

Minnesota Project WET Program Needs Assessment

May 2007



Background & Rationale:

In 2006, the Minnesota Project WET Advisory Board and staff determined that a participant needs assessment was vital for program improvement. The group outlined goals and potential questions and hired contractors to create an online tool to better understand participant needs, and the barriers to using the curriculum. This survey was posted at www.surveymonkey.com, and targeted workshop attendees from July 2003 to June 2006.

Survey Development and Distribution

The pilot survey was drafted and tested with a group of 64 participants. Seventeen participants (27%) completed the pilot. Pilot participants received a new CD ROM of student copy pages to accompany their Project WET curriculum guide as an incentive.

The contractors finalized the survey based on pilot results and feedback from Project WET board and staff. The final survey was sent to workshop participants with documented email addresses from January 2003-June 2006. It should be noted that although 1,156 participants attended workshops in that time frame, email addresses were only available or collected for 620 workshop participants. Of the 620 email addresses the survey was sent to, approximately 100 email addresses bounced back, leaving a final sample population of 520. Fifty-six participants (11%) completed the survey. A \$50 gift card drawing was included as incentive to complete the survey. Note that some participants did not complete all questions in the survey, so respondent numbers vary throughout the results.

Section 1: Project WET Workshops

Respondents were asked about when and why they attended a workshop, what knowledge and skills they learned during and applied after the workshop and suggestions for workshop improvement.

Key Findings

1. **Respondents attended workshops for multiple reasons.** The primary reasons respondents attended Project WET workshops were to learn more about water education (66%; 37 responses) or to receive the Project WET guide (39%; 22). Additional reasons cited include because the workshop was associated with Project Learning Tree and Project WILD (21%; 12). Six respondents (11%) attended for graduate credit.
2. **Respondents had positive things to say about workshop usefulness.** When asked for the most important skills learned at a workshop, by far the most frequent response (77%; 43) was ‘how to use the guide/doing activities’. Other responses included: Connecting environmental or water education to classroom curriculum and academic standards was a critical part of the workshop; the guide and activities were fun, easy, and creative; learning basic facts about water was an important part of the Project WET workshop.
3. **Seventy-seven percent (43) of the respondents indicated they left workshops feeling comfortable with the Guide’s overall set up and knowing how to effectively use it once they return to classrooms.** One of the primary goals of Project WET workshops is for educators to leave feeling knowledgeable about the Guide and comfortable using it. These survey results indicate the workshops are achieving that goal. However, it would be advantageous for MN Project WET to address the 23% (13) that do not feel comfortable implementing the Guide or activities following the workshop.
4. **Respondents learned new skills at workshops.**

Table 1 summarizes the skills respondents attributed to learning at the workshop.

Skill	% Participants (# of Respondents)
How to use the Project WET Guide	76% (43)
Inquiry skills	43% (24)
Curriculum / lesson planning	39% (22)
How to customize lessons	36% (20)
Science Observation Skills	27% (15)

Table 1

While most respondents attended workshops to learn more about water education or to receive the Project WET Guide, they left with other skills as well. As shown in table 1, many respondents indicated like they had gained skills in inquiry, and that the workshops were genuinely helping them prepare for integration into their classrooms and curriculum.

5. **Most respondents are using what they learn in the workshop.** Even if they had suggestions for improvement, respondents are generally using what they learn in the workshop. Eighty percent (46) said they are using new knowledge and skills “sometimes” or “all of the time.” This indicates the workshops are achieving another of their primary goals which is for educators to use the Guide in their classrooms.
6. When asked how workshops could be improved, by far the most respondents said no improvements were needed. **Several notable suggestions for improvement are to do more activities, include more *different* activities, allow time for respondents to replicate an activity, and one request to cover more activities in less detail.**

Section 2: Project WET Guide

Respondents were asked questions related to how they use the Guide, their frequency of use, the most and least useful aspects of the Guide, and a series of questions about specific activities they learned and used. These questions were asked to get an understanding of Guide use, but it should be noted that because the Project WET is a national program, MN Project WET alone cannot make changes to the guide, but can only supplement the guide as needed. The guide is due for national revision and MN Project WET will participate in that process and provide this and additional evaluation feedback to the revision team.

Key Findings

1. **Most respondents are not using the guide as often or at a level of integration as they would like.** (see table 2). When asked to explain why, 35% (6) of the responses indicated they did not have time to teach WET activities because of everything else that they need to fit in. Approximately half of those that didn't use the guide as much as they wanted to, were still in school, substitute teaching, new teachers, or for other logistical reasons had been unable to integrate it into their curriculum.

During the last 12-18 months, how often have you used the Project WET K-12 Curriculum and Activity Guide?				
	Not at all	Once or twice	A few times	Often
Use of guide	19% (10)	32% (17)	42% (22)	8% (4)

Table 2

2. **Most respondents have used the Guide on a piecemeal basis.** Most 53% (23) respondents use the guide to supplement their curriculum, to plan water or similarly based units in their classroom, or for special focus days or events. Others use it as a reference or resource. Only two respondents said that they use it to help fulfill state or district requirements.
3. **Respondents generally find the Guide useful, with the most useful aspect being the variety of engaging hands-on activities.** Table 3 shows the useful aspects identified.

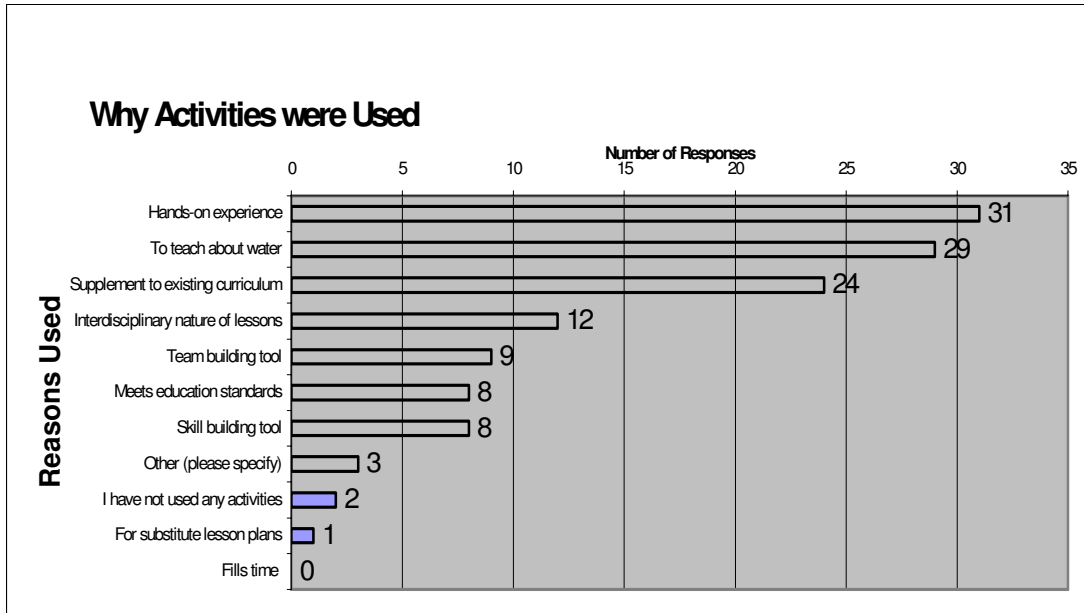
Useful Aspects of Guide	# Responses	% Responses
Hands-on activities	41	79%
There is a variety of activities	29	56%
Activities engage audiences	25	48%
Instructions are easy to follow	23	44%
Organization of the guide	22	42%
Guide is cross-referenced	18	35%
Other (please specify)	3	6%
I have not used the Guide	3	6%

Table 3

Twenty percent (29%) of the respondents did not identify a “least useful” aspect of the Guide, but instead wrote in “none”. Some of the lesser useful aspects listed or indicated by participants were:

- Difficultly to find a particular lesson.
- Activities are not age appropriate for grade level 9-12.

- Guide isn't adapted to specific audiences/grades (special ed., gifted & talented, etc.).
 - Book logistics (too big to carry around, too hard to photocopy).
 - Activities don't always apply to curriculum.
4. **Respondents are likely to use and teach the activities demonstrated at the workshops.** Four of the top ten activities that respondents most commonly used in the classroom were also four of the top ten activities most commonly included at workshops from 2003-2006.
5. **Activities were primarily used for their hands-on nature, to teach about water and to supplement existing curriculum.** See graph 1.



Graph 1

Respondents agreed that the Project WET Guide helped them with their work by being an easy-to-use resource, readily available, and source for creative ideas and activities. With the exception of two responses (respondents that did not use the materials) the remaining comments were positive and helpful.

Section 3: Communication & Resources

Respondents were asked to state if they were aware of and used additional products/services from MN Project WET, how they'd rank those products/services they had used, and how likely they were to use additional products/services in the future.

Key Findings

1. **There is not one universal additional resource or type of support that MN Project WET staff could offer to assist participants in increasing their use of Project WET.** Fifteen (31%) of the responses were “don’t know” or “none”. There were several other ideas brought up 2-5 times, including:
 - Offering advanced or refresher courses
 - Offering more grade-specific activities/guides (especially early childhood and high school)
 - Finding more time for teachers to implement
 - Offering lesson updates and resources available via emails or online
 - Electronic version of book for printing activities
 - More MN-specific activities/adaptations
 - Have Make’n Takes or prepackaged activities that can be purchased
 - More on website for ideas, activities, links to resources, professional presenters
 - Access to funding for field experiences, to implement activities
 - Application for specialists, action groups, Scouts, etc.
 - More with MN Standards integration
2. **The majority of respondents were not aware of or had used most of the additional products or services offered by MN Project WET.** See table 4.

Are you familiar with the following services/support provided by MN Project WET?		
	Yes	No
Thematic curriculum guides (Healthy Water, Healthy People, Wonders of Wetlands, Conserve Water, Discover a Watershed: Watershed Manager, etc.)	29% (14)	71% (34)
Customized advanced/thematic workshops (water quality, water conservation, wetlands, watersheds, stormwater, groundwater, WET for non-science teachers, etc.)	23% (11)	77% (37)
MN Project WET website	65% (31)	35% (17)
Project WET USA website	44% (21)	56% (27)
Posters, resources, student materials	54% (26)	46% (22)
Kits for checkout (ground water model, watershed model, wetlands trunk, water quality testing kits, etc.)	38% (18)	63% (30)
Support to find materials, contacts and resources	52% (25)	48% (23)

Table 4

More than half of the 44 responses indicated that respondents had not used thematic guides (59%), customized workshops (81%), kits (81%), support materials (71%) or WET USA website (64%). About half had used the remaining resources. Of all those that were used, they were rated good to excellent. See table 5.

If you answered "Yes" to ANY item in Q26, please rate the following services/support provided by Project WET.

Products/Services	Poor	Fair	Good	Excellent	Haven't Used
Thematic curriculum guides (Healthy Water, Healthy People, Wonders of Wetlands, Conserve Water, Discover a Watershed: Watershed Manager, etc.)	0% (0)	0% (0)	9% (3)	31% (10)	59% (19)
Customized advanced/thematic workshops (water quality, water conservation, wetlands, watersheds, stormwater, groundwater, WET for non-science teachers, etc.)	0% (0)	0% (0)	6% (2)	13% (4)	81% (25)
MN Project WET website	0% (0)	0% (0)	39% (15)	13% (5)	47% (18)
Project WET USA website	0% (0)	0% (0)	24% (8)	12% (4)	64% (21)
Posters, resources, student materials	0% (0)	0% (0)	18% (6)	32% (11)	50% (17)
Kits for checkout (ground water model, watershed model, wetlands trunk, water quality testing kits, etc.)	0% (0)	0% (0)	10% (3)	10% (3)	81% (25)
Support to find materials, contacts and resources	0% (0)	0% (0)	9% (3)	21% (7)	71% (24)

Table 5

3. **Respondents' likelihood to use additional products/services provided by MN Project WET varies greatly.** Table 6 shows that the resources very likely to be used by at least 30% respondents are the MN WET website, USA WET website, posters/student materials. Those service/support items somewhat likely (#3) to use them (at least 30%) were thematic guides, customized workshops, and support to find materials.

28. If you answered "No" to ANY item in Q26, please rate the likelihood (1=Not Likely, 4=Very Likely) that you would use the service/support provided by Project WET.					
Products/Services	Not likely	Somewhat unlikely	Somewhat likely	Very likely	Don't Know
Thematic curriculum guides (Healthy Water Healthy People Wonders of Wetlands Conserve Water Discover a Watershed: Watershed Manager etc.)	15% (5)	12% (4)	32% (11)	15% (5)	26% (9)
Customized advanced/thematic workshops (water quality water conservation wetlands watersheds stormwater groundwater WET for non-science teachers etc.)	14% (5)	23% (8)	31% (11)	11% (4)	20% (7)
MN Project WET website	19% (5)	8% (2)	12% (3)	35% (9)	27% (7)
Project WET USA website	22% (7)	9% (3)	12% (4)	34% (11)	22% (7)
Posters resources student materials	14% (4)	7% (2)	24% (7)	31% (9)	24% (7)
Kits for checkout (ground water model watershed model wetlands trunk water quality testing kits etc.)	18% (6)	18% (6)	15% (5)	24% (8)	26% (9)

Table 6

4. **Respondents indicated that the most useful proposed new service would be a Minnesota Supplement followed by somewhat useful/important aspects of more in-depth MN WET website and "make and take" workshops.** See section 4 for more details on a MN Supplement.

1=Not Useful and 4=Very Useful.	1	2	3	4	Response Average
E-newsletter	11% (5)	32% (15)	49% (23)	9% (4)	2.55
Listserve	36% (17)	51% (24)	11% (5)	2% (1)	1.79
More in-depth resources on Minnesota Project WET website	4% (2)	17% (8)	53% (25)	26% (12)	3.00
Minnesota Supplement	4% (2)	6% (3)	30% (14)	60% (28)	3.45
Make & Take workshops to create activity kits of your own	13% (6)	21% (10)	34% (16)	32% (15)	2.85
Support to help integrate WET into curriculum	21% (10)	32% (15)	28% (13)	19% (9)	2.45
Searchable database of correlations to academic standards	32% (15)	26% (12)	34% (16)	9% (4)	2.19
Meeting with MN Project WET throughout the school year	26% (12)	40% (19)	23% (11)	11% (5)	2.19

Table 7

5. **In the past 12-18 months, 68% of respondents used additional water curricula.** The most commonly reported additional curricula are summarized in table 8.

Curriculum	Responses
FOSS Kits	44% (15)
Other Project WET thematic Guides	38% (13)
Project WILD Aquatic	35% (12)
Big River Journey Teacher Guide	24% (8)

Table 8

6. **Respondents primarily use the Internet to gather new information.** Lesser but other common sources include libraries, environmental/nature centers, science/cultural institutions, periodicals, and lastly, school districts.

7. **Respondents find out about professional development opportunities through a variety of ways.** See table 9 for a prioritized list.

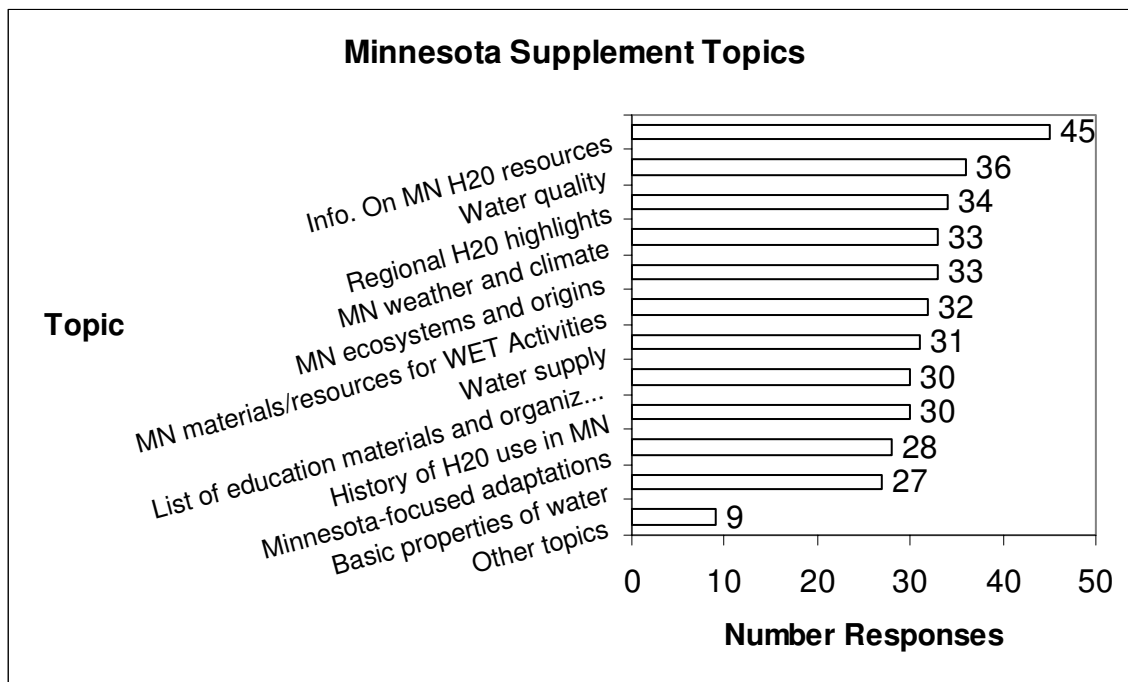
Resources	Responses
Internet	68% (30)
Colleagues	57% (25)
Direct mail	43% (19)
e-Newsletters	41% (18)
Print newsletters	32% (14)
Other (please specify)	7% (3)
Listserv	5% (2)

Table 9

Section 4: Minnesota Supplement

Respondents were informed that MN Project WET is considering creating a Minnesota specific supplement to the Guide. They were given a list of potential content to include and asked about preferred format.

- 1. Respondents were receptive to the idea of a Minnesota specific supplement.** When asked the likelihood they would use the supplement, respondents responded favorably. Seventy-six percent indicated they would be likely or very likely to use the supplement. It should be noted that even given this large amount of support for a Minnesota based supplement, the lack of this information was not seen as a barrier to implementing the curriculum. (See section 5 on barriers for more information.) Although only 4% (2) indicated they were not likely to use it, 19% (9) didn't know if they would use it at all. There seems to be a *declared* interest in a Minnesota-specific supplement that includes basic MN water resource information and a variety of other topics, however, this is based on stated intent, so may be optimistic.
- 2. Respondents want everything included in the proposed supplement!** While all of the suggested potential topics to include in the supplement were selected by over half of the respondents, the one topic that stood out above all others was 'information on Minnesota's water resources.' The rest are shown in graph 2. Respondents first choice for supplement format is overwhelmingly a paper booklet, followed by an online booklet or CD-ROM. Workshops or trunks/kits ranked low as preferred supplement format. A booklet could be developed and offered in paper, online and/or CD-ROM.



Graph 2

Section 5: Barriers

Respondents were asked what barriers to implementing Project WET they had encountered.

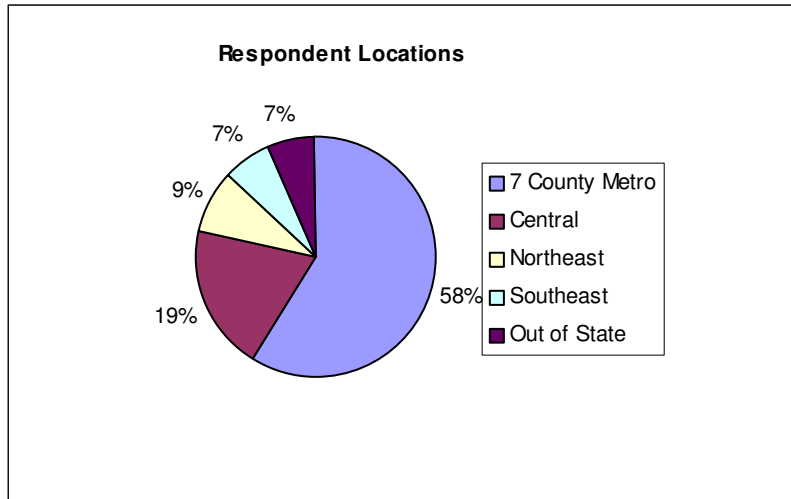
Key Findings:

1. **The transition between *learning* about activities at the workshop and *using* the activities in their formal or non-formal education setting was not always successful.** Some of it may have to do with workshop design, such as a desire to spend more time with practicing activities, learning more activities and incorporating them. Some comments suggested that teachers use the same small set of activities. Other struggles have to do with the lack of time to incorporate the guide/activities.
2. **Activities don't seem to be as useful to 9-12 teachers as to other groups.** When asked what was least useful about the Project WET Guide, 14% (7) of the responses were that activities are not developmentally appropriate for high school students.
3. **Fifty-two percent (22) of responses indicate the main barrier to implementing Project WET is lack of time to incorporate it into their existing programs/curriculum.** The time it takes for participants to apply the activities to their work and/or adapt it to their curriculum is one of the biggest barriers to Project WET use. Many of the detailed responses echo this time issue. Other significant barriers include:
 - Lack of funding for class field trips to implement Project WET activities – 26% (11)
 - Lack of time to follow-up to training (to pursue WET activities) – 24% (10)
 - Unsure of how to integrate into my curriculum – 19% (8)
 - Aligning with state standards – 9% (4)
 - Lack of funding to create Project WET activities – 9% (4)
4. **The “lack of supplemental information on Minnesota” does not seem to be presenting itself as a barrier to using Project WET activities.** Although respondents were interested in a new Minnesota-specific supplement to the Project WET Guide (see section 4), only one respondent independently indicated that lack of supplemental information to apply Project WET to Minnesota/my community was a barrier.

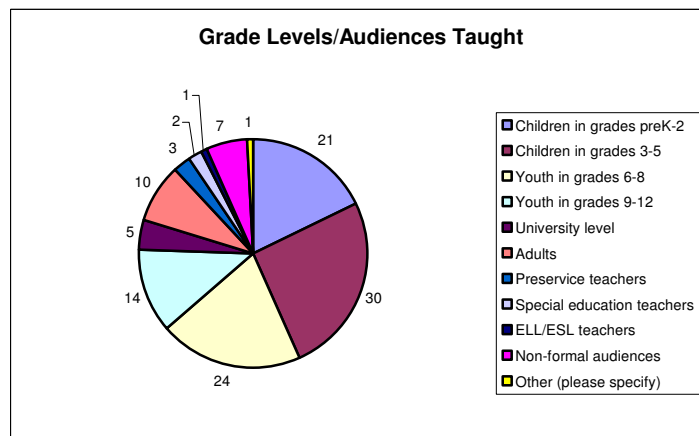
Section 6: Demographics

Key Findings

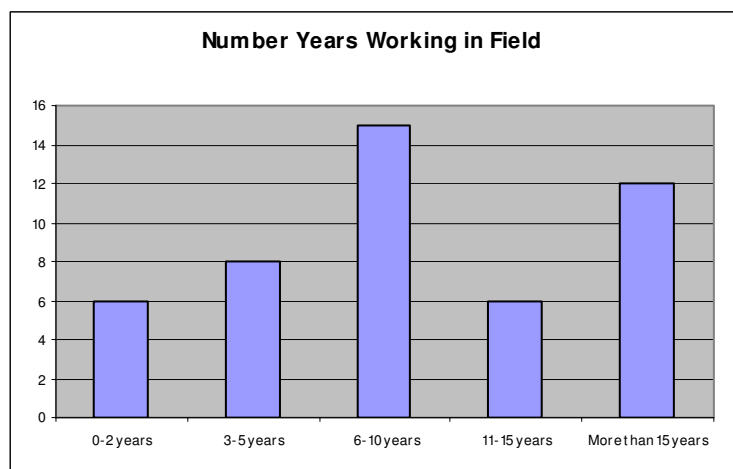
- Seventy-two percent of respondents were women and ninety-three percent were Caucasian. Thirty-five percent of respondents participated in a Project WET training in the last 12 months, while more than half the respondents participated 2 or 3 years ago. The following graphs provide a snapshot of participant backgrounds. For the demographics section, N=47.



Graph 3



Graph 4



Graph 5

Overall Recommendations

Based on the data analysis, MN Project WET has identified what participant needs are currently being addressed and potential ways to meet those not yet being addressed adequately. The MN Project WET Advisory Board and staff will be setting priorities taken from this data and the list of suggestions below.

Already Being Addressed...

- Created a CD-ROM of all copy pages from curriculum guide.
- Correlated Project WET Guide to science, language arts and math standards and created an online correlations database for teachers to use in integrating curriculum.

Keep doing these things...

- Coordinating and offering combined workshops with Project Learning Tree, Project WILD, and other curriculum programs.
- Offering opportunities for graduate credit.
- Teaching participants how to use the WET guide and activities at workshops.
- Being fun and engaging at workshops.
- Focusing on inquiry skills at workshops.
- Continue to offer workshops for specific grades or audiences (especially high school).
- Allow time at workshops for participants to review activities that aren't led.
- Discuss ways to customize activities during workshops.
- Keep reaching out to educators of all levels of experience.

Suggestions for WET moving forward...

Marketing

- Improve participant data tracking and database (especially email addresses).
- Offer more workshops of different lengths (i.e. 2 shorter days vs. 1 long, 2 whole days of training with the second day being more in-depth for your grade).
- Offer more grade-specific workshops (and more narrowed ranges).
- Offer more adaptations and workshops designed for specific audiences (i.e. special ed teachers, gifted & talented teachers, etc.)
- Offer advanced and refresher workshops.
- Offer "make and take" workshops. (possible grant opportunity)
- Reach out to new audiences.
- Determine what resources and product MN Project WET will offer to participants and determine how to most effectively promote those resources.
- Foster relationships between classes of WET graduates and County Water Planners and/or Lake Associations to foster community service learning, applied projects, and intergenerational interaction.

Incorporating Project WET

- Explore opportunities to help educators incorporate Project WET into their curriculum and academic standards in and outside workshops.
 - Include more curriculum integration and planning time and assistance during workshops.
 - Have formal educators bring their syllabus or curriculum to the training and have access to the academic standards correlations database.
 - Offer examples of actual curriculum that has incorporated specific activities. Not just what age-level, and what state standards were met.

- Invite veteran educators to share experiences at workshops.
- Engage success stories! Have grade-appropriate teachers available to discuss how they have used specific activities and how they have incorporated WET into their curriculum
- Include more emphasis on assessment and possibly develop more example assessments or rubrics at workshops.
- Prioritize individualized “follow-up help” from Project WET to review curriculum with teachers and discuss how specific activities could be used.
- Maintain a list of volunteer educators, non-formal educators, or other presenters that can volunteer or be hired to go into the classroom to implement activities or support teachers
- Create a webpage or brochure that showcases *how* high school teachers have specifically used the guide. Include which activities were used for which classes, how they adapted activities, etc. Hand this out at trainings. Follow-up with HS teachers by sending it as an email, etc.
- Work to correlate Project WET with other commonly used water curricula. Offer at workshops and online.
- Prioritize time to work with teachers on how to incorporate specific activities – perhaps one of the benefits of attending the training would be “2 free hours of follow-up time with PWET staff to incorporate these activities into your curriculum.
- Offer cohort group connections after workshops.

Workshops

- Work with all participants to make sure they’re comfortable with implementing Project WET activities. (add implementation plans to workshops or offer follow-up assistance.)
- Offer more and different activities in workshops.
- Offer brief activity samplers during the workshop to showcase more activities.
- Trainings could stress using lessons together to create a larger whole.
- Include practice finding activities at workshops – include “Hikes through the Guide”.
- Promote and demonstrate academic standards correlations database at workshops.
- Increase discussion of activity modifications at workshops.

Curriculum & Resources

- Create more grade-specific adaptations or activities for preK and high school levels.
- Work with WET USA to introduce new activities into the curriculum (especially preK & high school)
- Offer lesson updates and resources on the MN Project WET website.
- Create a MN-specific adaptations to Project WET/supplement to Project WET.
 - Consider the best way to move forward with MN supplement that is most effective for staff time – such as engaging regional partners to provide supplemental information.
- Prioritize which products and services to provide to participants and promote them adequately.
- Investigate ways to help teachers with time issues.
- Investigate ways to help teachers with funding issues.
 - Pursue grant opportunities to engage successful teachers as short-term consultants to help workshop participants with their curriculum. Another option would be additional PWET staff.
 - Consider a small-grants program for materials.

Potential Future Research

- Possibly hold focus groups with workshop participants to look more closely at barriers, resources (i.e. MN Supplement) and survey results.
- We would like to find out more directly what barriers still exist for the 25% who are not using the skills and background knowledge gained at workshops.
- Gather information from administrators and curriculum specialists from participating teaching locations.
- Of note was that only one participant had not attended a training previously which may suggest further research into meeting repeat participant needs.
- Additional needs assessments can be completed in the future to find out who the program is not reaching (educators that have not attended workshops) and why.