



Native Landscape Installation Summary Report MWRDGC North Side, Lemont and LASMA Berm Sites

Cook County, Illinois

Prepared for:

Metropolitan Water Reclamation
District of Greater Chicago
100 Erie Street
Chicago, Illinois 60611

April 2004

Prepared by:

Conservation Design Forum
Landscape Architecture & Community Planning
Ecological Restoration
Water Resource and Ecological Engineering

NATIVE LANDSCAPE INSTALLATION SUMMARY REPORT
MWRDGC NORTH SIDE, LEMONT, AND LASMA BERM SITES

Cook County, Illinois

Prepared for:

Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street
Chicago, Illinois 60611

April 2004

NATIVE LANDSCAPE INSTALLATION SUMMARY REPORT
MWRDGC NORTH SIDE, LEMONT, & LASMA BERM SITES

Cook County, Illinois

Prepared for:

Metropolitan Water Reclamation District of
Greater Chicago
100 East Erie Street
Chicago, Illinois 60611

April 2004

CONSERVATION DESIGN FORUM
Project No. 03063.00

Prepared by _____

Kenneth C. Johnson
Botanist/Restoration Ecologist

Date _____

TABLE OF CONTENTS

INTRODUCTION 1

SITE SELECTION, PREPARATION, & INITIAL SEED INSTALLATION 1

 NORTH SIDE WATER RECLAMATION PLANT 1

 LEMONT WATER RECLAMATION PLANT 2

 LASMA BERM 2

SUMMARY 3

APPENDICES

- APPENDIX I MEMORANDA PREPARED BY CDF (JULY 9TH, 2003; JANUARY 15TH, 2004)
- APPENDIX II DETAIL SPECIFICATIONS FOR CONTRACTOR BIDDING
- APPENDIX III PLANT SPECIES AND SEED QUANTITIES

EXHIBITS

- EXHIBIT A NORTH SIDE WRP NATIVE LANDSCAPE AREAS (SHEET L-A1; L-A2)
- EXHIBIT B LEMONT WRP NATIVE LANDSCAPE AREAS (SHEET L-B)
- EXHIBIT C LASMA BERM NATIVE LANDSCAPE AREA (SHEET L-C)

PHOTOGRAPHS

INTRODUCTION

In June of 2003, Conservation Design Forum (CDF) was retained by the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) to facilitate the retrofitting/conversion of existing turf to native landscape at the North Side and Lemont Water Reclamation Plants, and native landscape seeding of the LASMA Berm.

To date, the specific services that CDF has provided the MWRDGC includes assistance with the preparation of bid documents, contractor selection, and contractor coordination / oversight during the initial site preparation and seed installation period. On-going services that CDF will provide through the 2005 growing season include contractor coordination / oversight of landscape maintenance, landscape monitoring, and client educational outreach.

The purpose of this document is to summarize the site selection, preparation, and initial seed installation activities in regards to these *de novo* ("from scratch") prairie landscapes at these three sites. This summary provides important baseline information to which native landscape monitoring can be compared. A chronological summary of these activities is presented separately for each site. Copies of two relevant memoranda are included in APPENDIX I, copies of the two detail specifications that were prepared for the project are included in APPENDIX II, and copies of the packing slips that verify species and quantities used in the seed installations are included in APPENDIX III. The exhibits include a base map of each site, and photographs of the site preparation and installation process are included at the back of the report.

SITE SELECTION, PREPARATION, & INITIAL SEED INSTALLATION

NORTH SIDE WATER RECLAMATION PLANT

The North Side Water Reclamation Plant (North Side WRP) is located at 3500 West Howard Street, in Skokie, Illinois. As summarized in a memo dated July 9th, 2003 (see APPENDIX I), it was decided that two separate areas on the grounds would be retrofitted/converted to native prairie landscape. These areas are depicted on EXHIBIT A, and total approximately 4.2 acres in size. The following summarizes the site preparation and seed installation process.

- In August 2003, the MWRDGC selected McGinty Brothers Landscaping (Long Grove, IL) to perform the site preparation work as outlined in the bid specifications (see APPENDIX II).
- On Monday, September 8th, McGinty Brothers crews applied a 5% solution of glyphosate herbicide (*Razor*) across the two areas as per the bid specifications.
- By early October the herbicided turf was brown and for the most part was dead.
- On Thursday, October 16th, a second herbicide application was conducted using a 3% solution of *Razor*. Most of the turf was brown and dead at the time of this second application, although some small weed seedlings were evident.

As stated in the bid specification, seed installation was to take place between October 30th and December 30th, 2003. Due to a delay in the selection process for the seed installation contractor, however, it was not possible to install the seed prior to the end of the 2003 calendar year. In December, the MWRDGC selected NRM, Inc. (Beecher, IL) to install the seed at the North Side WRP site. Weather conditions and contractual issues during the first few months of 2004 delayed the seed installation. On Tuesday, April 27th, 2004 NRM staff

installed the seed via a drill seeder as per the bid specifications. A list of the actual plant species and seed quantities installed is provided in APPENDIX III.

LEMONT WATER RECLAMATION PLANT

The Lemont Water Reclamation Plant (Lemont WRP) is located at 13 Stephen Street, in Lemont, Illinois. As summarized in a memo dated July 9th, 2003 (see APPENDIX I), it was decided that three separate areas on the grounds would be retrofitted/converted to native prairie landscape. These areas are depicted on EXHIBIT B, and total approximately 2.7 acres in size. The following summarizes the site preparation and seed installation process.

- In August 2003, the MWRDGC selected McGinty Brothers Landscaping (Long Grove, IL) to perform the site preparation work as outlined in the bid specifications (see APPENDIX II).
- On Monday, September 4th, McGinty Brothers crews applied a 5% solution of glyphosate herbicide (*Razor*) across the three areas as per the bid specifications.
- By late September the herbicided turf was brown and for the most part was dead.
- On Friday, October 17th, a second herbicide application was conducted using a 3% solution of *Razor*. Most of the turf was brown and dead at the time of this second application, although some small weed seedlings were evident.

As stated in the bid specification for the Lemont WRP site, biosolids were to have been incorporated into these areas after the second herbicide application and prior to seed installation; however, the MWRDGC decided not to do this as part of the site preparation.

As stated in the bid specification, seed installation was to take place between October 30th and December 30th, 2003. Due to a delay in the selection process for the seed installation contractor, however, it was not possible to install the seed prior to the end of the 2003 calendar year. In December, the MWRDGC selected NRM, Inc. (Beecher, IL) to install the seed at the Lemont WRP site. Weather conditions and contractual issues during the first few months of 2004 delayed the seed installation. On Friday, April 16th, 2004 NRM staff installed the seed via a drill seeder as per the bid specifications. A list of the actual species and seed quantities installed is provided in APPENDIX III.

LASMA BERM

The LASMA Berm (also known as "LASMA-Marathon" and "Willow Springs" Berm) is located at 7601 South LaGrange Road, in Willow Springs, Illinois. As summarized in a memo dated July 9th, 2003 (see APPENDIX I), it was decided that the entire 16-acre berm would be seeded to a native prairie landscape (see EXHIBIT C). It was discussed that the severity of the slopes on the berm will make it challenging to establish an initial sward of prairie grasses, and that soil erosion remediation measures should be anticipated until the permanent vegetative cover is in place.

In July 2003, only the northwestern portion of the berm was ready for seeding. The other portions of the berm were still in the process of being graded with a biosolids/topsoil mix and were not expected to be ready for seeding until later in the year. The following summarizes the site preparation and seed installation process.

- In August 2003, the MWRDGC selected Conservation Land Stewardship (CLS) of Elmhurst, Illinois to seed the cover crop across the berm.

- On Monday, September 8th, CLS drill seeded the Annual Rye Grass cover crop (at 40lbs per acre) across the western portions of the berm.
- On Thursday, October 9th, CLS seeded the cover crop across the most of the remaining portions of the berm after final grading/shaping by the MWRDGC.

Based upon correspondence with CLS, the following should be noted in regards to the cover crop seeding at the LASMA Berm:

- The MWRDGC was responsible for all grading and final site preparation prior to seeding.
- Although most portions of the berm were drill seeded, some areas were too steep to drive a tractor and, therefore, the seed had to be hand broadcast over the soil.
- The east and west ends of the berm were not seeded since final grading had not been completed.
- A gravel road that cuts across the central portion of the berm as well as the perimeter road were not seeded.

As stated in the bid specification, seed installation was to take place between October 30th and December 30th, 2003. Due to a delay in the selection process for the seed installation contractor, however, it was not possible to install the seed prior to the end of the 2003 calendar year. In December, the MWRDGC selected CLS to install the prairie seed at the LASMA Berm site. Weather conditions and contractual issues during the first few months of 2004 delayed the seed installation. On Thursday and Friday, April 15th and 16th, 2004 CLS staff installed the seed via a drill seeder as per the bid specifications. As with the cover crop seeding, however, in some areas the slope angles were too steep for a tractor and the seed had to be hand broadcast. The approximate areas where seed was drilled versus hand broadcast are shown on Exhibit C. A list of the actual species and seed quantities installed is provided in APPENDIX III. Note that the east and west ends of the berm, as well as a rectangular shaped area on the north-facing slope, were not seeded since final grading had not been completed. Overall, approximately 13 of the 16 acres were seeded.

SUMMARY

- Three MWRDGC facilities were selected for the retrofitting/conversion of portions of existing landscape into prairie reconstructions. These sites included: North Side WRP (\pm 4.2 acres), Lemont WRP (\pm 2.7 acres), and LASMA Berm (\pm 16 acres).
- Bid specifications were prepared that detailed site preparation measures for these prairie landscapes at the North Side WRP and Lemont WRP facilities. All landform grading and shaping at the LASMA Berm was conducted by the MWRDGC.
- Site preparation at the North Side WRP and Lemont WRP included two herbicide applications. With minor modifications, these activities were performed in late summer and fall of 2003 as outlined in the detail specifications.
- Prairie seed installation did not occur prior to the end of the 2003 calendar year (the timeline as outlined in the detail specifications). The prairie seed was installed at all three sites in April of 2004; species and quantities seeded are as listed in APPENDIX III. All portions of the designated native landscape areas at the North Side and Lemont sites were seeded. Approximately three acres of the 16-acre LASMA Berm were not seeded since the final grading was not complete.

Anticipated maintenance in the 2004 growing season includes mowing and spot herbicide applications. The specific timing of these activities are to be coordinated by the CDF representative and the maintenance contractors. Two or three mowing events will be scheduled in order to keep the weedy vegetation from becoming too coarse and from producing mature seed. Spot herbicide applications will focus on specific biennial and perennial weeds that likely will appear in the landscape by mid summer. Lastly, in September there will be a formal vegetation monitoring event at each site, the results of which will be summarized in a report with land management recommendations.

APPENDIX I

MEMORANDA PREPARED BY CDF

The following two memoranda prepared by CDF (dated July 9th, 2003; January 15th, 2004) are provided for background information on the project approach and issues related to the project schedule.

APPENDIX II

DETAIL SPECIFICATIONS FOR CONTRACTOR BIDDING

The following two detail specifications were prepared by the MWRDGC (with assistance from CDF) for contractor bidding purposes for: 1) *Prairie Landscape Site Preparation*, and 2) *Prairie Landscape Seed Installation and Maintenance*.

APPENDIX III

PLANT SPECIES AND SEED QUANTITIES

The actual species and seed quantities used in the native prairie seeding at all three project sites are included on the following two pages. NRM, Inc. (Beecher, IL) was the contractor selected to install the seed at the North Side WRP and Lemont WRP (page 1); CLS (Elmhurst, IL) was the contractor selected to install the seed at the LASMA Berm (page 2).

PHOTOGRAPHS

The photographs presented on the following several pages were taken at all three MWRDGC projects sites during the site preparation and initial seed installation activities.



September 2, 2003



September 2, 2003

Above Preinstallation site conditions.

Below Preinstallation site conditions.



September 25, 2003



October 17, 2003

Above Post herbicide conditions.

Below Second round of herbiciding.



April 10, 2004



April 10, 2004

Above Pre-seeding site conditions.

Below Pre-seeding site conditions.



April 27, 2004



April 27, 2004

Above Drill seeder.

Below Seeding.



July 17, 2003



September 2, 2003

Above Preinstallation site conditions.

Below Flagging boundary of native landscape area.



October 1, 2003



October 10, 2003

Above Herbiciding.

Below Post herbicide conditions.



April 10, 2004



April 10, 2004

Above Pre-seeding site conditions.

Below Pre-seeding site conditions.



April 16, 2004



April 16, 2004

Above Close-up of drill seeding furrow.

Below Post seeding furrow lines.



July 15, 2003



July 15, 2003

Above Preinstallation site conditions.

Below Existing berm soil (biosolid mix).



September 28, 2003



September 8, 2003

Above Biosolids installation.

Below Seeding cover crop.



October 17, 2004



November 19, 2003

Above Germinated cover crop.

Below Cover crop establishment.



April 15, 2004



April 16, 2004

Above Pre-seeding site conditions (note surface rills).

Below Initial prairie matrix seeding.



April 16, 2004



April 16, 2004

Above Drill seeding prairie matrix.

Below Hand seeding.



April 16, 2004



April 16, 2004

Above Typical slope where hand broadcast seeding occurred.

Below Hand seeding.