

Table 9. Land Use -Management Implementation Plan Elements

| Plan Elements | NPS Category Elements | Target/ Milestone | Completion Dates |
|---------------------|--|---|---|
| 1. stakeholders | Municipalities, business professionals, municipal planners, development bodies, private developers, environmental groups and institutions. Will also involve other NPS groups as appropriate (e.g., sub-basins, transportation, construction and agriculture) | Two initial meeting(s) w/ watershed wide representation | November 2001 and May 2002 |
| 2. regulations | <ul style="list-style-type: none"> - Local zoning plus land-use regulations and ordinances - State and Federal laws pertaining to land use and related impacts | <ul style="list-style-type: none"> -Compile reference database -Gather and present options used in other communities for progressive and effective land use | September 2003 June 2002-June 2004 |
| 3. goals | <ul style="list-style-type: none"> - Pursue “Smart Growth” concepts for adoption by stakeholders - Make tools available that evaluate net phosphorus load of a watershed land use decision - Provide and utilize demonstration projects that employ Conservation Development techniques - Build upon existing work such as “Convening for Action” - Expand educational outreach - Develop user-friendly tools for site-specific relationship of P loading to minimum performance goals - Establish economic incentives for desired voluntary watershed improvements | <ul style="list-style-type: none"> -Ongoing at multiple levels -Support for demonstration from CH2MHill/K&A -Use 1-3 existing, completed projects and 1-3 new, large proposed projects -Make data available at websites and meetings | Throughout project June 2002-January 2004 July 2002-2005 2002-2005 |
| 4a. ongoing efforts | <ul style="list-style-type: none"> - City of Kalamazoo revised Site Plan Review process - Other Site Plan Review processes - Brownfield redevelopment efforts - “Convening Our Community” project www.kzoo.edu/convene - MDEQ compliance and regulatory efforts - Demonstration projects in watershed - Institutional outreach efforts - Private developments with Smart Growth concepts (limited) | <ul style="list-style-type: none"> -To provide better evaluation tools for municipalities & proposers; feedback and evaluation results -Website and community feedback -CH2MHill to customize WISE model & other tools for Kalamazoo Basin | May 2002 Ongoing 2003-2004 |

| | | | |
|-------------------------------------|---|---|---|
| 4b. recommendations by NPS Category | <ul style="list-style-type: none"> - Pursue demonstration sites with K&A, CH2M Hill - Attempt consistency for approaches across political boundaries within the watershed - Promote all successes - Maintain strong and diverse partnerships to achieve desired goals - Promote simple ideas and “solutions” as well as larger more complex options | <ul style="list-style-type: none"> -Select 1-3 sites by summer 2003, then on to others -Use existing watershed plans -Web site and education materials -Best bang for the buck approach | <p>Ongoing through 2004</p> <p>Maintain actions at consistent pace based on financial capabilities through 2006</p> |
| 5. funding resources | <ul style="list-style-type: none"> - Local, State, Federal and private sources for grants and other funding opportunities - Voluntary trading programs - generation of “credits” for sale - Municipal general funds - Special assessments - Private sector investments - Operation and maintenance budgets | <p>Establish “trading clearinghouse” and appropriate mechanisms</p> | <p>May 2002 and through 2015 as needed</p> |
| 6. program resources | <ul style="list-style-type: none"> - Tools available through CH2M Hill (PLOAD, WISE, Concept Review Management System [CRMS], Web WISE) - Materials generated through “Convening Our Community/Convening for Action” - Information at www.kalamazooriver.net - Institutional materials through MSUE, WMU, etc. - Shared information and experiences among partners | <ul style="list-style-type: none"> -Produce functional and viable tools for use in the watershed -Successful application of tools -Periodically update and track use of information sites | <p>May 2002-2004</p> <p>2004-ongoing</p> <p>2003-ongoing</p> |
| 7. cost optimization | <ul style="list-style-type: none"> - Voluntary programs, such as Water Quality Trading and Conservation Development - Use existing, designated funds wherever possible for repairs and maintenance to implement alternative concepts | <p>Track initial investment(s), returns, operating costs of alternatives with more traditional methods</p> | <p>2003-ongoing</p> |
| 8. data gaps | <ul style="list-style-type: none"> - Planning tools and techniques currently in use locally do not link land uses (or changes) to phosphorus (P) loading - No easy existing way to compare net P impact of two alternative site proposals - No easy way to estimate cumulative impacts of multiple land use changes on net P loads - Lack of good baseline data for P loads - Outside of site plan reviews, there is no sense of a mandate that something will change - Local illustrations (case studies and demonstrations) needed of how Conservation/Water Quality Trading Credits can work | <ul style="list-style-type: none"> -Develop/promote tools that link P loads with land uses -One to three retrospective and new demonstration sites -Develop clearinghouse of baseline data -Successful ventures with municipalities and developers to accomplish the demonstrations | <p>2003-2005</p> <p>2003-2004</p> <p>2003-2004</p> <p>2003-2004</p> |

| | | | |
|-----------------------------|--|--|---|
| 9. accountability structure | <ul style="list-style-type: none"> - Track number of successful demonstration projects (P reductions) - Adoption of techniques by new development other than demonstration site - Acceptance of approach by local municipalities - Project Reports documenting costs/benefits to Implementation Committee - Monitored efficacy of approach(es) | <ul style="list-style-type: none"> -Implementation Plan -Successful ventures with municipalities and developers to accomplish the demonstrations -Decreased P loading from project sites | <p>2002-2004 2003-ongoing</p> <p>2005-ongoing</p> <p>November 2002</p> |
| 10. reporting | <ul style="list-style-type: none"> - Shared required grant reports, if any, with the Implementation Committee - Voluntary update reports as needed to the Partners involved and Implementation Committee - MDEQ to share any reports pertaining to project area | <ul style="list-style-type: none"> - Quarterly/Annual reports - Biannual evaluations | <p>2003-ongoing</p> <p>2003/4- ongoing as needed</p> <p>Ongoing</p> |
| 11. timeline | <ul style="list-style-type: none"> - Select and reach approval on case study projects - Conduct evaluations as described - Prepare Phase 3 CH2MHill Workplan - Implement techniques to advance TMDL plan | <ul style="list-style-type: none"> -Number of viable sites willing to participate -Provide to partners -1-3 test sites completed | <p>Jan./Feb. 2003</p> <p>Jan. 2003-Sept. 2003</p> <p>2004</p> |
| 12. tracking | <ul style="list-style-type: none"> - Note any alterations to Site Plan Review processes - Number of land use projects in the watershed impacted by concepts presented in this plan - Increase in educational efforts/materials with this approach - Adoption of techniques by watershed partners | <ul style="list-style-type: none"> -Municipalities, developers, etc., implement land use actions consistent with this plan -Frequency and speed of adoption are keys | <p>Ongoing</p> |
| 13. monitoring | <ul style="list-style-type: none"> - Obtain initial P-loading and site characterization under existing conditions for “test” sites - Conduct P load monitoring during activities - Conduct post activity P load monitoring - MSU nonpoint tracking system to track and report P reduction activities - Document with pre-, during and post-activity on-ground and aerial images | <ul style="list-style-type: none"> -Maintain database of all related information to be accessible on a website by any user -Data to be collected from sites of any activity -Track seasonal and total P reductions to meet PS and NPS goals -Track all P reductions (PS and NPS) below 1998 target goals | <p>2002-ongoing</p> <p>2003-ongoing</p> <p>2003-ongoing</p> <p>2003-ongoing</p> |

| | | | |
|------------------------------|--|---|--|
| <p>14. contingency plan</p> | <ul style="list-style-type: none"> - Adopt regulatory mechanisms for achieving water quality goals associated with land use activities - Identify and establish additional positive incentives for desired changes - Target more specific land uses for implementation of techniques with grant funds | <ul style="list-style-type: none"> -Modify Plan as may be required -Implementation Committee to develop contingency options -Focus on positive rather than negative approaches toward improvements whenever possible -Enact contingencies if reductions are not met/achievable by other means | <p>March 2004</p> <p>2003-2005</p> <p>2003-2005</p> <p>2005-2006</p> |
| <p>15. updating strategy</p> | <ul style="list-style-type: none"> - Through TMDL committee/authority (timing of reports, reviews, updates; yearly & 5 years) | <ul style="list-style-type: none"> - Annual Reports - 5-year permit cycle | <p>(each December)</p> <p>Dec. 2005</p> |