



*Friends of Lake Wingra*

Promoting a healthy Lake Wingra  
through an active watershed community



**2003 Lake Wingra Watershed Partners Meeting  
Summary 6/17/03**

Prepared by Laura England for FOLW



## TABLE OF CONTENTS

Executive Summary.....	3
Meeting Description.....	4
Partner Actions	
Compilation of Individual Action Sheets.....	5
Analysis and Discussion of Compiled Data .....	5
Summary of Meeting Discussions and Evaluations	
Partner Feedback on Draft Management Plans.....	15
Discussion of Emerging Trends.....	16
Evaluation of the Meeting.....	16
Appendix 1. Row headings from Partnership Action Building Tables	
Appendix 2. Meeting Participant Information	
Appendix 3. Compiled Data: Individual Action Sheets	

### List of Figures and Tables

Figure 1. Frequency distribution of actions reported by partner category.....	6
Figure 2. Frequency distribution of actions reported by primary action mode.....	8
Figure 3. Frequency distribution of actions reported by action topic.....	9
Figure 4. Frequency distribution of actions reported by Partner Building Table headings.....	10
Figure 5. Proportion of each action mode dealing with specific action topics.....	11
Figure 6. Proportion of partner actions that result in direct, on the ground improvements to the Wingra watershed .....	12
Figure 7. Distribution of FOLW actions by topic and mode .....	13
Figure 8. Proportion of FOLW actions that result in direct, on the ground improvements to the Wingra watershed .....	13
Table 1. Gaps in Lake Wingra watershed protection.....	7
Table 2. Gaps in Lake Wingra watershed protection.....	14



## EXECUTIVE SUMMARY

On April 25, 2003 the Friends of Lake Wingra (FOLW) hosted a meeting of Lake Wingra Watershed Partners. The purposes of the meeting were to obtain feedback from Partners on draft plans for managing stormwater and invasive species and to examine the roles and responsibilities of all Partners in order to coordinate partner actions. Partners expressed support for the values and approaches of the draft management plans, and voiced questions and concerns that will be addressed in the final drafts of these plans.

Over twenty participating Partners (in addition to FOLW) communicated current and planned work through completion of action sheets and tables. Compilation of all partner action information allowed identification of trends in existing partner actions as well as identification of potential gaps in protection of Lake Wingra and its watershed. Results show that neighborhood associations, the City of Madison, and UW are especially active while Partners in the business community and the Town of Madison have not yet been fully engaged in efforts to protect Lake Wingra.

Collective action among Partners focuses most heavily on the topics of stormwater, invasive species and public awareness. The most prevalent modes of Partner action to address these topics include education/outreach, management, and monitoring/research, while less Partner action includes citizen involvement and policy approaches. While stormwater is a main focus of education, demonstration, management and policy actions, stormwater is not a focus of existing monitoring and research. Similarly, though a large proportion of education, management, monitoring and policy actions focus on invasive species there is a lack of demonstration actions addressing this topic. Overall, actions involving recreation on and around Lake Wingra were not a focus of Partner action. More than half of current Partner actions take indirect approaches to achieving improvements in Lake Wingra, while planned and proposed Partner actions reveal a shift to approaches with direct and tangible results.

As an individual organization, FOLW concentrates much of its work on stormwater, invasive species, and public awareness. Education/outreach, demonstration, and management are the modes of action most commonly employed by FOLW in addressing these topics. As in collective Partner actions, citizen involvement and policy approaches are less common in FOLW's work. FOLW's planned and proposed actions also show a similar shift from education/ outreach to actions that will achieve direct and tangible improvements in Lake Wingra and its watershed.

Many of these trends that emerged from quantitative analysis of partner responses were already perceived and noted in discussions at the Partners Meeting. In general Partners were encouraged and impressed by the amount of collective work being done. Several partners voiced the position that Partner work could begin to transition from a focus on community education to a focus on implementation of ideas and plans.

The analyses and observations contained herein examine the scope of all possible actions to protect Lake Wingra and its watershed. Identified gaps may simply be low priority areas rather than areas that need more attention in future work. This report is intended to assist FOLW in identifying potential strategic directions and priorities to facilitate FOLW's ongoing role in communication and coordination of watershed Partners.

## **PARTNER MEETING DESCRIPTION**

FOLW's 2003 Partner Meeting was held on April 25<sup>th</sup> in the Washburn Heritage Room at Edgewood College. Partners were invited several weeks in advance with a mailing that included the following materials:

- FOLW mission, vision, and recent accomplishments
- Draft Stormwater Management Plan
- Draft Management Plan for Invasive Plants and Animals
- Partnership-Building Action Worksheet

The meeting invitation asked partners to review these materials ahead of time if possible, and to be prepared to give input and feedback to assist FOLW in:

- Crafting the final drafts of plans for managing storm water throughout the watershed; controlling the spread of invasive plants and animals; and fostering citizen stewardship among all who live, work, and play in the watershed.
- Examine the roles and responsibilities of all watershed partners in order to communicate and coordinate partner actions.

Jim Lorman opened the meeting with introductions and a reminder of the meeting's purposes and Katharine Odell provided a summary of FOLW's recent accomplishments. PowerPoint presentations summarizing the Draft Stormwater and Invasive Species Management Plans were given by David Liebl and Steve Glass.

The remainder of the meeting was facilitated by Tom Mickelson of ALG Consulting. First, partners were asked to give feedback on 1) what they liked and 2) questions and concerns for each of the draft management plans. Feedback was recorded on flip charts by Sue Ellingson and Laura England. Next, Anne Forbes gave partners instructions on how to fill out the Partner Building Action Tables and Individual Action Sheets. Once partners had completed these worksheets, they were asked to add their actions to the Partner Building Action Tables posted on the walls by placing numbered dots (number corresponds to individual participants) in the appropriate cells. Current actions were distinguished from planned actions by the color of dots (green = current, yellow = planned or proposed). In some cases, participants reported additional actions that were not already listed as row headings on the Partner Building Action Tables. All action row headings are listed in Appendix 1 with additional actions highlighted in grey.

Tom Mickelson facilitated a discussion of trends that emerged from looking at the completed Partner Building Action Tables. Before the meeting was closed, next steps were discussed and participants were asked to complete evaluations of the meeting.

## **PARTNER RESPONSE**

### **Compilation of Individual Action Sheets**

For the purpose of both quantitative and qualitative analysis of feedback provided by participants, all data on the Individual Action Sheets were entered into two spreadsheets. The first spreadsheet (Appendix 2) was set up for participant metadata (participant #, name, organization(s), and contact information). The second spreadsheet (Appendix 3) was arranged to enter actions reported by participants; each row corresponds to a single action and is referenced to an individual partner by the participant #. For each action (row), the following information was entered (column headings):

- Partner category (primary and secondary if applicable)
- Partner organization (primary and secondary if applicable)
- Action item # and letter (from Appendix 1)
- Action topic (e.g. stormwater, lawn care, streets)
- Action mode (e.g. management, education, policy)
- Comments (participant remarks from Action Sheets)

Action topic and mode columns were added so that the spreadsheet could be “queried” or sorted in order to answer specific questions such as, “Which partners are educating the public about lawn care impacts on Lake Wingra?”. In addition, each action was color coded to distinguish current or ongoing actions from planned actions (green = current, yellow = planned, blue = idea or proposed action). Most participants did not indicate whether actions were current or planned on their Action Sheets, so this information was extracted from the Partner Building Action Tables. Several partners who did not attend the meeting were contacted afterwards to obtain information about their work in the Wingra watershed. Watershed resident actions were represented by including results from a 1999 survey that had 370 respondents (*Lake Wingra Watershed: A New Management Approach*, Water Resources Management Workshop, UW-Madison).

Once all data were entered, the spreadsheet was queried to determine the frequency of actions by partner category, action topic and action mode. The goal of this analysis was to quantitatively assess the distribution of actions and to determine areas of watershed protection that are not being addressed collectively by FOLW and its partner organizations. All action items with “individual action” entered in the Action Mode column were excluded from this analysis because they don’t represent actions by partner organizations, but by individual residents. Finally, FOLW actions were extracted and analyzed separately to assess this organization’s coverage of and gaps in watershed protection.

### **Analysis and Discussion of Compiled Action Data**

A total of 264 actions were entered into the Partner Action Spreadsheet. Of these actions, 146 are current (green), 79 are planned or proposed (yellow), and 8 are ideas for action (blue). Individual actions, which comprised 31 of the 264 actions, and the 8 ideas for action were removed before the remaining 225 actions were used in quantitative analyses. One caveat of the

quantitative analyses represented in figures below is that the scale/magnitude of individual actions is not considered. Projects that are large in scale are weighted the same as small scale projects.

The number of actions reported by different categories of watershed partners (Fig. 1) reveals that neighborhood associations, the City of Madison, and UW are particularly active partners for FOLW. The city reported the most current actions, followed by UW and FOLW. Neighborhood associations reported the most planned actions, perhaps reflecting a widespread support among residents for the ideas and goals of FOLW but fewer resources (especially funds and staff time) to implement actions as compared to the city. Data for the Town of Madison is incomplete at this time. The near absence of actions by business partners is a significant result that several meeting participants remarked on.

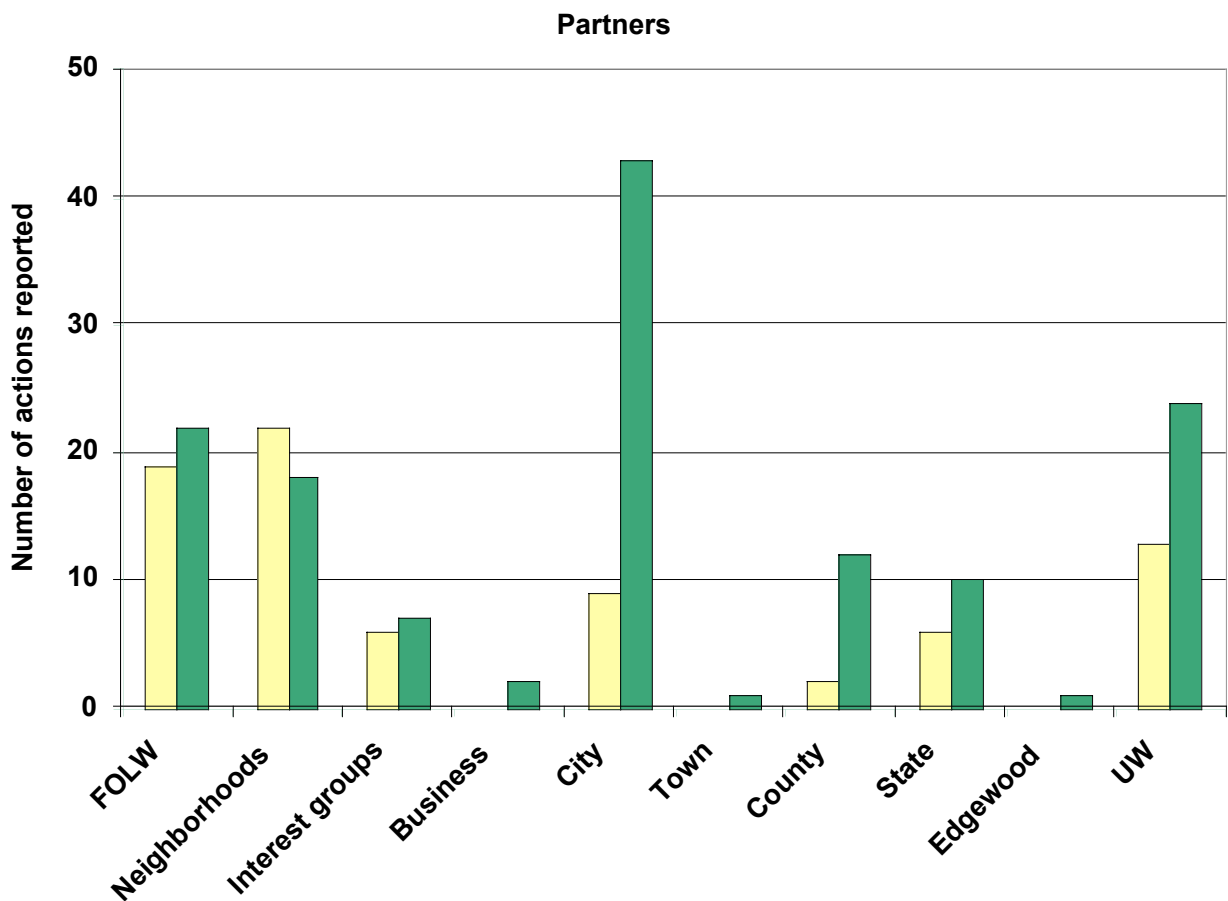


Figure1. Frequency distribution of actions reported by different categories of partners in the Lake Wingra Watershed (green = current actions, yellow = planned/proposed actions).

Seven different modes of action were identified (See Table 1 for mode definitions) and used as categories for assessing watershed protection activities by FOLW and partner organizations. A primary action mode was designated for each reported action, and when applicable a secondary mode was also designated.

Table 1. Definition and description of action modes used to categorize partner actions.

<b>Action Mode</b>	<b>Applies to...</b>
Citizen involvement	Projects, programs, or events that are designed primarily to directly involve watershed residents or the general public in protecting Lake Wingra. Example: Lake Wingra clean-up event (DMNA)
Demonstration	On the ground, small-scale projects that are designed primarily to exhibit the efficacy of a given management or restoration approach. Example: Rain garden street project (FOLW & City of Madison)
Education/ outreach	Projects, programs, or events that are designed primarily to elevate general public awareness of Lake Wingra or about a specific topic related to watershed protection. Example: Informational kiosks in the parks (FOLW)
Management	On the ground projects or practices that are designed to achieve tangible improvements in the condition of Lake Wingra or its watershed. Example: Edgewood marsh purple loosestrife management plan (FOLW, Edgewood College)
Monitoring/ Research	Projects, programs, or events designed to obtain data or to test hypotheses about the condition of Lake Wingra. Example: Beach water quality monitoring (Madison Department of Public Health)
Policy	Projects or programs that are designed to improve compliance with current policies or develop new policies that contribute to protection of Lake Wingra. Example: Enforcement of ordinance that prohibits feeding birds on public property (City of Madison).
Restoration	On the ground projects, programs, or practices that are designed to restore or rehabilitate a degraded area within Lake Wingra or its watershed. Restoration could be considered a subset of management. Example: Shoreline restoration project (FOLW and Dane County)

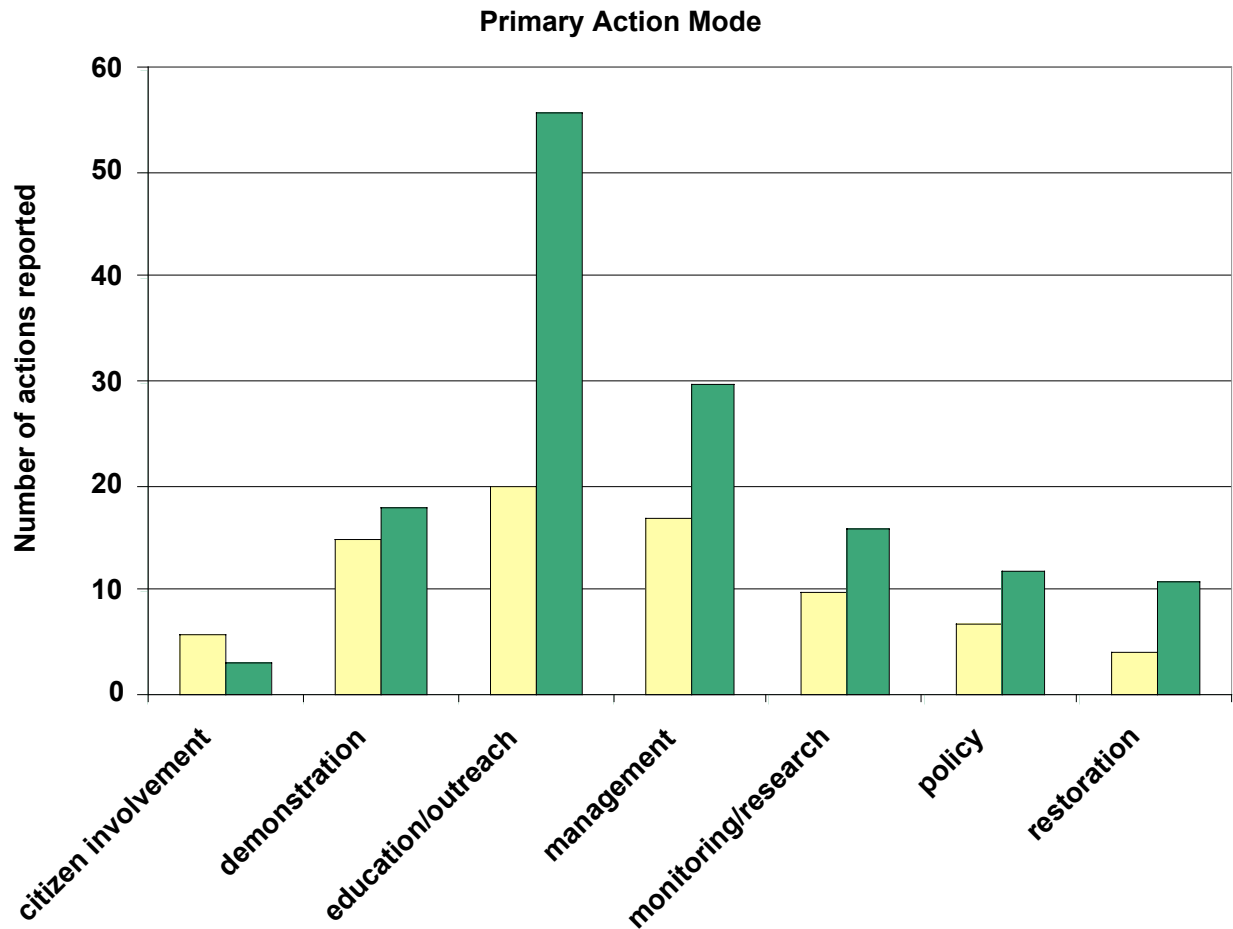


Figure 2. Frequency distribution of primary action modes (green = current actions, yellow = planned/proposed actions).

For both current and planned actions of Lake Wingra partners, the most common primary action modes are education/outreach and management followed by demonstration and monitoring/ research (Fig. 2). Citizen involvement was the least common primary action mode, but was a common secondary mode (22 actions). Thus, Fig. 2 underestimates of the use of citizen involvement in programs and activities of Lake Wingra partners. Nevertheless, Fig. 2 suggests that citizen involvement has not been as high a priority in protection of the Lake Wingra watershed as it could be. Restoration actions are less common than other action modes, but because restoration could be considered a subset of management, it is encouraging that there were as many as 14 actions reported in this sub-category. The number of policy actions reported is relatively small compared to other action modes.

Another gap is actions involving recreation. Lake Wingra's watershed, the shoreline greenspace (Vilas and Wingra Parks, UW Arboretum) and the lake itself are hotspots for recreation in the Madison area. In a 1999 survey (*Lake Wingra Watershed: A New Management Approach*, Water Resources Management Workshop, UW-Madison), watershed residents reported high frequencies of participation in several different types of recreational activities. Increased opportunity for recreation in, on, and around Lake Wingra might increase the feeling of ownership, responsibility and stewardship among watershed residents.



Topical distribution of actions was also examined. Twelve action topics were identified and used to classify reported actions (Fig. 3). A large number of actions focus on upland topics like streets, lawn care, and erosion, demonstrating that FOLW and its partners are collectively implementing a strong watershed approach to protection of Lake Wingra. Partners in protection of Lake Wingra are currently most focused on stormwater, invasives, and public awareness. Similarly, planned actions focus most heavily on stormwater, invasives, and streets. There is quite a bit of overlap and interaction among topics. So although there were fewer actions reported for some topics, these may be indirectly addressed by actions in topics that are being given a stronger focus. For example, though only fifteen actions (current and planned) were classified as directly addressing water quality, the 52 actions in the stormwater topic will ultimately impact Lake Wingra’s water quality as well.

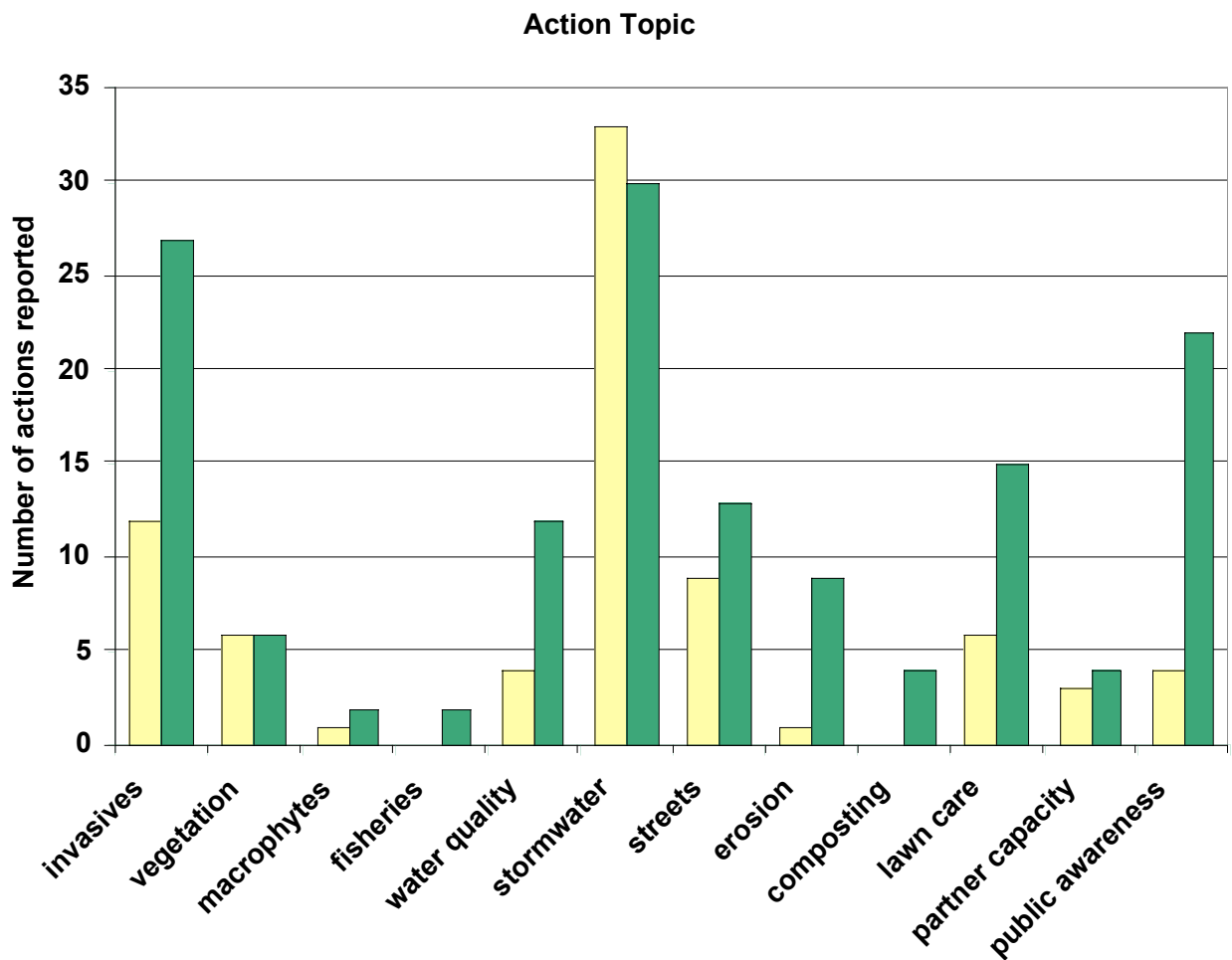


Figure 3. Frequency distribution of action topics (green = current actions, yellow = planned/proposed actions).

Headings from the 7 Partner Building Action Tables also provide a useful classification of partner action data. “Information, education, and participation” is the strongest focus of current partner actions. Strong focus is also being given to “site-specific projects” and “improved practices by watershed residents and businesses”. Actions dealing with “new and revised policies and regulations” were the least common in terms of both current and planned actions and were only half as common as actions “working within existing practices, policies and regulations”. This suggests an opportunity for Wingra partners to expand watershed protection efforts by anticipating and preparing for advocacy concerning new policy issues that affect Lake Wingra and its watershed.

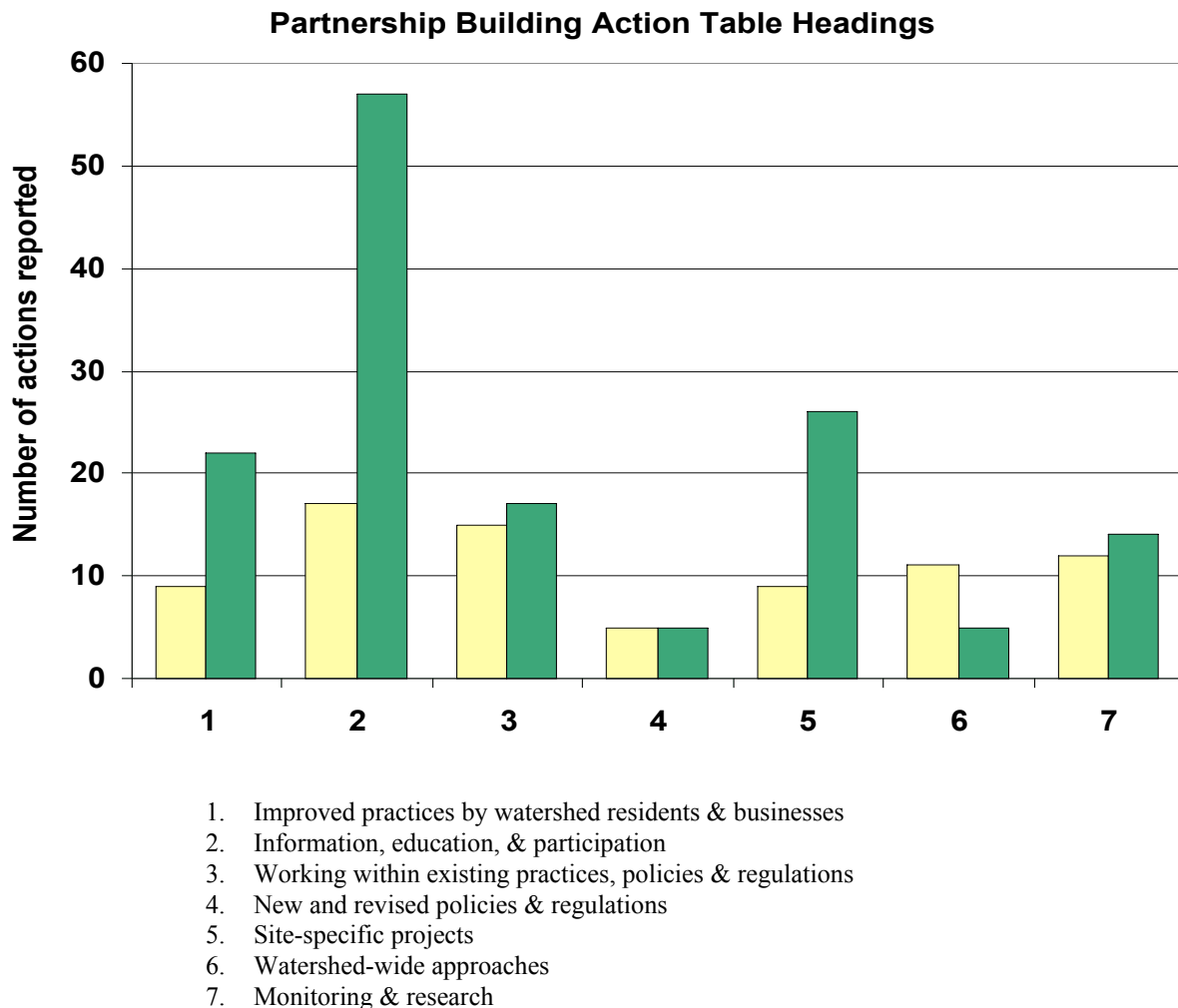


Figure 4. Frequency distribution of actions by heading from the 7 Partner Building Action Tables (green = current actions, yellow = planned/proposed actions).

Another way that collective partner action data were examined was by looking at how topics are being addressed by different action modes (Fig. 5). Collective work in education and outreach done by Lake Wingra partners focuses on general public awareness (e.g. kiosks covering multiple topics) and on stormwater issues. Stormwater related actions comprise more than half of the demonstration projects, over a third of policy actions, and about one fifth of

management and restoration projects. Given this intense stormwater focus in most action modes, it is notable that stormwater is a low priority of monitoring and research. On the other hand, lake water quality (which is very strongly related to stormwater) is a heavy focus of monitoring and research efforts.

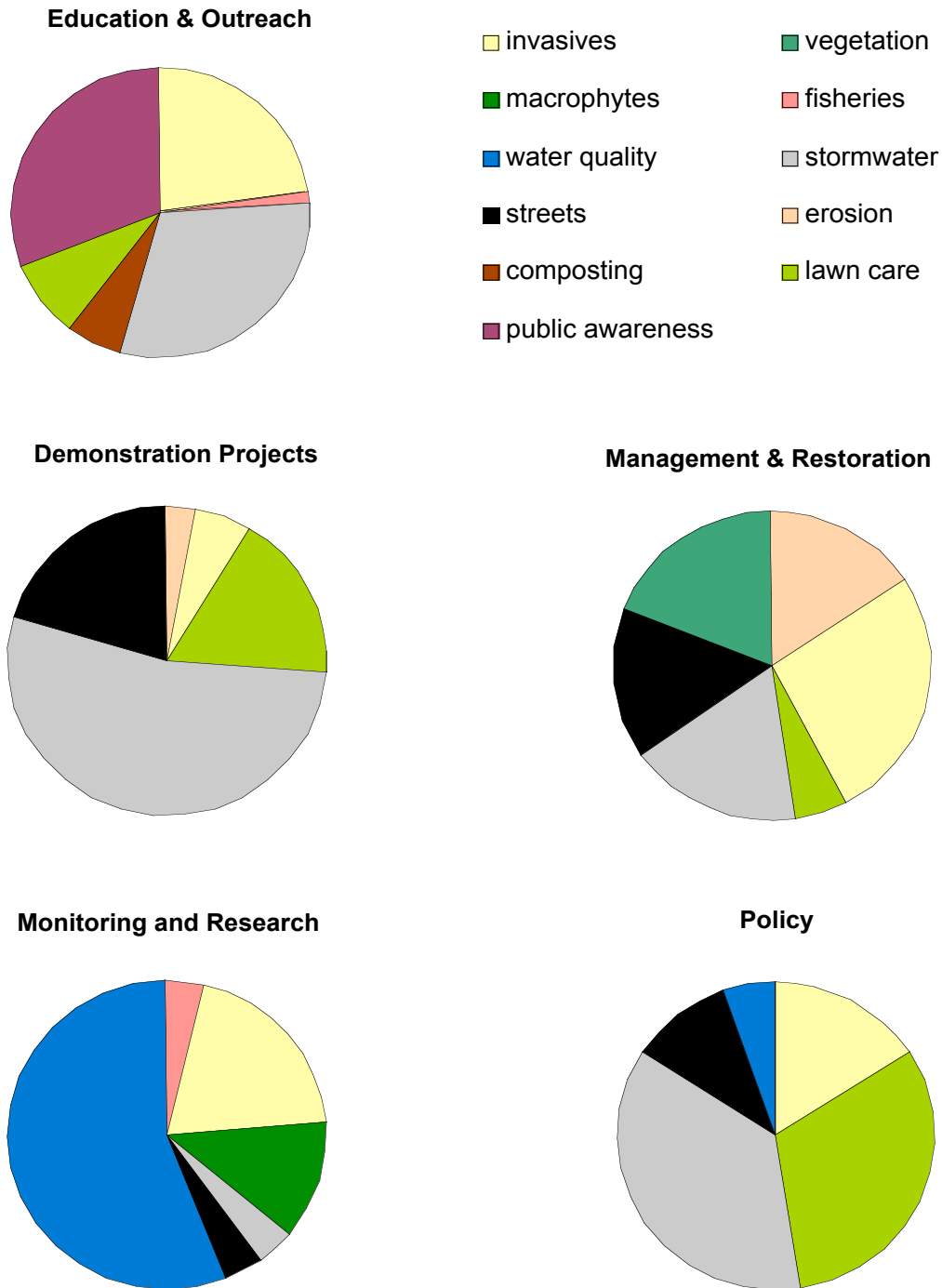


Figure 5. Proportion of each action mode dealing with specific action topics. Charts include current and planned/proposed actions.

Similarly, invasive species are a strong focus (20-30 %) for all action modes except demonstration projects. Likewise, lawn care is focused on to some extent by all action modes except monitoring and research. A 1999 watershed resident survey (*Lake Wingra Watershed: A New Management Approach*, Water Resources Management Workshop, UW-Madison) showed that over half of residents were already using or were willing to use lake-friendly lawn care practices. Monitoring could be used to assess changes in citizen lawn care practices.

The final analysis of collective partner action involved distinguishing action modes that result in tangible improvements to the watershed or lake (direct, or “on the ground” results) versus those that have more indirect results. Management, restoration and demonstration actions were classified as having direct, on the ground, results whereas education/outreach, policy, monitoring and research were classified as having indirect results.

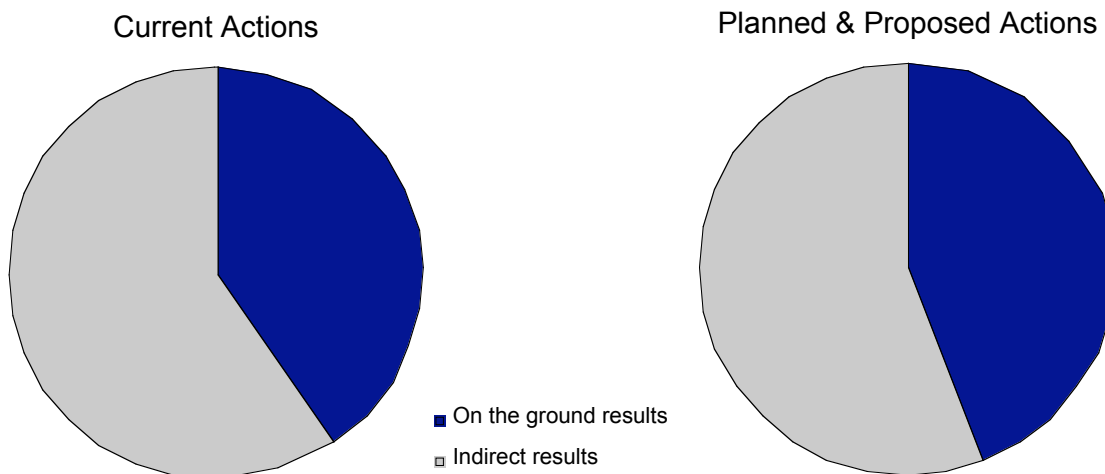


Figure 6. Proportion of collective partner actions that result in direct, on the ground improvements to the Wingra watershed (management, restoration and demonstration) versus actions that have more indirect results (education/outreach, policy, monitoring and research).

Less than half of current and planned partner actions have direct, on the ground results, largely due to the heavy focus on education/outreach, an indirect action mode (Fig. 6). A comparison of current actions to planned actions reveals that partners are beginning to shift their approach to a heavier focus on actions that will result in on the ground improvements to the watershed (40 % of current action versus 44 % of planned actions).

To assess FOLW’s coverage of watershed protection, actions reported by FOLW were extracted from the Partner Action Spreadsheet and examined separately (Fig. 7). Current and planned FOLW actions focus most heavily on the topics of stormwater, invasive species, and public awareness, a pattern that parallels FOLW’s management planning foci (stormwater, invasive species, and citizen stewardship). Again, overlap among topics invalidates the conclusion that the less represented topics (erosion, vegetation, streets, and water quality) are actual gaps in watershed protection, because they may be indirectly receiving quite a bit of attention. For example, erosion is indirectly affected by actions dealing with stormwater and vegetation.

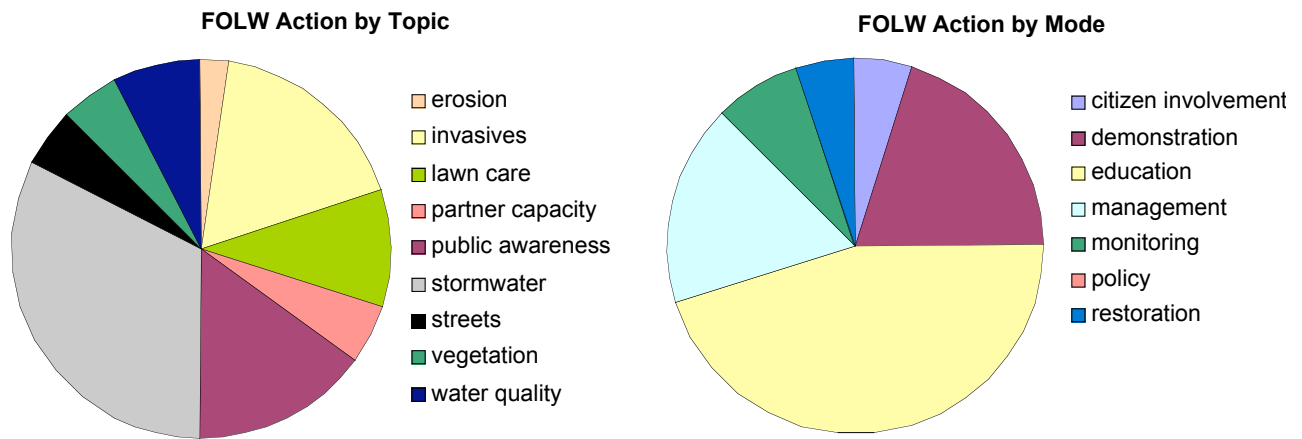


Figure 7. Distribution of FOLW actions by topic and mode. Charts include current and planned/proposed actions.

FOLW’s approach to watershed protection focuses primarily on education and outreach (~ 40 %) with secondary foci on demonstration and management (about 20 % each). The remaining 20 % of FOLW action is divided between citizen involvement, restoration and monitoring. While monitoring may be well covered by partner organizations like UW-LTER and WDNR, citizen involvement is central to FOLW’s mission of “promoting a healthy Lake Wingra through an active watershed community”. Another trend is that actions having policy as the primary action mode are absent from FOLW’s current and planned action. FOLW actions were also separated into direct, on the ground, actions versus indirect actions (Fig. 8). The pattern of FOLW actions is similar to collective partner actions in this analysis. Current actions focus on indirect approaches, particularly education/outreach, while future planned actions shift to more tangible, on the ground improvements to the Wingra watershed.

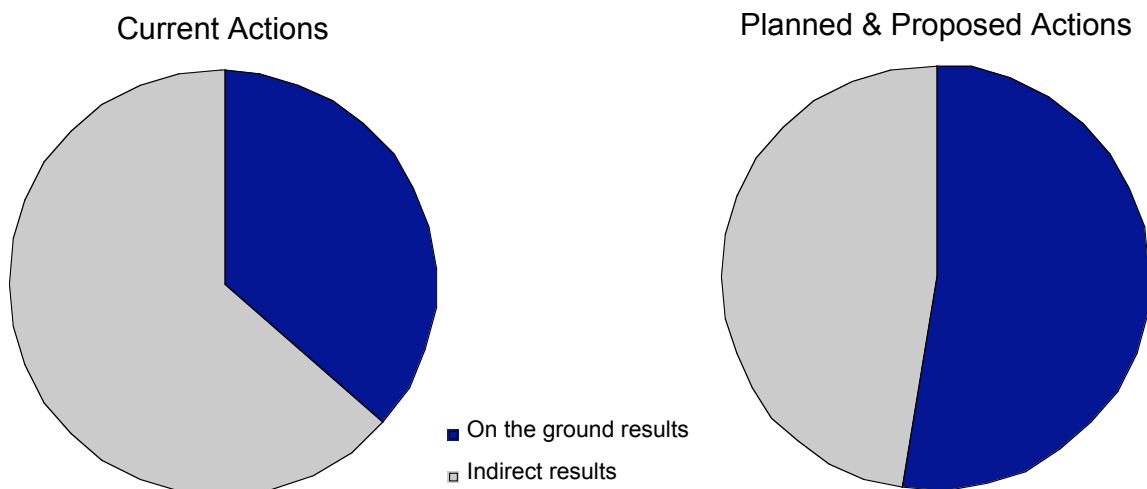


Figure 8. Proportion of FOLW actions that result in direct, on the ground improvements to the Wingra watershed (management, restoration and demonstration) versus actions that have more indirect results (education/outreach, policy, monitoring and research).

The Partner Action Spreadsheet was searched to determine which items from the Partnership Building Action Tables (Appendix 1) are being addressed by only one or none of the reported actions (Table 2). These items may be considered as potential gaps in watershed protection and opportunities for future projects and programs. A pattern that is consistent with other analyses is that the greatest number of gaps is in policy work.

Table 2. Gaps in watershed protection, determined as action items for which only one or no actions were reported. If a single partner was appropriate for an action item, that item was not considered a gap and was excluded from this list. Numbered headings and action item letters below correspond to entries in Appendix 1.

---

Gaps in Lake Wingra Watershed Protection

---

1. Improved Practices by Watershed Residents & Businesses
  - i. Control or management of erosion on publicly managed property.
2. Information, Education, and Participation
  - r. "Business branding"
3. Working within Existing Practices, Regulations and Policies
  - a. State and Local noxious weed ordinances
  - e. Madison Ordinance 7.46, Water pollution control by discharge elimination
  - f. Madison Ordinance 10.18, Deposit of materials in street gutter prohibited
  - l. Begin communicating ordinances through newsletters
4. New and Revised Policies & Regulations
  - b. Consider adding a stormwater audit to building inspection practices
  - c. Accompany building permits with literature on best management practices.
  - g. Pool level control at Odana Ponds
  - h. City invasive species management plan
  - i. Considering formal city policy limiting fertilizer use on golf courses.
5. Site-Specific Projects
  - c. Repair detention basins and other stormwater conveyances
6. Watershed-wide approaches
  - f. Invasive species management
7. Monitoring and Research
  - e. Study need for zebra mussel boat wash
  - j. Develop stormwater and invasive species citizen monitoring programs

---

## **SUMMARY OF MEETING DISCUSSIONS AND EVALUATIONS**

### **Partner Feedback on Draft Management Plans**

Attending partners gave general and specific feedback that will be helpful in finalizing the draft management plans. General responses for both plans included an appreciation of the concrete planning done by FOLW and of the informative PowerPoint presentations that clearly laid out the values and reasons for chosen management approaches. Partners also liked the emphasis on citizen involvement and that the plans acknowledge connections between stormwater and invasive species. The importance of a focus on education to change perceptions of adults and children (future decision-makers) was noted. Concerns and suggestions included discrepancies in watershed statistics among the two plans and the need for incentives (political and financial) in order to effect changes in watershed practices. It was noted that a lot of the actions are costly to implement and financing goals were not clearly addressed. Participants discussed the audience of the plans and suggested using attention-grabbing facts and photos/figures that will engage general audiences (and perhaps a glossary).

For the Draft Stormwater Management Plan, positive comments focused on the thorough inventory of specific problem sites (e.g. stormwater erosion sites) and the focus on infiltration and source reduction as the main stormwater management approaches. Participants brought up a number of concerns and questions as well. Several questions about the effects of stormwater infiltration on the quality and quantity of groundwater were raised. These included the potential for contamination of groundwater and whether or not infiltration would improve spring flow given that groundwater pumping may be the chief cause of reduced spring flow. Another question relating to infiltration areas was whether mosquito control is a concern with rain gardens. Some participants were interested in what data are available on modeled pollutant loads and the contribution of watershed golf courses to the nutrient problem in Lake Wingra. Attention was called to the need to identify concrete actions for Nakoma golf course and area businesses and the need to establish performance measures for evaluating stormwater management progress. One comment suggested that partners work to persuade the city to move from traditional engineering practices (conveyance) toward demonstration of new strategies (infiltration and source reduction). Finally, it was noted that the plan should specifically acknowledge and cite the contributions of experts and photographers whose work was used in the plan.

Aspects of the Draft Invasive Species Management Plan that participants found really positive were the use of demonstrations, the focus on the SW Bike Path, the specific suggestions for native plants as replacements for invasives, and the matrix identifying priorities for invasive species control. Some concern was voiced for the effects of management on native communities (e.g. carp management effects on game fish) and endangered species (e.g. small white lady slipper and prairie fringed orchid). The need to control reed canary grass along the bike path and the lack of attention given to submerged species were mentioned. Finally, a suggestion was made that the plan should include a clearer emphasis on specific invasive plants in the watershed that have the greatest impacts on the lake and surrounding wetlands.

### **Discussion of Emerging Trends**

Partners participated in a discussion of trends that emerged from the completed Partnership Building Action Tables. Many participants were encouraged and impressed by how much work is already being done (lots of green dots). The absence of dots in the business column was a concern for many participants who urged efforts to engage the business community (individual businesses and business associations) as partners in Wingra watershed protection. It was noted that the lack of dots in the interest groups column may be due to the lack of representation at the meeting and not lack of activities. Participants were also concerned that no representative from the Town of Madison was present. In contrast, the city of Madison was commended for the large number of current actions (green dots) and it was noted that FOLW had a large number of planned actions (yellow dots). A trend that was a focus of discussion was that the greatest number of dots was under community education actions. Participants suggested that partners' work should begin to transition from education to implementation and that the next grants should be action-oriented rather than continued planning.

### **Evaluation of the Meeting**

Participating partners responded very positively to the format, agenda and structure of the meeting. Partners felt that FOLW hosts did a great job and that Tom Mickelson was a superb facilitator, keeping a complex meeting well focused, productive, and on time. Some participants felt that more time was needed for discussions and more detailed plan presentations. A number of participants commended the Partnership Building Action Tables as an excellent format for creating a tangible demonstration of current and planned activities as well as gaps in watershed protection.

General comments on the set up of the meeting were also very positive. Participants liked the nametags and the room with windows, and enjoyed the snacks. Some participants were pleased with the level of attendance from diverse partners and were glad to have the opportunity to network with others interested in watershed protection. In contrast, several participants voiced disappointment that attendance was not higher. There was concern that some stakeholders (specifically business persons, politicians, and golf course managers) were not present, and that these are important players that need to "buy in" to the partner process and goals for watershed protection. Comments made about fellow attendees' participation were all positive; attendees commented that the feedback, sharing of ideas, and discussions that followed presentation of management plans was very constructive and thoughtful.



Appendix 1. Row heading entries from the Partnership Building Action Tables. Highlighted entries were added by meeting participants.

### **1. Improved Practices by Watershed Residents & Businesses**

---

- a. Implement an incentive-based system of Environmental Audits
- b. Disconnect downspouts from permeable surfaces
- c. Reduce inappropriate use of lawn care fertilizers & pesticides
- d. Promote on-site (or neighborhood) leaf composting
- e. Set a goal for rain garden implementation: e.g. 5% of watershed properties in 5 years; 20% in 10 years; 50% in 20 years
- f. Promote back yard habitat audits for invasive plant control and native plant restoration
- g. Control or eradicate invasive species on publicly managed property
- h. Control or eradicate invasive species on privately managed property
- i. Control or management of erosion on publicly managed property.
- j. Selling of compost bins by city every spring
- k. City could sell rain barrel systems at a low price along with compost bin sales.
- l. Modify an existing park building to incorporate examples of all strategies (rain gardens, rain barrels, low management turf, unpaved parking, etc)

### **2. Information, Education, and Participation**

---

- a. Continue to place an annual insert in all neighborhood newsletters
- b. Include an announcement or brief article in every edition of all neighborhood newsletters.
- c. Host the annual Wingra Watershed Community Fair
- d. Maintain Information Kiosks at Wingra Park (and new locations)
- e. Raise citizen awareness of storm water issues and ordinances.
- f. Citizen monitoring, Lake Wingra water quality
- g. Citizen monitoring, Wingra Creek water quality
- h. Support and build capacity of Friends of SW Bike Path
- i. Provide service learning for the elementary, secondary, and college levels
- j. Sponsor and co-sponsor rain garden workshops and tours
- k. Help maintain and use demonstration rain gardens at Edgewood and other locations
- l. Support implementation of a demonstration rain garden street.
- m. Raise citizen awareness of invasive species issues and alternatives
- n. Train citizens in invasives management techniques
- o. MG&E sponsored EcoTeams program and is currently sponsoring development of new Environmental Action Teams (EnAct) program to teach households to save energy, reduce pollution, conserve water and increase infiltration.
- p. Grade school fish "show and tells" that use fish as a metaphor for lake health and describe actions the public can embrace.
- q. Work with YLAG to meet with editorial board or freelancers to get info more widely written about and printed.
- r. "Business branding"
- s. Develop ready to print articles for the media
- t. Educate public about water conservation
- u. Educate public about beach water quality
- v. Rain garden brochure
- w. Yahara Lakes Week
- x. Promote NRCS Backyard Conservation program

### **3. Working within Existing Practices, Regulations and Policies**

---

- a. State and Local noxious weed ordinances

- b. Madison Ordinance 10.29, downspouts and eaves of buildings not to drain onto sidewalks
- c. Madison Ordinance 7.48, providing info on lawn fertilizers and chemicals at point of sale
- d. Building site erosion practices and site inspections
- e. Madison Ordinance 7.46 Water pollution control by discharge elimination
- f. Madison Ordinance 10.18, deposit of materials in street gutter prohibited
- g. Provide training to improve management of shoreline vegetation at Vilas and Wingra parks
- h. Improve the effectiveness of leaf pickup
- i. Improve the effectiveness of street sweeping
- j. Reduce the amount of road salt used for de-icing
- k. Madison Ordinance 8.42, Feeding birds on public property prohibited
- l. Begin communicating ordinances through newsletters

#### **4. New and Revised Policies & Regulations**

---

- a. Consider revising Madison Storm Water Utility Ordinance 35.03 to include financial incentives for property owners to implement best practices.
- b. Consider adding a stormwater audit to building inspection practices
- c. Accompany building permits with literature on best management practices.
- d. Explore ordinances that limit the use of specific lawn care chemicals (fertilizers, chemicals) without demonstrated need.
- e. Improved stormwater infiltration and cleaning of parking lots
- f. Improve road de-icing practices
- g. Pool level control at Odana Ponds
- h. City invasive species management plan
- i. Considering formal city policy limiting fertilizer use on golf courses.

#### **5. Site-Specific Projects**

---

- a. Implement a demonstration rain garden street.
- b. Repair erosion damage to storm water conveyance system
- c. Repair detention basins and other stormwater conveyances
- d. Restore and maintain vegetation along SW Bike Path
- e. Eradicate purple loosestrife in the Edgewood marsh at Lake Wingra
- f. Control reed canary grass control in Arboretum wetlands and other areas
- g. Support Greater Madison Healthy Lawn Team's demonstration wellhead protection project
- h. Plan and implement Wingra Creek bank and corridor improvements
- i. Shoreline restoration at Vilas and Wingra Parks
- j. City is making channel erosion repairs at Westmoreland Park this summer.
- k. Install a raingarden in Vilas Park.
- l. Removal of aquatic weeds at beaches and Wingra Park boat launch area

#### **6. Watershed-wide approaches**

---

- a. Improve rainfall infiltration on commercial properties
- b. Improve rainfall infiltration in open spaces
- c. Explore, evaluate, and implement alternative storm water treatment options
- d. Implement an intensive street sweeping pilot project
- e. Manage problem Canada Goose and Mallard Duck populations

## 7. Monitoring and Research

---

- a. Research and monitoring of water quality at Vilas Park Beach
- b. Work with selected neighborhoods to document: what % gutter disconnects are possible? How much voluntary compliance is possible?
- c. Monitoring of Lake Wingra macrophyte diversity and abundance
- d. Feasibility study of carp population suppression
- e. Study need for zebra mussel boat wash
- f. Stormwater management and ecological restoration projects at U.W. Arboretum
- g. Long Term Ecological Research (LTER) sampling of Lake Wingra
- h. DNR fish population surveys
- i. Monitor goose populations in Vilas Park
- j. Develop stormwater and invasive species citizen quality monitoring programs
- k. UWEXT/WDNR could encourage research on other invasives, if group identifies invasive species of concern. Biocontrol can be researched for other invasives if 1) need is identified and 2) funds are available.
- l. Currently monitoring Lake Wingra for zebra mussel veligers in water samples.
- m. Currently support citizen monitoring for streams.
- n. Drafting a report on options regarding control of zebra mussels

Appendix 2. Information on partner meeting participants. Actions reported by individual residents were recorded in spreadsheet but excluded from quantitative analyses.

#	Name	Organization(s)	Email	Phone
1	Brock Woods	UWExt, WDNR	<a href="mailto:brock.woods@dnr.state.wi.us">brock.woods@dnr.state.wi.us</a>	221-6349
2	Tony Fernandez	Madison Engineering, FO SW Bike Path, DMNA	<a href="mailto:afernandez@cityofmadison.com">afernandez@cityofmadison.com</a>	266-9219
3	David Creswell	retired, no organization listed	<a href="mailto:dcres0@hotmail.com">dcres0@hotmail.com</a>	
4	Marcia Hartwig	Dane Co. Lakes & Watershed Commission	<a href="mailto:hartwig@co.dane.wi.us">hartwig@co.dane.wi.us</a>	224-3746
5	Dick Lathrop	WDNR, UW LTER	<a href="mailto:rlathrop@facstaff.wisc.edu">rlathrop@facstaff.wisc.edu</a>	261-7593
6	Annette Czarniecki	Bay Creek NA., FOMB, GMHeLT	<a href="mailto:czaram@itis.com">czaram@itis.com</a>	250-5147
7	Kurt Welke	WDNR, Westmoreland NA	<a href="mailto:welkek@dnr.state.wi.us">welkek@dnr.state.wi.us</a>	273-5946
8	Greg Fries	City Engineering	<a href="mailto:gfries@cityofmadison.com">gfries@cityofmadison.com</a>	267-1199
10	Bob Stoffs	MG&E, Bay Creek NA		
11	Marika Fischer Hoyt	DMNA, Friends of SW Bike Path	<a href="mailto:mfhoyt@aol.com">mfhoyt@aol.com</a>	233-2646
12	Susan Graham	WDNR	<a href="mailto:grahas@dnr.state.wi.us">grahas@dnr.state.wi.us</a>	275-3329
13	Jon Standridge	UW Lab of Hygiene, Comm. of Env't., Vilas NA	<a href="mailto:jhs@mail.slh.wisc.edu">jhs@mail.slh.wisc.edu</a>	224-6209
14	Kirsti Sorsa	City of Madison Health Department	<a href="mailto:ksorsa@cityofmadison.com">ksorsa@cityofmadison.com</a>	294-5336
16	Laura England	FOLW, FOMB, Grassroots Leadership College	<a href="mailto:lengland@arches.uga.edu">lengland@arches.uga.edu</a>	345-1872
18	Tom Mickelson	ALG Consulting, watershed resident		
27	Bob Liska	WDNR, FOLW	<a href="mailto:liskar@dnr.state.wi.us">liskar@dnr.state.wi.us</a>	275-3288
28	Ken Johnson	WDNR	<a href="mailto:Kenneth.johnson@dnr.state.wi.us">Kenneth.johnson@dnr.state.wi.us</a>	275-3243
29	Hannah Harris	DMNA Lake Wingra Committee	<a href="mailto:harris@merr.com">harris@merr.com</a>	232-1462
30	David Shiffert	FOLW	<a href="mailto:dshiffert@edgewood.edu">dshiffert@edgewood.edu</a>	663-2838
31	Jim Morgan	City of Madison Parks	<a href="mailto:jmorgan@cityofmadison.com">jmorgan@cityofmadison.com</a>	266-4711
32	Steve Glass	UW Arboretum	<a href="mailto:sbglass@wisc.edu">sbglass@wisc.edu</a>	262-5099
33	Katharine Odell	FOLW, Vilas NA	<a href="mailto:khodell@facstaff.wisc.edu">khodell@facstaff.wisc.edu</a>	262-6467
39	Anonymous			
41	Kevin Connors	Dane County Land Conservation Department	<a href="mailto:connors.kevin@co.dane.wi.us">connors.kevin@co.dane.wi.us</a>	224-3730
45	added by LE	Greater Madison Healthy Lawn Team	<a href="mailto:cmg@healthylawnteam.org">cmg@healthylawnteam.org</a>	233-8455
46	added by LE	WRM Survey Results		
47	added by LE	UW LTER Schoolyard Project		
48	* David Denig-Chakroff	City of Madison Water Utility	<a href="mailto:ddenigchakroff@cityofmadison.com">ddenigchakroff@cityofmadison.com</a>	
49	* Todd Stuntebeck	US Geological Survey		821-3872
50	Added by LE	Town of Madison		
51	* Suzanne Wade	UW Ext – Rock River Basin Educator	<a href="mailto:suzanne.wade@ces.uwex.edu">suzanne.wade@ces.uwex.edu</a>	920-674-7295
52	* Steve Falter	Capital Water Trails	<a href="mailto:capwtrrls@tds.net">capwtrrls@tds.net</a>	223-0995
53	* Bob Pearson	WI Department of Transportation	<a href="mailto:robert.pearson@dot.state.wi.us">robert.pearson@dot.state.wi.us</a>	266-7980
54	* Roger Goodwin	City of Madison Streets Division	<a href="mailto:rgoodwin@ci.madison.wi.us">rgoodwin@ci.madison.wi.us</a>	

\* Partner did not attend meeting, but was contacted afterwards to obtain information about their organization's work in the watershed.

Appendix 3. Partner Action Spreadsheet sorted by action # and letter as listed in row headings of Partnership Building Action Tables (Appendix 1). Reported actions that were classified as "individual action" in the mode column were excluded from quantitative analyses. Blue cells, which contain ideas rather than actions, were also excluded.

Participant #	Partner Primary	Category Secondary	Partner Organization		#	Letter	Topic	Action Item		Comments
			Primary	Secondary				Mode 1	Mode 2	
30	Interest Group		FOLW		1	a	stormwater/invasives	education	citizen involvement	FOLW is currently doing this.
40	University		UW		1	a	stormwater/invasives	education	citizen involvement	
7	Neighborhoods	State	Westmoreland N.A.	WDNR	1	b	stormwater	demonstration	management	Work with WNA and DNR fisheries to implement a series of high profile stormwater control and infiltration strategies to reduce the contribution of the neighborhood impervious area to the lake
13	City		Commission of the Environment		1	b	stormwater	policy		
16	Residents		Individual resident		1	b	stormwater	individual action		Would like to disconnect downspout on the house I rent.
18	Residents		Individual resident		1	b	stormwater	individual action		
29	Neighborhoods		DMNA		1	b	stormwater	education	demonstration	Educate neighbors through newsletters and pilots/examples.
33	Interest Group		FOLW		1	b	stormwater	education		Would like to promote this...maybe write a grant.
39	Residents		Individual resident		1	b	stormwater	individual action		
40	Residents		Individual resident		1	b	stormwater	individual action		
46	Residents		WRM Resident Survey		1	b	stormwater	individual action		41 % Have modified gutters and downspouts on their homes to divert rain away from driveways, sidewalks, and roads
46	Residents		WRM Resident Survey		1	b	stormwater	individual action		31 % Were willing to modify gutters and downspouts on their homes to divert rain away from driveways, sidewalks, and roads
2	Interest Group		FO SW Bike Path		1	c	lawn care	management		Currently managing the maintenance of SW Bike Path corridor for city. Developed bike path maintenance plan with guidelines for fertilizer and pesticide use.
6	Neighborhoods	Interest Group	Bay Creek N.A.	FOMB	1	c	lawn care	education		Leads Safe Lawns/ Clean Lakes campaign in Bay Creek neighborhood.
10	Residents		Individual resident		1	c	lawn care	individual action		Resident uses little or no fertilizers and pesticides and talks with his neighbors about these issues.
13	City		Commission of the Environment		1	c	lawn care	policy		
16	Interest Group		FOMB		1	c	lawn care	education		FOMB does community awareness work for fertilizer/pesticides (Safe Lawns/Clean Lakes) in the Bay Creek Neighborhood
18	Residents		Individual resident		1	c	lawn care	individual action		
29	Neighborhoods		DMNA		1	c	lawn care	education		Educate neighbors through newsletters and pilots/examples.
30	Interest Group		FOLW		1	c	lawn care	education		FOLW is doing this through outreach.

32	University		UW Arboretum		1	c	lawn care	management		The Arboretum currently reduces use of fertilizers/pesticides.
40	Residents		Individual resident		1	c	lawn care	individual action		
46	Residents		WRM Resident Survey		1	c	lawn care	individual action		31% Already use fertilizer that does not contain phosphorus
46	Residents		WRM Resident Survey		1	c	lawn care	individual action		33 % Were willing to use fertilizer not containing phosphorus
46	Residents		WRM Resident Survey		1	c	lawn care	individual action		29 % Do not use chemical fertilizers
46	Residents		WRM Resident Survey		1	c	lawn care	individual action		29 % Were willing to stop using chemical fertilizers
46	Residents		WRM Resident Survey		1	c	lawn care	individual action		31 % Do not use pesticides (herbicides, fungicides, insecticides or rodenticides)
46	Residents		WRM Resident Survey		1	c	lawn care	individual action		25 % Were willing to stop using pesticides (herbicides, fungicides, insecticides or rodenticides)
6	Neighborhoods	Interest Group	Bay Creek N.A.	FOMB	1	d	lawn care	education		Submitted articles on environmentally sustainable lawn care practices to Bay Creek newsletter.
8	City		City of Madison		1	d	composting	education		City of Madison sells the "Earth Machine" composter at cost twice a year.
10	Residents		Individual resident		1	d	composting	individual action		Resident gathers leaves in neighborhood to compost for his garden.
18	Residents		Individual resident		1	d	composting	individual action		
29	Neighborhoods		DMNA		1	d	composting	education		Educate neighbors through newsletters and pilots/examples and through signs on telephone poles in the fall.
33	Interest Group		FOLW		1	d	composting	education		
39	Residents		Individual resident		1	d	composting	individual action		
13	City		Commission of the Environment		1	e	stormwater	policy		
29	Neighborhoods		DMNA		1	e	stormwater	education		Educate neighbors through newsletters and pilots/examples.
30	Interest Group		FOLW		1	e	stormwater	management	education	FOLW workshops
29	Neighborhoods		DMNA		1	f	stormwater/invasives	education	monitoring	DMNA would likely support backyard audits program.
30	Interest Group		FOLW		1	f	invasives	education	citizen involvement	FOLW will be doing this.
32	University		UW Arboretum		1	f	stormwater/invasives	education	monitoring	The Arboretum would support backyard audits.
1	University	State	UWExt	WDNR	1	g	invasives	education		UWExt/WDNR has program (6-12 and college groups) promoting control (esp. biological) of purple loosestrife (PL) for all of WI, and hope to develop similar programs for garlic mustard and buckthorn. Will publish curricular activity book for educators in next couple of weeks for PL Biocontrol. Dane Co. Cons. League supports this (\$ and soon with man-power).

2	City	City of Madison Engineering	1	g	invasives	management	citizen involvement	Trying to facilitate a citizen-based effort to replant areas of SW bike corridor, including areas where MG&E cut trees, and other areas that are degraded.
3	Residents	Individual resident	1	g	invasives	individual action		
7	State	WDNR	1	g	invasives	education		Cooperate with carp eradication and public info on other invasives through outreach
8	City	City of Madison Engineering	1	g	invasives	management		City Engineering tries to mow greenways 1-2 times/year to keep exotics under control
32	University	UW Arboretum	1	g	invasives	management		The Arboretum currently works to eradicate invasives.
33	Residents	Individual resident	1	h	invasives	individual action		
33	Neighborhoods	Vilas N.A.	1	h	invasives	management		
40	University	Edgewood	1	h	invasives	management		
40	Residents	Individual resident	1	h	invasives	individual action		
2	City	City of Madison	1	i	erosion	management		Trying to manage construction and use of SW bike corridor to reduce erosion.
31	City	City of Madison	1	j	composting	education		City sells composting bins every spring.
54	City	City of Madison	1	k	stormwater	education	citizen involvement	City could sell rain barrel systems at a low price along with compost bin sales. The Sotrmwater Utility would have to be responsible for financing the barrel sale.
31	City	City of Madison Parks	1	l	stormwater	demonstration		Modify an existing park building to incorporate examples of all strategies (rain gardens, rain barrels, low management turf, unpaved parking, etc)
6	Neighborhoods	Bay Creek N.A.	2	a	public awareness	education		
13	Neighborhoods	Vilas N.A.	2	a	public awareness	education		
30	Interest Group	FOLW	2	a	public awareness	education		FOLW is currently doing this.
6	Neighborhoods	Bay Creek N.A.	2	b	public awareness	education		
7	Neighborhoods	Westmoreland N.A.	2	b	stormwater	education		Develop neighborhood mailer/pamphlet for distribution with Westmoreland N.A. courier newsletter on stormwater and individual "rules".
13	Neighborhoods	Vilas N.A.	2	b	public awareness	education		
29	Neighborhoods	DMNA	2	b	public awareness	education		DMNA Hornblower (newsletter) articles.
30	Interest Group	FOLW	2	b	public awareness	education		FOLW is currently doing this.
30	Interest Group	FOLW	2	c	public awareness	education	citizen involvement	FOLW is currently doing this.

40	University	Edgewood	2	c	public awareness	education	citizen involvement	Edgewood College helps host the fair.
29	Neighborhoods	DMNA	2	d	public awareness	education		Post info in Wingra Park kiosk and in soon to be installed Glenwood Park kiosk.
30	Interest Group	FOLW	2	d	public awareness	education		FOLW is currently doing this.
32	University	UW Arboretum	2	d	public awareness	education		Put a kiosk in the Arboretum at Big Spring parking lot.
4	County	Dane Co. Lakes and WS Commission	2	e	stormwater	education		The new Information & Education coordinator for the Joint Permit Group will be hired later this year to implement the NR216 Joint Permit Group's Outreach Plan. (pre-survey is currently being conducted)
4	County	Dane County Land Cons. Dept.	2	e	stormwater	education		
7	Neighborhoods	Westmoreland N.A.	2	e	stormwater/invasives	education		Develop public outreach kiosk for profiling stormwater/invasives issues at the Sequoia Library or Bergman's Plaza.
8	City	City of Madison Engineering	2	e	stormwater	education		City Engineering provides info to all neighborhood groups on an as requested basis and tries to work with groups like FOLW to help them achieve their goals
13	University	UW Lab of Hygiene	2	e	stormwater	education		
16	Residents	Individual resident	2	e	stormwater	education	monitoring	Considering doing a stormwater education/monitoring (Adopt-a-sewer?) program as part of my participation in the Madison Grassroots Leadership College
28	State	WDNR	2	e	stormwater	demonstration	education	As part of the UWM/G&E co-generation project, DNR will require 4 infiltration sites to replace lost groundwater from well augmentation. All of these sites will have signage for public education and will be monitored. One of these sites is in the Arbor Hills Area (in watershed) in which they propose to infiltrate 24 million gallons of stormwater per year.
29	Neighborhoods	DMNA	2	e	stormwater	education		Educate neighbors through newsletters and pilots/examples.
30	Interest Group	FOLW	2	e	stormwater	education		FOLW is currently doing this.
31	City	City of Madison Parks	2	e	stormwater	education		Provide classroom space inside to conduct teaching sessions. People would come to see and learn and take ideas back home to try. Have good signage outside the building (possible corporate sponsorship).
5	University	UWLTER	2	f	water quality	monitoring	citizen involvement	UWLTER program could help coordinate efforts to develop a citizen monitoring program for Lake Wingra (on a limited basis and as supporting org., not lead org.).
12	State	WDNR	2	f	water quality	monitoring	citizen involvement	Will be helping Jennifer Filbert (also at WDNR) train, equip, and support the Lake Self-Help volunteers.
13	University	UW Lab of Hygiene	2	f	water quality	monitoring		
29	Neighborhoods	DMNA	2	f	water quality	monitoring	citizen involvement	DMNA can recruit volunteers from neighborhood if someone else (FOLW?) organizes the monitoring.
30	Interest Group	FOLW	2	f	water quality	monitoring	citizen involvement	FOLW is currently doing this.
39	Residents	Individual resident	2	f	water quality	individual action	monitoring	
27	Residents	Individual resident	2	g	water quality	monitoring	citizen involvement	Would like to be involved with monitoring Wingra Creek
30	Interest Group	FOLW	2	g	water quality	monitoring	citizen involvement	FOLW is currently doing this.



39	Residents	Individual resident	2	g	water quality	individual action	monitoring		
2	City	City of Madison	2	h	partner capacity	citizen involvement		Trying to promote or "resurrect" Friends of SW Bike Path, which became dormant after some controversy last year.	
10	Business	MG&E	2	h	partner capacity	management	restoration	MG&E will help fund plantings along SW Bike Path.	
11	Residents	Individual resident	2	h	partner capacity	individual action			
18	Residents	Individual resident	2	h	partner capacity	individual action			
29	Neighborhoods	DMNA	2	h	partner capacity	citizen involvement		DMNA Lake Wingra Committee members about volunteer opportunities related to bike path.	
30	Interest Group	FOLW	2	h	partner capacity	citizen involvement			
32	University	UW Arboretum	2	h	partner capacity	citizen involvement			
1	University	State	UWExt	WDNR	2	i	invasives	education	UWExt/WDNR has program (6-12 and college groups) promoting control (esp. biological) of purple loosestrife (PL) for all of WI, and hope to develop similar programs for garlic mustard and buckthorn. Will publish curricular activity book for educators in next couple of weeks for PL Biocontrol. Dane Co. Cons. League supports this (\$ and soon with man-power).
8	City	City of Madison Engineering	2	i	stormwater	education		City Engineering is working actively with FOLW on this task.	
13	University	UW Lab of Hygiene	2	i	public awareness	education	citizen involvement		
14	City	City of Madison Health Dept.	2	i	public awareness	education	citizen involvement	Public awareness re: environmental quality	
30	Interest Group	FOLW	2	i	public awareness	education	citizen involvement	FOLW is currently doing this.	
32	University	UW Arboretum	2	i	public awareness	education			
40	University	Edgewood	2	i	public awareness	education		Edgewood service learning	
41	County	Dane Land Conservation Dept.	2	i	public awareness	education		Currently do presentations and workshops for students and neighborhood groups.	
47	University	UWLTER	2	i	public awareness	education	citizen involvement	SchoolYard LTER (SYLTER) Project gets K-12 students and teachers involved in limnological research (currently at Mendota, expand to include activities at Wingra?)	
4	County	Dane Co. Lakes and WS Commission	2	j	stormwater	education	citizen involvement	"Better Lawns and Gutters Tour" as part of Yahara Lakes Week promotes infiltration by toruign existing rain gardens. Event is co-sponsored by GMHELT and Audobon Society.	
30	Interest Group	FOLW	2	j	stormwater	education	citizen involvement	FOLW is currently doing this.	
32	University	UW Arboretum	2	j	stormwater	education	citizen involvement		
40	University	Edgewood	2	j	stormwater	education	citizen involvement		
32	City	City of Madison Parks	2	k	invasives	policy	education	Park staff hand out educational literature to those who are observed feeding the birds. Staff only ticket repeat offenders.	

33	Interest Group		FOLW		2	k	stormwater	demonstration	education	
40	University		Edgewood		2	k	stormwater	demonstration	education	
13	Neighborhoods		Vilas N.A.		2	l	stormwater	demonstration	education	
29	Neighborhoods		DMNA		2	l	stormwater	demonstration	education	DMNA Lake Wingra Committee is interested in having a rain garden streetscape after the Vilas pilot.
31	City		City of Madison		2	l	stormwater	demonstration	education	
32	University		UW Arboretum		2	l	stormwater	demonstration	education	
40	Interest Group		FOLW		2	l	stormwater	demonstration	education	
1	University	State	UWExt	WDNR	2	m	invasives	education		UWExt/WDNR does press releases statewide to help citizens learn about invasives and control.
29	Neighborhoods		DMNA		2	m	invasives	education		
32	University		UW Arboretum		2	m	invasives	education		Need garden at Arboretum.
33	Interest Group		FOLW		2	m	invasives	education		
8	City		City of Madison Parks		2	n	invasives	education		City Parks holds garlic pulling and other volunteer days in city parks
11	Interest Group		FO SW Bike Path		2	n	invasives	education		Would like to have roving experts who could stroll up and down the bike path to consult with residents on-site (individual yards) and point out Purple Loosestrife, explaining how to get rid of it and options of what to plant instead.
32	University		UW Arboretum		2	n	invasives	education		Train volunteers at the Arboretum.
33	Interest Group		FOLW		2	n	invasives	education		
10	Business	Interest Groups	MG&E	EnAct	2	o	partner capacity	education		MG&E sponsored EcoTeams program and is currently sponsoring development of new Environmental Action Teams (EnAct) program to teach households to save energy, reduce pollution, conserve water and increase infiltration.
7	State		WDNR		2	p	fisheries	education		Currently do 5-10 grade school fish "show and tells" that use fish as a metaphor for lake health and describe actions the public can embrace.
7	State		WDNR		2	q	public awareness	publicity		Work with YLAG to meet with editorial board or freelancers to get info more widely written about and printed.
33	Interest Group		FOLW		2	r	partner building	education		"business branding"- have businesses help host FOLW Watershed Fair?
4	County		Dane Co. Lakes and WS Commission		2	s	public awareness	education		Develop ready to print articles for newsletters and other media (available on LWC website)
51	University		UWExt	University	2	s	public awareness	education		Will be doing several articles as part of a River Grant
48	City		City of Madison Water Utility		2	t	public awareness	education		Water Utility periodically sends out literature on water conservation with water bills to all customers. Will include water conservation info along with this year's Annual Water Quality Report. The Utility's website includes info on water conservation measures and the Utility airs public service announcements regardgin conservation measures.

48	City	City of Madison Water Utility	2	t	public awareness	education		Water Utility gives presentations to schools and community groups on request about water conservation
40	Interest Group	FOLW	2	u	water quality	education		FOLW is working to educate public about beach water quality as part of EMPACT project with MDPH and USGS.
4	County	Dane Co. Lakes and WS Commission	2	v	stormwater	education		Print and distribute "How to Build Your Own Raingarden" brochure
4	County	Dane Co. Lakes and WS Commission	2	w	public awareness	education	citizen involvement	Promote water quality/quantity projects held during Yahara Lakes Week in June
52	Interest Group	Capital Water Trails	2	w	public awareness	citizen involvement		Sponsor clean up of Wingra Creek as part of Yahara Lakes Week
4	County	Dane Co. Lakes and WS Commission	2	x	lawn care	education		Promote NRCS Backyard Conservation program
7	Neighborhoods	Westmoreland N.A.	3	b	stormwater/lawn care	education	policy	Include information on these ordinances as part of kiosk and newsletter pamphlet.
13	City	Commission of the Environment	3	b	stormwater	policy		
40	Resident	Individual resident	3	b	stormwater	individual action		
13	City	Commission of the Environment	3	c	lawn care	policy		
30	Interest Group	FOLW	3	c	lawn care	education	policy	
8	City	City of Madison Engineering	3	d	erosion	management		City Engineering inspects redevelopments in the watershed for erosion control during construction.
41	County	Dane County Land Cons. Dept.	3	d	erosion	management		Conduct inspections
14	City	City of Madison Health Dept.	3	e	water quality	policy	monitoring	City ordinance 7.46 and 7.47 follow-up/enforcement. Water pollution control by regulating and permitting non-storm discharge and controlling spills and contaminant releases.
13	City	Commission of the Environment	3	f	streets	policy		
32	University	UW Arboretum	3	g	vegetation	management	education	Wingra Fen and South Shore Fen in Arboretum.
33	Interest Group	FOLW	3	g	vegetation	management	education	
41	County	Dane Land Conservation Dept.	3	g	vegetation	restoration	management	Provide training for shoreline stabilization and enhancement
6	Interest Group	FOMB	3	h	lawn care	management		FOMB may have future activities to improve effectiveness of leaf pickup
7	Neighborhoods	Westmoreland N.A.	3	h	public awareness	education		Inform neighbors about each of these policies and their roles through WNA
13	City	Commission of the Environment	3	h	streets	policy		
27	Residents	Individual resident	3	h	streets	individual action		Would like to be involved in leaf collection and street sweeping in a particular neighborhood

29	Neighborhoods	DMNA		3	h	streets	management	policy	Would support these improvements to streets management/policies.	
40	Residents	Individual resident		3	h	streets	individual	action		
54	City	City of Madison Streets Division		3	h	streets	management	policy	City streets changed the collection of leaves in order to improve efficiency- generally sweep every 21 days through a neighborhood.	
6	Interest Group	FOMB		3	i	streets	management		FOMB may have future activities to improve effectiveness of street sweeping	
8	City	State	City of Madison Engineering	WDNR	3	i	streets	demonstration	research	City (with WDNR & USGS) street sweeping pilot study is ongoing.
14	City		City of Madison Health Dept.	USGS	3	i	streets	demonstration	research	Health Department is working jointly with City Engineering and USGS in the pilot project to evaluate effectiveness of high intensity street sweeping in reducing runoff to lake
29	Neighborhoods	DMNA		3	i	streets	management			
40	Interest Group	FOLW		3	i	streets	demonstration	research		
54	City		City of Madison Streets Division		3	i	streets	management	policy	City Streets supports improved street cleaning
54	City		City of Madison Streets Division	USGS	3	i	streets	demonstration	research	City Streets is working jointly with City Engineering and USGS in the pilot project to evaluate effectiveness of high intensity street sweeping in reducing runoff to lake
14	City		City of Madison Health Dept.		3	j	streets	monitoring		City studies impacts of road-salt on lake chloride and sodium levels. City documents long/short term chloride and sodium trends in Lake Wingra. Raise public awareness and provide incentives to reduce salt use.
29	Neighborhoods	DMNA		3	j	streets	management			
32	University		UW Arboretum		3	j	streets	management		Road salt use in Arboretum is already near zero.
53	State		WisDOT		3	j	streets	management	policy	WisDOT does not use MgCl on the beltline near Lake Wingra (stretch by Arboretum)
54	City		City of Madison Streets Division		3	j	streets	management		City Streets only uses salt on designated salt routes per ordinance. If alternative de-icing chemicals become more cost effective relative to road salt there can be improvements in the future. Still de-icing chemicals of some kind are necessary because the drivng public demnads transportation routes be maintained as "bare pavement".
13	City		Commission of the Environment		3	k	invasives	policy		
13	University		UW Lab of Hygiene		3	k	invasives	policy		
40	Interest Group		FOLW		3	k	invasives	education		
30	Interest Group		FOLW		3	l	public awareness	education		Begin communicating ordinances through newsletters
6	Interest Group		FOMB		4	a	stormwater	policy		FOMB may have future activities to advocate for stormwater utility ordinance
7	Neighborhoods		Westmoreland N.A.		4	a	stormwater	policy		Approach alders and council on how this might work- model ordinance? Or through Yahara Lakes Advisory Group (YLAG)?
8	City		City of Madison Engineering		4	a	stormwater	policy		Will be problematic (rates reviewed by PSC)

27	Residents		Individual resident		4	a	stormwater	individual action	policy	Would like to be involved in stormwater utility ordinance revision and BMP literature accompanying building permits.
7	Neighborhoods		Westmoreland N.A.		4	c	stormwater	education		Distribute info through YLAG to the MABA
5	University		UWLTER		4	d	lawn care	policy		In the early 1990's the Madison Comm. Of the Environ. considered an ordinance banning P in fertilizers. Frank Turkheimer (sp?, UW law student) drafted an ordinance, but the issue died due to lack of city administration support. Recommend resurrecting this ordinance.
14	City		City of Madison		4	d	lawn care	policy		
45	Interest Group		GMHeLT		4	d	lawn care	policy		Working to introduce changes to the city's current pest management policy.
8	City		City of Madison		4	e	stormwater	policy	monitoring	Ensure all development complies with Dane County stormwater management ordinance.
32	University		UW Arboretum		4	e	stormwater	management		Arboretum is developing stormwater management plan promoting infiltration. Already sweep roads and parking lots.
32	University		UW Arboretum		4	f	streets	management		Policy in Arboretum is for nearly zero road salt use.
54	City		City of Madison Streets Division		4	f	streets	management		Streets is constantly working to balance service needs vs. salt use.
2	City		City of Madison		4	i	lawn care	policy		Considering formal city policy limiting fertilizer use on golf courses.
8	City		City of Madison Engineering		5	a	stormwater	demonstration		City engineering is working with FOLW of implementing a rain garden street.
13	City		Commission of the Environment		5	a	stormwater	demonstration		
13	Neighborhoods		Vilas N.A.		5	a	stormwater	demonstration		
29	Neighborhoods		DMNA		5	a	stormwater	demonstration		DMNA Lake Wingra Committee is interested in having a rain garden streetscape after the Vilas pilot.
30	Interest Group		FOLW		5	a	stormwater	demonstration		FOLW is implementing a rain garden streetscape (Adams St).
7	Neighborhoods	State	Westmoreland N.A.	WDNR	5	b	erosion	demonstration	restoration	A joint WNA/DNR stormwater demo project will accomplish this.
8	City		City of Madison Engineering		5	b	erosion	restoration	management	City engineering has ongoing projects (Westmoreland Park this summer).
32	University		UW Arboretum		5	b	erosion	restoration	management	Arboretum plans to repair erosion
32	University		UW Arboretum		5	c	erosion	restoration	management	Arboretum plans to repair detention basins.
2	Interest Group		FO SW Bike Path		5	d	vegetation	management		Managing SW Bike Path corridor, including both city maintenance and "stewardship" by adjacent property owners.
3	Resident		Resident		5	d	vegetation	individual action		Would help Fo SW Bike Path in managing vegetation if they become active again.
11	Interest Group		FO SW Bike Path		5	d	vegetation	management	restoration	Helping to convene concerned residents to create and implement a coordinated plan to replant along path using support resources, including funding from MG&E.

29	Neighborhoods		DMNA		5	d	vegetation	restoration	management	DMNA Path Committee works with vegetation on SW bike path.
1	University	State	UWExt	WDNR	5	e	invasives	management		UWExt/WDNR is working with Edgewood, Arboretum, and the city to reduce/eradicate PL in Edgewood Marsh. They hope to have similar programs in the next 2-5 years for garlic mustard and buckthorn.
3	Resident		Individual resident		5	e	invasives	individual action		Would help with PL eradication in Edgewood marsh (enjoys physical labor). Interested in working with Tim Andrews.
32	University		UW Arboretum		5	e	invasives	management		
40	University		Edgewood		5	e	invasives	management		
40	Interest Group		FOLW		5	e	invasives	management		
1	State		WDNR		5	f	invasives	management		
32	University		UW Arboretum		5	f	invasives	management		Research on control of reed canary grass is underway in Arboretum.
2	City		City of Madison Engineering		5	g	lawn care	demonstration	research	
6	Neighborhoods		Bay Creek N.A.		5	g	lawn care	demonstration	research	
6	Interest Group		GMHeLT		5	g	lawn care	demonstration	research	
13	City		Commission of the Environment		5	g	lawn care	demonstration	research	
14	City		City of Madison		5	g	lawn care	demonstration	research	City support of wellhead protection program
33	Interest Group		FOLW		5	g	lawn care	demonstration	research	
8	City		City of Madison Engineering		5	h	erosion	restoration	management	City Engineering has hired a consultant (Ayres) to do the Wingra Creek restoration design.
40	Interest Group		FOLW		5	h	erosion	restoration	management	
12	State		WDNR		5	i	vegetation	restoration	management	Will help provide sound technical information and contacts to help shoreline restoration efforts at Vilas Park. Would like to volunteer a few hours to help with planting or maintenance of restored shorelines.
29	Neighborhoods		DMNA		5	i	vegetation	restoration		DMNA Wingra Park Committee is exploring shoreline restoration.
31	City		City of Madison Parks		5	i	vegetation	restoration		
33	Neighborhoods		Vilas N.A.		5	i	vegetation	restoration	management	Will work on getting Vilas neighborhood involved in shoreline restoration.
40	Interest Group		FOLW		5	i	vegetation	restoration	management	
50	Town		Town of Madison		5	i	vegetation	restoration	management	The Town of Madison has received a Targeted Runoff Management Grant from the DNR for shoreline improvements at Schmidt Park. Improvements will include removal of invasive species (Buckthorn), shoreline grading for enhanced buffering of stormwater events, limited installation of rip-rap for stabilizing an existing storm sewer outfall, and planting of native grasses, shrubs and forbs on the graded bank and in the lagoon. The end result should be a public parkway with improved access to a beautiful water garden that welcomes both

8	City	City of Madison Engineering	5	j	erosion	restoration	management	City is making channel erosion repairs at Westmoreland Park this summer.
33	Interest Group	FOLW	5	k	stormwater	demonstration	education	Might be useful to do a raingarden in Vilas Park.
41	County	Dane County Public Works Dept.	5	l	invasives	management		Harvest aquatic weeds in beach swim areas of Lake Wingra and at Wingra Park boat launch
6	Interest Group	FOMB	6	a	stormwater	management	watershed-wide	FOMB may have future activities to improve rainfall infiltration on commercial properties
7	Neighborhoods	Westmoreland N.A.	6	a	stormwater	management	watershed-wide	
13	City	Commission of the Environment	6	a	stormwater	management	watershed-wide	
40	Interest Group	FOLW	6	a	stormwater	management	watershed-wide	
41	County	Dane Land Conservation Dept.	6	a	stormwater	management		Can provide technical assistance
32	University	UW Arboretum	6	b	stormwater	demonstration	management	Planting raingardens at Arboretum promoting their use elsewhere.
40	Interest Group	FOLW	6	b	stormwater	management	watershed-wide	
8	City	City of Madison Engineering	6	c	stormwater	management		City Engineering looks at new treatment options constantly.
30	Interest Group	FOLW	6	c	stormwater	management		
6	Interest Group	FOMB	6	d	streets	demonstration		FOMB may have future activities to support an intensive street sweeping pilot project
8	City	City of Madison Engineering	6	d	streets	demonstration	research	City Engineering is working with WDNR & USGS on street sweeping pilot study currently.
29	Neighborhoods	DMNA	6	d	streets	demonstration		DMNA is exploring a street sweeping project along with Vilas neighborhood.
30	Interest Group	FOLW	6	d	streets	demonstration	research	FOLW is exploring the possibility of an intensive street sweeping project in LW watershed.
13	City	Commission of the Environment	6	e	invasives	policy		
13	State	UW Lab of Hygiene	6	e	invasives	management		
33	Interest Group	FOLW	6	e	invasives	management		
13	State	UW Lab of Hygiene	7	a	water quality	monitoring		
14	City	City of Madison Health Dept.	FOLW, USGS	7	a	water quality	monitoring	City monitors bacterial and chemical conditions on the beaches and outfalls as part of the EMPACT grant.
33	Interest Group	FOLW	7	a	water quality	monitoring		

49	Federal	USGS	City of Madison Health Dept.	7	a	water quality	monitoring		USGS monitoring of beach water quality (temperature, turbidity, conductivity, pH, dissolved oxygen, chlorophyll, etc.) as part of their role in the EMPACT project.
7	Neighborhoods	Westmoreland N.A.		7	b	stormwater	citizen involvement		
13	City	Commission of the Environment		7	b	stormwater	citizen involvement		
13	Neighborhoods	Vilas N.A.		7	b	stormwater	citizen involvement		
33	Interest Group	FOLW		7	b	stormwater	citizen involvement		
5	University	UWLTER		7	c	macrophytes	monitoring		UWLTER monitoring macrophytes
12	State	WDNR		7	c	macrophytes	monitoring	research	Could lead or assist with an effort to survey macrophyte diversity and abundance in July 2003.
13	State	UW Lab of Hygiene		7	c	macrophytes	monitoring		