

Table 14 - Turf Grass & Alternative Landscaping Implementation Plan Elements and Schedule

Plan Elements	NPS Category Elements	Target/ Milestone	Completion Dates
1. stakeholders	<ul style="list-style-type: none"> - Those who create, develop, manage and maintain turf grass and landscaped areas including but not limited to: landscapers, nurserymen, horticultural growers, builders, developers, educators, decision makers, legislative bodies, road commissions, MDOT, homeowners, municipalities, institutions, golf courses and related associations - Those who provide services and products to the above: landscape architects, consultants, education and information sources, retail and wholesale outlets, lawn care businesses 	<ul style="list-style-type: none"> - Working tables/contact information (IP) - Identify NPS collaborations (IP) 	<p>March-April 2002</p> <p>Ongoing</p>
2. regulations	<ul style="list-style-type: none"> - MI Act 451, Part 91, Soil erosion laws - MI DEQ land/water interface regulations (Part 301, Inland Lakes and Streams, Part 325, Great Lakes Submerged Lands, Part 303, Wetlands Protection, Part31 Water Resources Protection, Part 315, Dam Safety) - Standards of good practice within industries - Phase II storm water regulations - County and local municipal zoning regulations and ordinances - Drain Commissioners - Local “nuisance ordinances” for vegetation - City of Kalamazoo Ordinance for Alternative Vegetation (sample) - EPA-approved TMDL (NPS Load Allocation) - MDEQ, NRCS & other agencies BMPs 	<ul style="list-style-type: none"> - Existing - Identified target - Completed 	<p>May 2002</p> <p>Ongoing</p>
3. goals	<ul style="list-style-type: none"> - 50% reduction over 1998 levels - Track implementation of BMPs and related reductions quarterly throughout the year - On ground examples for tracking and viewing - Promote expanded use of alternative landscapes - Promote appropriate application of phosphorus in turf grass (Encourage individual reductions; collective reduction...accountability structure and consequences...) 	<ul style="list-style-type: none"> - Analyze (IP) - Identified target - Identified target 	<p>May 2002</p> <p>Seasonal & Year-round</p>

4a. ongoing efforts	<ul style="list-style-type: none"> - Grant-funded projects related to reductions of erosion, stream bank restorations, wetland improvements, etc. - Cooperation of retail outlets and lawn care providers to offer low/no phosphorus fertilizer - Changes in golf course and institutional turf management practices - Phase II storm water efforts - Super Soils Day - Multiple websites for information - Current activities and programs of multiple partners (see attached) - Educational efforts, current and proposed (see Tables 14a & 14b) 	<p>Completion of existing projects and evaluation of outcomes</p> <p>Additional projects expected to follow with attendant evaluations</p>	<p>March 2002- March 2004</p> <p>Unknown</p>
4b. recommendations by NPS Categories	<ul style="list-style-type: none"> - Increase length, width and number of buffer strips along water courses incorporating native species - Reduce residential use of fertilizers with phosphorus (P), especially riparians - Education, Education, Education - Make low/no P fertilizers available options at retail outlets - Application of principles to County Drains where appropriate - See details in Tables 14a & 14b 	<p>Evaluation of adopted alternative techniques with resultant improvements</p>	<p>May 2002-ongoing</p>
5. funding resources	<ul style="list-style-type: none"> - Surcharge for high P fertilizers - Internal savings recouped from lower material and maintenance costs - Grants for innovative technologies or for research - Ecomarket approaches (trading) - Municipal matches - Grants for site improvements via larger scale alternative landscaping - County Drain assessments 	<p>Implement and evaluate for positive impact through 5-year period</p>	<p>May 2002-ongoing</p>
6. program resources	<ul style="list-style-type: none"> - EPA, MDEQ, NRCS, Cooperative Extension, Conservation Districts, Kazoo Nature Center, NPOs, municipalities, Drain Commissioners etc. - Suppliers of native seeds & vegetation - Internet information from around the country - Private sector - Grants/Demonstration projects (see Tables 14a & 14b) 	<p>Part of Implementation Plan</p>	<p>May 2002-ongoing</p>
7. cost optimization	<ul style="list-style-type: none"> - Individual NPS determinations of services & materials (who can do it best/lowest cost) - Evaluate internal savings/revenue enhancement potential - Feasibility studies/pilot programs 	<p>Begin with demonstrations and move toward acceptance as normal techniques</p>	<p>Ongoing</p>

8. data gaps	<ul style="list-style-type: none"> - Timing (periods) of most significant loading - “Background” or baseline documentation of contributions from turf within particular reaches of a waterbody - Phosphorus sampling requirements (locations, frequency) - Costs to implement controls to reach 50% reductions - Future growth needs - Tracking of successful techniques already implemented locally - Difficulties establishing alternative landscapes 	<p>Fill in gaps during 5-year period</p> <p>Increase in data to determine efficacy</p>	May 2002-ongoing
9. accountability structure	<p>(Accountability/Consequences)</p> <ul style="list-style-type: none"> - NPS structure (voluntary, formal, fee,) - Overall watershed responsibility - Role of TMDL steering committee - MDEQ 	<ul style="list-style-type: none"> - Identify options (IP) - Identify options (IP) - Implement 	<p>May 2002</p> <p>May 2002</p> <p>March 2003</p>
10. reporting	<ul style="list-style-type: none"> - Annual reporting for Voluntary Agreement - Interim reports (quarterly summaries...organizational structure?) - Reports prepared for relevant specific projects 	<ul style="list-style-type: none"> - Annual report 	<p>March 2002</p> <p>December 2002 and throughout 5-year period</p>
11. timeline	<p>(implementation elements, reporting, reduction goals)</p> <ul style="list-style-type: none"> - Some activities are already in progress 	<p>(IP)</p> <ul style="list-style-type: none"> - Annual updates; many conceptual projects without timelines 	May 2002 and as needed
12. tracking	<ul style="list-style-type: none"> - One database for all of TMDL process (web-based) - Individual/voluntary - QA/QC (standardized procedures) (Delegate TMDL Committee for organizational responsibility structure) 	<ul style="list-style-type: none"> - Framework drafted (IP) 	Ongoing
13. monitoring	<ul style="list-style-type: none"> - River/lake monitoring, (MDEQ/ other) - Database maintenance and accessibility (<i>responsibility?</i>) - Data analysis (<i>responsibility</i>) - QA/QC 	<ul style="list-style-type: none"> - April-Sept. (DEQ report) - Increase in-lake/in stream monitoring - Reporting & availability of results 	<p>Dec., Annually</p> <p>Ongoing</p>
14. contingency plan	<ul style="list-style-type: none"> - Restrictive regulation on P sales - Mandatory reduction approaches if data suggests current implementation elements are not making improvements - 5-year plan considerations if goals are not met - Long-range plans that will accommodate new growth 	<p>(IP)</p> <ul style="list-style-type: none"> - Strategy - Strategy - Strategy 	<p>May 2002</p> <p>March 2003</p> <p>March 2004</p> <p>March 2006</p> <p>March 2008</p>

15. updating strategy	- Through TMDL committee/authority; assess effectiveness of goals implemented at least annually and adjust strategy as acceptable to community (still to determine timing of reports/reviews/updates...yearly, 5 years?)	- Annual Reports - link to 5-year permit cycle?	(each December?) Dec. 2004
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