Potential BMP/Improvement

LOW IMPACT LAWNS

Results of Implementation

Reduce Nitrogen by 20%

Eligible Sites: 1 & 9

LOW IMPACT LAWNS

This means managing your lawn to use the least amount of water, fertilizer and herbicides possible. Plant native grass species that grow well in your local climate. Have your soil tested to find out the amount of fertilizer that is truly necessary for your lawn.

Potential BMP/Improvement

ANIMAL WASTE MANAGEMENT SYSTEM

Results of Implementation

Reduce Nitrogen by 75%

Eligible Sites: 2

ANIMAL WASTE MANAGEMENT SYSTEM

Animal waste management systems are practices designed for proper handling, storage, and utilization of wastes generated from confined animal operations and include a means of collecting, scraping or washing wastes and contaminated runoff from confinement areas into appropriate waste storage structures.

Potential BMP/Improvement

ROOF GARDENS

Results of Implementation

Reduce Sediment by 25%

Eligible Sites: 1,6,& 9

ROOF GARDENS

Roof gardens are part of a low impact development strategy that help capture and utilize rainwater. A shallowly depressed landscape area is designed to capture runoff from roofs, driveways and other impervious surfaces. Water is captured in the garden where it is held for a short period of time (no more than two days) until it naturally infiltrates into the surrounding soil or is utilized by plants. These gardens are planted with water-tolerant flowers, shrubs and grasses. They make use of perennial vegetation because the root systems of these plants allow for better infiltration of the soil and help hold the soil in place.

Potential BMP/Improvement

SILT FENCING

Results of Implementation

Reduce Sediment by 40%

Eligible Sites: 5

SILT FENCING

A silt fence is a temporary sediment control device used on construction sites or in other areas of disturbed land to protect water quality in nearby streams, rivers, lakes and seas from sediment in stormwater runoff and allow for re-vegetation or permanent soil stabilization to begin. They are simple and low cost, but their effectiveness in controlling sediment can be limited due to problems with poor installation, proper placement and/or inadequate maintenance.

Potential BMP/Improvement

RESTORED RIPARIAN BUFFER ZONE

Results of Implementation

Reduce Nitrogen by 25%
Reduce Sediment by 50%

Eligible Sites: All

RESTORED RIPARIAN BUFFER ZONE

A riparian buffer zone is a designated and protected section of vegetation and habitat along streams, creeks, lakes and wetlands. Buffer zones are an important conservation tool to filter storm water runoff, provide wildlife and fish habitat and protect water infiltration zones.

Potential BMP/Improvement

RAIN GARDEN

Results of Implementation

Reduce Nitrogen by 25%
Reduce Sediment by 50%

Eligible Sites: 6,& 9

RAIN GARDEN

Rain gardens are shallow excavated depressions designed to collect stormwater runoff from roofs, pavements, sidewalks and other impervious surfaces. They serve as a natural filter that temporarily stores the runoff, filters it and then releases it over a period of time. Rain gardens also slow down the speed of rainwater which lessons the impact of runoff on soil erosion. The can utilize man-made filtration systems or make use of native plants and rock or soil formations.

Potential BMP/Improvement

COVER CROP

Results of Implementation

Reduce Sediment by 50%
Reduce Nitrates by 50%

Eligible Sites: 3 & 4

COVER CROP

Cover crops can reduce nutrient losses to watersheds by scavenging nitrates that would otherwise be lost to leaching. In addition, cover crops reduce sediment and phosphorus losses to nearby waterways by acting as a vegetative buffer to slow down surface erosion and increase water infiltration. By using cover crops, farmers can provide environmental benefits while also providing other on-farm benefits, including increased soil health, improved water retention, and increased yield.

Potential BMP/Improvement

WASTE WATER TREATMENT REGULATIONS

Results of Implementation

Reduce Nitrogen by 40%

Eligible Sites: 1 & 7

WASTE WATER TREATMENT REGULATIONS

Increased inspections and maintenance of existing septic systems and encouraging repairs to failing systems will help manage waste water treatment. Expansion of existing treatment plants can also help manage overflow of systems that are too small to accommodate the load and demand. Incentive programs and/or insurance programs can be added to encourage private citizens to maintain their systems.

Potential BMP/Improvement

OFF STREAM WATERING TANKS AND ALTERNATIVE SHADE

Results of Implementation

Reduce Sediment by 90%
Reduce Nitrogen by 50%

Eligible Sites: 2 & 8

OFF STREAM WATERING TANKS AND ALTERNATIVE SHADE

Off-stream watering tanks reduce the time animals spend at the stream under small acreage grazing conditions. An animal-operated pasture pump that pulls water from the creek can be installed. Animal productivity increases while protecting the riparian area. Planting shade trees away from the water and away from the stream bank will also help streambank stability and allow for the riparian vegetation zone to improve.

Potential BMP/Improvement

LIVESTOCK STREAM CROSSING

Results of Implementation

Reduce Sediment by 50%

Eligible Sites: 8

LIVESTOCK STREAM CROSSING

Providing livestock with a controlled stream crossing will allow for them to drink or cross at managed points and reduce random trampling of stream banks and decrease the risk of animal injury. Farmers can install fencing that directs animals to a controlled access point. The access point can be covered with coarse gravel to provide the animals firm footing and discourage wallowing.

Potential BMP/Improvement

EDUCATION CAMPAIGN

Results of Implementation

- **Reduce Hazardous substance by 15%**
- **Reduce Sediment by 15%**
- **Reduce Nitrogen by 15%**

Eligible Sites: All

Iowa Agriculture Literacy Foundation

EDUCATION CAMPAIGN

Communities could inform their residents about the potential hazardous effects of runoff including nitrates, sediment and hazardous chemicals. Materials could be provided on water quality and best practices for reducing water runoff. Materials could also be provided for the proper handling, storage and disposal of chemicals.

Potential BMP/Improvement

CHEMICAL WASTE DISPOSAL PROGRAM

Results of Implementation

Reduce Hazardous substance by 25%

Eligible Sites: 10

CHEMICAL WASTE DISPOSAL PROGRAM

The municipality can form a partnership with private sanitary services or environmental service groups to help collect hazardous wastes. These ventures are costly and so would need to be set up in a way that the private group could take over the administrative planning and implementation after the launch of the program. The hazardous waste program would likely be selective of only certain chemicals that could be properly disposed of through incineration.