

Segment: North Dakota to Thackeray



1. Tree Filter Strips: South Side of Stream (Mimi Wagner, design)

Purpose: Several lines of trees and shrubs were planted to filter nutrients from College Creek. A turf grass section separates the filter. A native prairie area was planted on the south side of the filter strip.

Maintenance: Pat Sauer and Jake Moore met with Mimi Wagner 8/29/14 to inspect the filter strips and prairie area. Pat and Mimi did a follow-up inspection and flagged trees to be removed. Where there are clumps of trees and only 1 has been flagged, remove all of the trees in that clump. There are several clumps of ash trees where only one stem was flagged. The idea behind the filter strips is to allow the tree canopies to grow together. Mowing can be discontinued between the rows of trees. Low hanging branches should be removed to make it easier to maintain the mowed turf along the outside edge of the outside filter strip. There are some weeds to be sprayed as well. The vegetation beneath the trees should be monitored over time. If soil is not vegetated and erosion is occurring—some selective removal of trees may have to occur.

The prairie area south of the tree filter strips should be brush hogged at the end of each growing season. Tree suckers may have to be pruned out at and treated with Tordon. Thistles will have to be spot sprayed when they are small along with other weeds. **Parks and Rec will perform this maintenance. Assistance may be provided by ISU student groups.**



2. Rip Rack Section near opening on Thackeray:

Purpose: Provide bank stabilization and soil protection

Maintenance: Trim out tree suckers and treat with Tordon. Trim out and treat weeds. Fill gaps that contained compost with topsoil and reseed with a native prairie mix of low-growing species. **Parks and Rec will perform this maintenance. Public Works will recommend a seed mix.**



3. Native Prairie Grass Buffers/Filters:

Purpose: Provide deep rooted prairie vegetation to stabilize the stream bank, provide habitat and visual aesthetics.

Maintenance: A few forbs (prairie flowers) have become established amongst the native prairie grass buffer. They can remain. The prairie vegetation should be burned once per year or every other year to control weeds and woody- tree invasion. Thistles

and creeping Charlie along with other weeds need spraying several times during the growing season with a broadleaf herbicide prior to flowering. All thistles shall be sprayed when small-earlier in the growing season. Short-growing forbs could be interseeded amongst the grasses, especially in areas with bare soil or areas that were sprayed for thistles and killed off grasses near-by. Tree suckers should be pruned out and treated with Tordon. All pampus grass shall be cut down and sprayed. That area will have to be replaced with native grasses. **Discontinue mowing the medium height grasses in the flood bench. Parks and Rec staff will perform the maintenance. Public Works will recommend a seed mix.**

4. Stream Edge Vegetation:



Purpose: Provide streambank protection from erosion.

Maintenance: Some areas are inundated with reed canary grass. The grass provides protection but is very invasive. Consult an ISU Extension specialist for recommendations on management. Encourage the continued growth of arrowhead in stream segments for species diversity. This area can be burned on an annual basis but not right up to the stream edge. Care should to given when spraying thistles or other weeds near the stream edge to not contaminate the creek. **Parks and Rec staff will perform the maintenance.**

5. Tree and Bush Strips on North Side of Creek



Purpose: Filter nutrients and provide habitat and aesthetics

Maintenance: Some trees and bushes in the future may need to be selectively removed to make room for trees and bushes that remain. There are large older trees that when or if they are removed would be replaced by one or more the young oak trees in the strips. There are some weeds and clumps of ash small ash trees that need to be removed. Most of the ash trees should have been flagged. Weeds such as creeping Charlie, tree foil, and thistles need to be sprayed early in the growing season. **Parks and Rec staff will perform this maintenance.**

6. Tree Wells North and South of Creek



Purpose: Protect tree roots

Maintenance: These areas are planted to low-growing native grasses such as buffalo grass. Weeds should be spot sprayed and pulled. Sucker trees should be removed and treated with Tordon. This will have to be done several times during the growing season. Spot spray only due to close proximaty to stream. **Parks and Rec will perform this maintenance.**



7. Rip Rap Areas Near Outfalls and Drainage Areas East Side of Project

Purpose: Provide Erosion and Streambank Stabilization Control

Maintenance: Some of these areas were filled with compost or peat moss grout and seeded with native grasses. The seed never took. The void areas could be filled with topsoil and reseeded with a native prairie mix. Weeds and saplings will have to be treated and some removed. Spot spray only due to close proximity to stream. **Parks and Rec staff will perform this maintenance. Public Works will recommend the seed mix.**



8. Open Cool Season and Warm Season Grass Areas

Purpose: Provide a buffer to filter nutrients from runoff as well as habitat.

Maintenance: Thistles, trefoil, pampus grass and creeping Charlie seem to be a common weed that must be treated several times throughout the growing season especially prior to flowering. These species are highly aggressive and must be kept under control. **Parks and Rec staff with perform this maintenance.**



9. Signs Along Trail

Purpose: Educate residents on the practices and College Creek.

Maintenance: Update with poster that highlights the benefits and maintenance of practices. **Public Works can create a poster and provide that to Parks and Rec.**

10. Mowed Cool Season Grass areas.

Purposed: An aesthetic edge and fire buffer.

Maintenance: Continue to mow. Spray for weeds especially creeping Charlie. **This maintenance will be performed by Parks and Rec staff.**



Schedule

Activity	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Mowing cool season grass buffer				x	x	x	x	x	x	x		
Scouting vegetation				x		x		x		x		
Tree filter strips Remove unwanted trees	x	x	x	x	x	x	x	x	x	x	x	x
Native grasses and flowers (forbs) prescribed burns			x	x							x	x
Weed Treatment				x	x	x	x					
Invasive trees				x		x		x		x		
Rip Rap soil and or compost and reseeding fall-dormant seeding or spring seeding			x	x	x						x	x