

Arbor Lake Watershed Project Annual Review

September 27, 2004

1:00 Pm

Arbor Lake Park Shelter
on Marvin Avenue

(in case of rain - Grinnell City Council Chambers
3rd floor Community Center, 927 4th Avenue)

Agenda

- | | |
|------|--|
| 1:00 | Welcome and Introductions |
| 1:15 | Project Background |
| 1:30 | Project Activities and Expenditures 2004 |
| 2:00 | Questions |
| 2:15 | Tour Practice Sites |

319 Arbor Lake Watershed Project Budget for Fiscal Year 2004
(October 1, 2003 - September 30, 2004)

Component	Project Allocation	Obligated Project Cost	Obligated Landowner Cost	Project Expenditure	Project Funds Available
Supplies	\$ 500.00			\$ 182.31	\$ 317.69
I&E *	\$ 4,000.00	\$ 3,000.00		\$ 273.85	\$ 726.15
Sub Totals	\$ 4,500.00	\$ 3,000.00		\$ 456.16	\$ 1,043.84
Riffle/Pools	\$ 32,375.00	\$ 32,375.00	\$ 10,791.00		\$ -
Interceptors	\$ 50,000.00	\$ 50,000.00	\$ 16,667.00		\$ -
Native Planting	\$ 11,000.00	\$ 11,000.00	\$ 2,750.00		\$ -
Wetland	\$ 8,875.00	\$ 8,875.00	\$ 2,958.00		\$ -
Sub Totals	\$ 102,250.00	\$ 102,250.00	\$ 33,166.00	\$ -	\$ -
Totals	\$ 106,750.00	\$ 105,250.00	\$ 33,166.00	\$ 456.16	\$ 1,043.84

*((\$3,000) is considered obligated for a construction site erosion control demonstration to the Grinnell/Newburg High School but application is not made

Arbor Lake Watershed Project

Poweshiek County Soil & Water Conservation District

Fertilizer Demonstration FY2003

Fertilizer Trail Description:

Purpose: to compare the effect of applied phosphorus at different rates to untreated lawn.

Treatments applied: 1. Scott's Fertilizer 29-3-4 at the full recommended rate (2.5oz/plot)
2. Scott's Fertilizer 29-3-4 at half recommended rate (1.2oz/plot)
3. Greenlawn Fertilizer 25-0-10 at full recommended rate (2.5oz/plot)
4. Control, No fertilizer was applied

Each plot was 5 ft X 10 ft. Each set of plots contained 4 plots with the above treatments. The corners of each plot are marked with yellow tent stakes.

Objectives:

1. Monitor vegetation growth by observation (color, thickness). Bring visual differences or lack of differences to the attention of the public.
2. Monitor rain water run-off using IOWATER protocols for pH, Nitrite (NO₂), Nitrate (NO₃), Phosphorus (P), and color. Color will be used to estimate soil loss with rain water run-off. Data will be available to public.

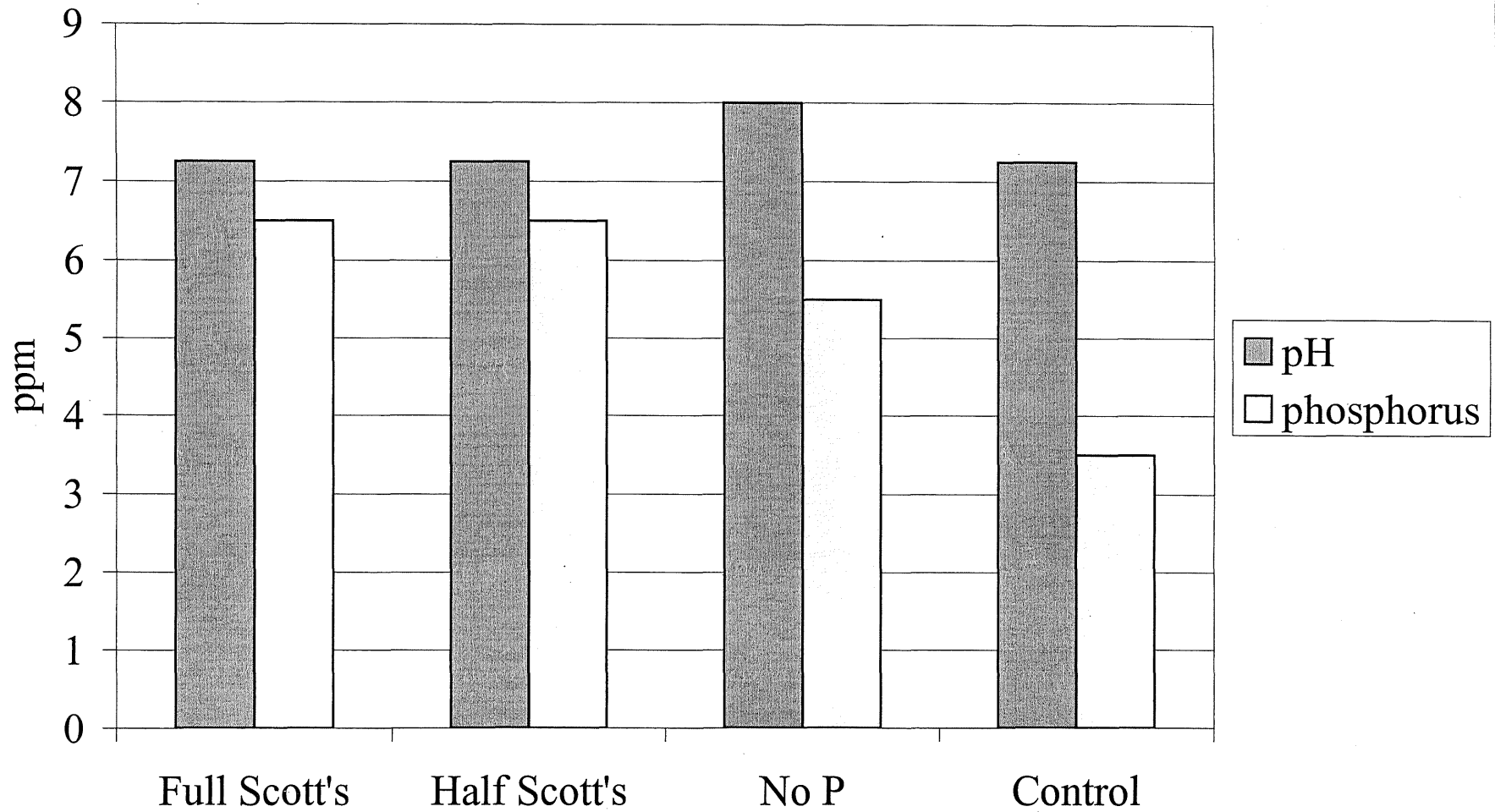
Methods:

Three sets of plots were established on June 26, 2003. The sets were located to represent tree areas at the cemetery side slope, toe slope, and along the creek. The location was also picked to allow rain water to flow down slope into a collection container. The lawn was in uniform condition on the establishment date. A V was shaped and installed of lawn edging (black plastic type with no seams). It was installed by digging a small trench with a spade and placing the edging into the trench. The trench was then filled to hold the edging upright at ground level. The collection container was placed in the center of V at ground level. The collection container was a small water bottle with the top cut off to form a cup.

Fertilizer was applied to the plot 4 times during the two years of testing: June 26 and October 21, 2003 and May 14 and July 1, 2004. On June 3, 2004, it was decided to limit tests to pH and phosphorus because these were the factors of interest to the demonstration along with visual differences in plots. There had been little difference in nitrogen levels between the plots. Color also did not appear to have any significance either.

During the second year (2004) I wondered if the presence of bugs and grass clippings in the water collection cup influenced the test results. After comparing data of samples with and with the materials, it was concluded that they had no influence.

Fertilizer Demonstration:
Average pH and Phosphorus Levels for 2004





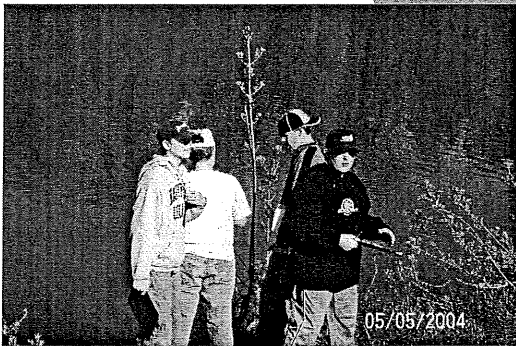
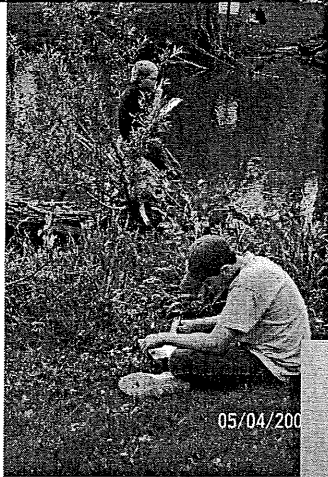
New Storm Sewer outlet between
apartment building and swimming pool
parking lot. Spring 2003



New Storm Sewer outlet summer
2003



New Storm Sewer outlet fall 2003



Grinnell Middle school 7th grade outdoor
classroom
May 4 & 5, 2004

- ✧ Prevent erosion of bare soil and stock-piles with mulch, fast-growing grasses or plastic sheeting, and install erosion protection devices or structures
- ✧ Do not remove trees or shrubs unnecessarily and work outside the tree drip-line. They help decrease erosion

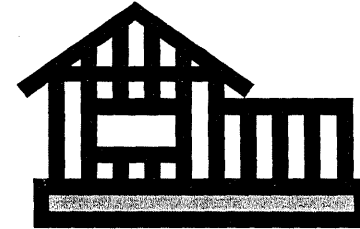
Handling Materials and Wastes

- ✧ Practice source reduction Minimize waste when ordering materials
- ✧ Use recycled and recyclable materials wherever possible
- ✧ Never bury waste materials or leave them in the street
- ✧ Dispose of all waste properly. Materials such as solvents, water based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Non-recyclable materials must be taken to an appropriate landfill or disposed of as hazardous waste. Use a crushing company to recycle cement, asphalt, and porcelain rather than taking them to a landfill.

These are only a few suggestions to help protect Arbor Lake during construction or landscaping.
For More Information Contact:

Arbor Lake Watershed Project
Poweshiek Soil & Water Conservation District
P.O. Box 216
Malcom, Iowa 50157
641-528-2065

Storm Water Runoff



Construction Site Best Management Practices for Arbor Lake

The Arbor Lake Watershed Project was developed by Imagine Grinnell and is administered by the Poweshiek Soil & Water Conservation District. Funding is provided in part by the Iowa Department of Agriculture and Land Stewardship-Division of Soil Conservation and by the Iowa Department of Natural Resources under a Federal Non-point Source Management Program (Section 319 of the Clean Water Act). Technical Assistance is provided by the USDA Natural Resources Conservation Service.

The US Department of Agricultural (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political belief, sexual orientation, and marital or family status.

Arbor Lake BMPs



Legend

- re-rock_path
- watershed boundary
- outletstab1
- 2005_SSI
- 2004 SSI
- 2outlet_slab
- north_wetland
- east_wetland
- underpipe_SS
- filterstrips
- riffle_pools
- wetland
- HudsonPrairie



3000

0

3000

6000 Feet