

6. Recorder, please work with your group to complete all parts of this worksheet. Please write clearly and legibly. Important: You are free to take additional time to complete this worksheet. Turn in to Mike & Alison by Friday, April 5.

A. List your project category and all members of your group.

Project category	GW RECHARGE
Recorder	NICK BOWER
Additional group members	JEREMY BRADLER MARTIE GRIFFITH

B. Projects recommended for initial exploration by the stakeholder group

	Projects recommended for initial exploration by the group	Why you are recommending this project	Anything else it would be helpful to understand about this project
1	ODANA GOLF COURSE - STORMWATER TREATMENT & INJECTION INTO DRAIN FIELDS	PHYSICAL OR RESEARCH BEEN DONE BEFORE	STEVE GAFFIELD CASE STUDY
2	SW INFILTRATION ON HIGH RECHARGE SOILS - RECHARGE MAP + BMC WATER-SHED OVERLAY	IDENTIFY LOCATIONS FOR RECHARGE PRACTICES	- LAND OWNERSHIP/CONTROL - DEVELOPMENT PRACTICE PATTERNS VS HIGH RECHARGE AREAS
3	GOOSE LAKE DRAIN TILE	PROVIDE BASIS FOR IF THERMAL CAN BE MITIGATED	- THERMAL CONTROL OPTIONS - CONSTRUCTABILITY (DEPTH CONSIDERATIONS / PERMITTING)

**C. Topics and resources recommended to help select projects**

	What would you like to learn or share with the group that would help to refine and select projects within this project category?	Can you recommend any speakers, research or other resources related to this question?	If this is related to a specific project above, please list that project here
1	<p>VOLUMETRIC IMPACT OF ANY PRACTICE PUT IN PLACE - HOW TO QUANTIFY NET BENEFIT (E.G. WHAT % OF RECHARGE RESULTS IN BASEFLOW)</p>	<p>WGNHS STEVE GAFFIELD/EOR GREG FRIES/JEREMY BAROUER</p>	
2	<p>TIME FOR RUNOFF RECHARGE TO BECOME BASEFLOW IN BMC - AND CONSIDERATIONS OF ACQUIFERS (UPPER/LOWER)</p>	<p>WGNHS</p>	
3	<p>THE TOTAL WATER BUDGET</p>		

Recorder, please capture your group's recommendations clearly, concisely and legibly.  
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# Project Idea Generation Worksheet

Badger Mill Creek Stakeholder Group

March 2024

## 1. Sit by the Project Category that you wish to work on developing

Project categories that rose to the top in our February straw poll include the following. You are free to work on another project category if that is a higher priority for your organization. Example projects are shared for project categories where we thought that might be helpful to start the brainstorming.

<i>Project categories</i>	<i>Project Examples</i>
Baseflow augmentation (280 points/25%)	<ul style="list-style-type: none"><li>• Look the supply side of shallow ground water by review of HICAP wells in the area if there are sufficient number and draws from the shallow aquifer - look to modification of existing wells to draw from deeper aquifer instead of shallow aquifer – most likely that would be done by connection to municipal water supply. This would require a look at Fitchburg and Verona policies regarding providing public water to properties that are not in their jurisdiction.</li><li>• Work with the Fitchburg project at Goose lake to lower the water levels in Goose Lake via drain tile to under lands adjacent to the lake and drain the “filtered” water to UBMC</li><li>• Construct an infiltration basin near goose lake – pump goose lake water into the infiltration field and nearby install a well in the shallow aquifer to pump water to UBMC during specific drought events.</li><li>• Look at potentially installing a deep water aquifer well and augmenting UBMC during drought conditions similar to the system used for the COGEN plant.</li></ul>
Groundwater recharge (195 points/18%)	<ul style="list-style-type: none"><li>• Stormwater infiltration at (<u>location</u>) – noted above – to be paired with a</li></ul>
Watershed management plan (125 points/11%)	<ul style="list-style-type: none"><li>• Contract with UW Water Resources Management practicum (or another organization) to develop a comprehensive watershed management plan for the Badger Mill Creek watershed</li></ul>

	<ul style="list-style-type: none"> <li>Review of the “predevelopment” baseflow to the UBMC by completing simulations with the DC Groundwater model and rolling the watershed back in time to see what the “historic” amount of baseflow was.</li> </ul>
Wetland restoration (115 points/10%)	
Shoreland buffers (85 points/8%)	
Bank restoration/ stabilization (75 points/7%)	<ul style="list-style-type: none"> <li>Dane County project presentation</li> </ul>

2. **On your own. Take a few minutes on your own to generate potential project ideas.** Use the space below for notes.

Physical projects	
Research projects	

3. **At your table, appoint a facilitator/timekeeper and a recorder.** Your facilitator/ timekeeper is responsible for ensuring you hear from everyone. Your recorder is responsible for capturing group decisions on the next page.

4. **Round robin. Go around your table and each share one idea** without elaboration. Keep going around until everyone has shared all their ideas. Use the space below to take notes for yourself if desired.

5. **Discuss as a table.** Use the space below to take notes for yourself if desired.

- Which projects would you like to put forward for initial exploration by the group? Why?

- b. What would you like to learn or share with the group that would help to refine and select projects within this project category? Can you recommend any speakers, research or other resources?

**6. Recorder, please work with your group to complete all parts of this worksheet.**

*Please write clearly and legibly.* Important: You are free to take additional time to complete this worksheet. **Turn in to Mike & Alison by Friday, April 5.**

**A. List your project category and all members of your group.**

Project category	<b>Baseflow augmentation</b>
Recorder	Brian Christian, Friends of BMC Environmental Corridor
Additional group members	Ben Schulte, City of Fitchburg Greg Fries, City of Madison Kathy Lake, Madison Metropolitan Sewerage District Topf Wells, Trout Unlimited Southern Wisconsin Chapter David Rowe, WDNR

**B. Projects recommended for initial exploration by the stakeholder group**

	Projects recommended for initial exploration by the group	Why you are recommending this project	Anything else it would be helpful to understand about this project
1	<p>Periodic pumping of Goose Lake surface water to adjacent location that would enable infiltration and groundwater discharge to BMC</p> <p>Pumping of groundwater from well in shallow aquifer to reduce Goose Lake level. Discharge directly to BMC</p>		Does groundwater pumping in the shallow aquifer also reduce discharge?
2	<p>Construct channel(s) from Goose Lake to adjacent location that would enable infiltration and groundwater discharge to BMC</p> <p>Place drain tile near Goose Lake (including area to North near quarry pond). Discharge directly to BMC</p>		How will channel affect the natural pond southwest of Goose Lake ?
3	Determine water use and surface water		

	<p>management plans for the planned SSM clinic to evaluate how this may be used to benefit BMC</p> <p>Nesbit pond idea.....</p>		
	<p>Identify private wells that draw from the shallow aquifer and have the potential to reduce BMC baseflow. Substitute these with municipal water source.</p>		
	<p>Contract with outside experts to characterize the groundwater and surface water hydrogeology/infiltration of the project area with respect to impacts on BMC baseflow. Include project-specific needs (eg well impact) as applicable.</p>		
	<p>Question....Is reconnecting BMC to adjacent wetlands (eg re-meandering channel) a meaningful way to increase baseflow?</p> <p>Question.....Can the large spring complex near the PB park &amp; ride be tapped to augment flow?</p>		
	<p>All agreed most ideas are dependent on obtaining further information on site hydrogeologic conditions. Assume this need is covered by Topf's idea.</p>		

**C. Topics and resources recommended to help select projects**

	What would you like to learn or share with the group that would help to refine and select projects within this project category?	Can you recommend any speakers, research or other resources related to this question?	If this is related to a specific project above, please list that project here
1	<p>Water budget for shallow aquifer including: surface waters losses (BMC), withdrawals (wells), infiltration, and movement between deep and shallow aquifer. can we model groundwater elevations and surface flows to represent predevelopment and current conditions?</p>	<p>Wisconsin Geological and natural History survey hydrogeologist Mike Parsen</p> <p><a href="#">Dane County groundwater model – WGNHS – UW–Madison (wisc.edu)</a></p> <p>Matt Diebel? USGS</p>	<p>Several of the above projects</p>
2			
3			

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# Project Idea Generation Worksheet

*Badger Mill Creek Stakeholder Group*

*March 2024*

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<i>Project categories</i>	<i>Project Examples</i>
Baseflow augmentation (280 points/25%)	<ul style="list-style-type: none"><li>· Modification of existing wells to draw from deeper aquifer instead of shallow aquifer</li><li>· Drain tile to lower water levels at Goose lake</li></ul>
Groundwater recharge (195 points/18%)	<ul style="list-style-type: none"><li>· Stormwater infiltration at (<u>location</u>)</li></ul>
Watershed management plan (125 points/11%)	<ul style="list-style-type: none"><li>· Contract with UW Water Resources Management practicum (or another organization) to develop a comprehensive watershed management plan for the Badger Mill Creek watershed</li></ul>
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- a. Which projects would you like to put forward for initial exploration by the group? Why?

Develop a comprehensive management plan seems a logical next step that also could/would include priorities #1 and #2, base flow augmentation and groundwater recharge respectively.

b. What would you like to learn or share with the group that would help to refine and select projects within this project category? Can you recommend any speakers, research or other resources?

Specific projects could all come out of the Watershed Management Plan (WMP).

Studies/Research Projects ideas that would support WMP.

- Asset inventories (species other than fish, recreational amenities, etc.) – could get community participation with inventories
- Comprehensive set of mapping
- Community input – goal to increase public awareness and buy-in.
- Modeling (climate variability, urban development, economic shifts)
- How could community types be affected by projects?
- Issues assessment

Need to include existing amenities and community assets as well as future assets like educational information.

DNR Comprehensive Planning Grant could set projects up for long-term implementation funding.

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**A. List your project category and all members of your group.**

Project category	Watershed Management Plan
Recorder	Melissa Michaud
Additional group members	Joleen Stinson Robert Bohanan

**B. Projects recommended for initial exploration by the stakeholder group**

	Projects recommended for initial exploration by the group	Why you are recommending this project	Anything else it would be helpful to understand about this project
1	Design studies to create an inventory of assets (biological, hydrological, infrastructure (eg. Ice Age Trail, Dane Co trails, past restoration efforts), volunteer groups, existing maps and data.	Provide data to make informed decisions both short-term and long-term	
2	Community needs assessments	Generate community awareness, buy-in and support.  Gain an understanding of the community's watershed priorities across jurisdictional boundaries. (Most planning efforts are within these boundaries, not at a watershed level)	

3	Watershed Management Plan would provide support to help guide and coordinate partnerships across government agencies, municipalities, friends and neighborhood groups, businesses and educational institutions and groups	A watershed management plan could help mobilize support for a broad range of goals and activities across potential disparate groups	
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**C. Topics and resources recommended to help select projects**

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1	Existing inventories of assets, as described above, in a single or relational database including maps	May need presenters from various agencies or discuss who could gather data and present it. Don't have a specific recommendation at this time.	B.1
2			

3			
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