

Toolkit for Greener Practices
Showcase of Ideas
Option 1-4: Green Space Development

**Natural Resource Damage or Supplemental Environmental Projects:
Grey Cloud Dunes Scientific & Natural Area**

Site conditions:

- As part of a plan approved by the U.S. Environmental Protection Agency (EPA), a petroleum company donated this property to the State of Minnesota as part of a nationwide settlement for past environmental violations at the company's facilities in Kentucky, Ohio and Minnesota. Minnesota facilities include a bulk storage facility and an oil refinery.
- In anticipation of the property donation, the petroleum company undertook cleanup activities in a small area of what was to become Grey Cloud Dunes State Natural Area, removing buried drums, contaminated soil and old asphalt that had been removed from the company's nearby facility and disposed of on this property. These activities were above and beyond what was required under state law to restore the property.

Preventive activity description:

A petroleum company donated property along the Upper Mississippi River that includes one of the larger and higher quality dry sand prairies remaining in the Twin Cities metropolitan area. This ecosystem is not found elsewhere in the region and will be protected as a scientific and natural area. The DNR had actually identified this prairie type, which is of statewide significance because it is so rare, at the site some years before the property transfer was considered. This property transfer, in effect, "replaced" impacted property at various cleanup sites operated by the responsible party on behalf of the public trust.

Perched on a panoramic slope overlooking the Mississippi River backwaters, Grey Cloud Dunes consist of deep layers of fine sand deposited centuries ago by an ancient river much broader than today's Mississippi. The dry sand prairie predominates, but a small wetland and woodlands along the half-mile of Mississippi River frontage, and agricultural fields are found on this 220-acre natural area.

Benefits realized through the Pollution Prevention/Sustainability approach:

- Remedy selection involved enhanced environmental outcomes, including resource protection and a minor cleanup that otherwise would most likely not have been conducted.
- Contribution to a system of nature preserves in Minnesota that offers the highest amount of legal protection for native land in the state and that aims to protect natural features, rare species and habitats. No development is

permitted except that which is necessary for protection, research, education and interpretive purposes.

- Gave control of a significant natural resource to the DNR, ensuring proper management and additional habitat as the portion once in agricultural use turns wild again.

Keys to Success

- Interagency communication: Minnesota DNR confirmed MPCA staff suspicions that a river terrace owned by a farmer who had accepted refinery wastes was a prairie remnant within the Twin Cities metropolitan area.
- Cooperation among the responsible party, the EPA, Minnesota Remediation Program and Minnesota DNR staff to arrange the first supplemental environmental project (SEP) in the nation that has involved conservation of a natural area. (Most SEPs require settling parties to install enhanced pollution-control or -prevention equipment.)
- Perseverance, knowledge of surrounding natural resources and forward thinking from a single remediation program staff member created the momentum for the DNR and responsible party to buy in to the idea of using the now-protected property as part of the approved response action. Knowing about the unique habitat in the vicinity of the impacted site, the regulatory staff were prepared to respond during negotiations over difficult cleanup scenarios with a vision in mind, leveraging the process of remedy selection and feasibility studies in favor of resource replacement. (Mississippi River sediments had been impacted at the Minnesota site.)

Regulatory Administrative/Legal Tools:

- Legally binding agreements
- The federal Superfund's Natural Resource Damages (NRD) provisions promote restoration or replacement of habitat. Although this property transfer could probably have taken place under the NRD, it ultimately took place as part of a SEP. The responsible party can propose SEPs as part of the negotiating process that sets a penalty for compliance violations. Because the Minnesota DNR had already done a resource assessment of the site, the petroleum company preferred not to undertake the extensive and costly assessment required under the NRD provisions. Alternatively, the parties agreed that a SEP was a feasible alternative.

Recognition: Debt of gratitude for the photo and background information and recognition go to staff at the Minnesota Department of Natural Resources