clover) | 1.20 | 51.0480 | 1.8000 | OZ | 25,200 |
| | Potentilla arguta (Prairie Cinquefoil) | 0.17 | 7.0900 | 0.2500 | OZ | 57,500 |
| | Ratibida pinnata (Yellow Coneflower) | 0.67 | 28.3600 | 1.0000 | OZ | 30,000 |
| | Rudbeckia hirta (Black-eyed Susan) | 0.67 | 28.3600 | 1.0000 | OZ | 92,000 |
| | Sisyrinchium campestre (Prairie Blue-eyed Grass) | 0.07 | 2.8360 | 0.1000 | OZ | 4,500 |
| | Solidago nemoralis (Old Field Goldenrod) | 0.07 | 2.8360 | 0.1000 | OZ | 30,000 |
| | Solidago rigida (Stiff Goldenrod) | 0.17 | 7.0900 | 0.2500 | OZ | 10,250 |
| | Verbena stricta (Hoary Vervain) | 0.67 | 28.3600 | 1.0000 | OZ | 28,000 |
| Totals for FORBS : | | 36.42 | 1566.8847 | | | #998,500 |
| | | | | 55.2500 | OZ | |
| | | | | 3.4531 | LB | |

**TREES, SHRUBS & VINES**

| Lot # | Description | % by wt. | Grams | Qty | | # Seeds |
|---|---|---|---|---|---|---|
| | Amorpha canescens (Lead Plant) | 0.33 | 14.1800 | 0.5000 | OZ | 8,000 |
| | Ceanothus ovatus (Red Root) __ Scarify | 0.07 | 2.8360 | 0.1000 | OZ | 1,000 |
| | Rosa arkansana (Prairie Wild Rose) __ Scarify | 0.33 | 14.1800 | 0.5000 | OZ | 1,250 |
| Totals for TREES, SHRUBS & VINES : | | 0.73 | 31.1960 | | | #10,250 |
| | | | | 1.1000 | OZ | |
| | | | | 0.0688 | LB | |

**GRASSES, SEDGES & RUSHES**

| Lot # | Description | % by wt. | Grams | Qty | | # Seeds |
|---|---|---|---|---|---|---|
| | Andropogon gerardii (Big Bluestem PLS) | 5.32 | 226.8800 | 8.0000 | OZ | 80,000 |
| | Andropogon scoparius (Little Bluestem PLS) | 21.28 | 907.5200 | 2.0000 | LB | 480,000 |
| | Bouteloua curtipendula (Side-oats Grama PLS) | 21.28 | 907.5200 | 2.0000 | LB | 192,000 |
| | Carex brevior (Plains Oval Sedge) | 0.33 | 14.1800 | 0.5000 | OZ | 14,500 |
| | Carex muhlenbergii (Sand Bracted Sedge) | 0.67 | 28.3600 | 1.0000 | OZ | 12,000 |
| | Elymus canadensis (Canada Wild Rye PLS) | 5.32 | 226.8800 | 8.0000 | OZ | 41,600 |
| | Koeleria cristata (June Grass) | 1.33 | 56.7200 | 2.0000 | OZ | 400,000 |
| | Panicum virgatum (Switch Grass PLS) | 1.33 | 56.7200 | 2.0000 | OZ | 28,000 |
| | Sorghastrum nutans (Indian Grass PLS) | 5.32 | 226.8800 | 8.0000 | OZ | 96,000 |
| | Sporobolus cryptandrus (Sand Dropseed) | 0.33 | 14.17480 | 0.5000 | OZ | 50,000 |
| Totals for GRASSES, SEDGES & RUSHES : | | 62.85 | 2665.8452 | | | #1,374,100 |
| | | | | 94.0000 | OZ | |
| | | | | 5.8750 | LB | |
| Totals for this mix : | | 100.00 | 4249.7512 | | | #2,422,850 |
| | | | | 150.3500 | OZ | |
| | | | | 9.3969 | LB | |

**ATTACHMENT 3**
SEED MIX 2

**FORBS**

| Lot # | Description | Grams | Qty | | # Seeds |
|---|---|---|---|---|---|
| | Cassia fasciculata (Partridge Pea) __ Scarify | 453.7600 | 1.0000 | LB | 43,200 |
| | Lespedeza capitata (Round-headed Bush Clover) | 56.7200 | 2.0000 | OZ | 16,000 |
| | Liatris aspera (Button Blazing Star) | 28.3600 | 1.0000 | OZ | 16,000 |
| | Oenthera biennis (Evening Primrose) | 56.7200 | 2.0000 | OZ | 180,000 |
| | Petalostemum purpureum (Purple Prairie Clover) | 28.3600 | 1.0000 | OZ | 18,000 |
| | Ratibida pinnata (Yellow Coneflower) | 28.3600 | 1.0000 | OZ | 30,000 |
| | Rudbeckia hirta (Black-eyed Susan) | 28.3600 | 1.0000 | OZ | 92,000 |
| | Verbena stricta (Hoary Vervain) | 28.3600 | 1.0000 | OZ | 28,000 |
| Totals for FORBS : | | 708.7381 | | | #423,200 |
| | | | 25.0000 | OZ | |
| | | | 1.5625 | LB | |

**GRASSES**

| Lot # | Description | Grams | Qty | | # Seeds |
|---|---|---|---|---|---|
| | Andropogon gerardii (Big Bluestem PLS) | 226.8800 | 8.0000 | OZ | 80,000 |
| | Andropogon scoparius (Little Bluestem PLS) | 907.5200 | 2.0000 | LB | 480,000 |
| | Bouteloua curtipendula (Side-oats Grama PLS) | 907.5200 | 2.0000 | LB | 192,000 |
| | Elymus canadensis (Canada Wild Rye PLS) | 226.8800 | 8.0000 | OZ | 41,600 |
| | Koeleria cristata (June Grass) | 56.7200 | 2.0000 | OZ | 400,000 |

| | | | | | |
|---|---|---|---|---|---|
| | Panicum virgatum (Switch Grass PLS) | 56.7200 | 2.0000 | OZ | 28,000 |
| **Lot #** | **Description** | **Grams** | **Qty** | | **# Seeds** |
| | Sorghastrum nutans (Indian Grass PLS) | 226.8800 | 8.0000 | OZ | 96,000 |
| | Sporobolus cryptandrus (Sand Dropseed) | 14.1748 | 0.5000 | OZ | 50,000 |

| | | | | | |
|---|---|---|---|---|---|
| Totals for GRASSES: | | 2622.3312 | | | #1,347,600 |
| | | | 93.0000 | OZ | |
| | | | 5.8125 | LB | |
| Totals for this mix : | | 3331.0693 | | | #1,790,800 |
| | | | 118.0000 | OZ | |
| | | | 7.3750 | LB | |

**ATTACHMENT 4**

POST-APPLICATION DOCUMENTATION FORM

ST PAUL DISTRICT

DATE: _____

U.S. ARMY CORPS OF ENGINEERS
PEST CONTROL PROGRAM
POST-APPLICATION DOCUMENTATION FORM

Address: _____
City: _____
Phn: _____

CONTRACTOR: _____

APPLICATOR: _____

Addr: _____
City: _____
Phone: _____

Addr: _____
City: _____
Phone: _____

TARGET PEST: _____

| DATE OF APPLICATION | TIME OF DAY | AIR TEMP | RELATIVE HUMIDITY | CLOUD COVER | WIND DIRECTION AND SPEED | ACREAGE TREATED |
|---|---|---|---|---|---|---|
| _____ | ____:____ | _____ | _____ | _____ | _____ | _____ |

DESCRIPTION OF TREATED AREA: _____

_____

_____

PESTICIDE (TRADE NAME): _____

FORM APPLIED: _____

ACTIVE INGREDIENTS: _____

_____

EPA REGISTRATION: _____ EPA CLASSIFICATION: _____

HOW THE PESTICIDE WAS MIXED: _____

APPLICATION RATE (TOTAL): _____ APPLICATION RATE [ACTIVE INGREDIENT(S)]: _____

APPLICATION EQUIPMENT USED: _____

_____

AMOUNT APPLIED: _____

DISPOSAL INFORMATION DISPOSAL DATE: _____

METHOD: _____

LOCATION: _____

ADDITIONAL REMARKS: _____

**ATTACHMENT 5**

THE NATURE CONSERVANCY SEED TEST RESULTS

**ATTACHMENT 6**
SUBMITTAL REGISTER

**ATTACHMENT 7**
VICINITY MAP