TOWN COUNCIL – AGENDA REQUEST FORM

THIS FORM WILL BECOME PART OF THE BACKGROUND INFORMATION USED BY THE COUNCIL AND PUBLIC

Please submit Agenda Request Form, **including back up information**, 8 days prior to the requested meeting date. **Public Hearing requests must be submitted 20 days prior to requested meeting date to meet publication deadlines** (exceptions may be authorized by the Town Manager, Chairman/Vice Chair).

MEETING INFORMATION

Date Submitted: September 6, 2018
Submitted by: Four Seasons Homeowners Association
Department:
Speakers: Sharon Hickey

Date of Meeting: September 13, 2018
Time Required: 15 minutes
Background Info. Supplied: Yes: ☒ No: ☐

CATEGORY OF BUSINESS (PLEASE PLACE AN "X" IN THE APPROPRIATE BOX)

Appointment:	☐	Recognition/Resignation/ Retirement:	☐
Public Hearing:	☐	Old Business:	☐
New Business:	☒	Consent Agenda:	☐
Nonpublic:	☐	Other:	☐

TITLE OF ITEM

Four Seasons Homeowners Association Request for Letter of Support

DESCRIPTION OF ITEM

Town Council to consider the Four Seasons Homeowners Association's request for a letter of support from the Town of Merrimack to be included with the Association's pre-proposal application for a Watershed Assistance Grant to support local initiatives to restore impaired waters or protect high quality waters.

REFERENCE (IF KNOWN)

RSA:	Warrant Article:
Charter Article:	Town Meeting:
Other:	N/A

EQUIPMENT REQUIRED (PLEASE PLACE AN "X" IN THE APPROPRIATE BOX)

Projector:	☐	Grant Requirements:	☐
Easel:	☐	Joint Meeting:	☐
Special Seating:	☐	Other:	☐
Laptop:	☐	None:	☐

CONTACT INFORMATION

Name:	**Sharon Hickey**	Address	
Phone Number		Email Address	sjhickey1@gmail.com

APPROVAL

Becky Thompson

From: Sharon Hickey <sjhickey1@gmail.com>
Sent: Friday, September 07, 2018 12:09 PM
To: Becky Thompson
Subject: Four Seasons application for NH DES Watershed Assistance Grant
Attachments: Pre-proposal Application Form version 3.doc

Hi Becky,

Please see attached pre-grant application which the Four Seasons HOA plans to submit to NH DES for the purpose of obtaining a Watershed Assistance Grant. The pre-grant applications are due on 9/21/2018, and the attached is 3rd draft of the application.

Part of the grant process requires letters of support from stakeholders and affected parties to explain how the writers will benefit from the project.

I appreciate your help in getting this on the agenda! Sincerely, Sharon Hickey

2019 WATERSHED ASSISTANCE GRANTS
PRE-PROPOSAL APPLICATION FORM

Watershed Management Bureau/Watershed Assistance Section

The pre-proposal submittal deadline is 4 PM on September 21, 2018.

RSA/Rule: Voluntary

Applicants are required to call or email us to discuss their pre-proposal prior to completing this form and no later than **September 7, 2018.**

1. Project Title

Baboosic Lake Watershed Plan Implementation Phase 4: Four Seasons Beach Area BMPs.

Format: *Name of the waterbody, watershed plan implementation, project phase and description Example: Crystal Lake Watershed Management Plan Implementation Phase 2: Smith Street BMPs*

2. Applicant Information

A. Organization Name: Four Seasons Property Owner's Association

B. Project Manager

Project manager's name:	Sharon Hickey
Title:	Association President
Affiliation:	Association President
Street address:	3 Surrey Ln
City, State, ZIP:	Merrimack, NH 03054
850-712-3411	(603)669-1799 Sjhickey1@gmail.com

C. Legal Contact (Officer legally authorized to sign agreements)

Legal Contact's name:	Sharon Hickey	
Title:	Association President	
Affiliation:		
Street address:		
City, state, ZIP	Merrimack, NH 03054	
Day phone: (850)712-3411	(603)669-7199	Email: sjhickey1@gmail.com

Signature of Legal Contact: _____ **Date:** _____

3. Project Summary

In **200 words or less**, provide a general description of the proposed project which would be suitable for a press release. This section should summarize the water quality concerns, stakeholder involvement and how the project will help achieve the desired environmental outcome(s).

This project represents the fourth phase of implementation of the Baboosic Lake Watershed Management Plan. The Four Seasons community beach area serves 89 homes that make up the Four Seasons Property Owners Association.

Severe beach erosion extends approximately 50 feet across the beach and into the lake. This project proposes construction of a perched beach, by erecting a sand retention system/retaining wall, approximately 6-10 feet from the water's edge. The severe erosion is documented in the attached photos. Once the wall is constructed, the area would be filled with beach sand creating a level area, thereby reducing erosion, reducing phosphorous into the lake, and promoting storm water to infiltrate into the ground versus running off into the lake. This project goes above and beyond the completed work referenced in the implementation plan.

Additionally, a reduction of the grade of the existing boat ramp, modification of the existing berm, and installation of an infiltration trench with runoff diversion and rain garden will further reduce storm water runoff.

Attached are multiple letters from stakeholders which document the level of support that the association has in this project to improve the water quality of Baboosic Lake and to support a healthy lake environment.

4. Project Location

A. City/Town(s): **Merrimack**
County: **Hillsborough**
Does project involve other states? **Yes** ☐ **No** ☒

B. What water body does it affect? **Baboosic Lake**
12-digit hydrologic unit code (HUC): 010700060905

HUC look-up: http://www2.des.nh.gov/SWQA/ or contact your NHDES project leader for assistance.

C. Attach a project location map in PDF format showing the watershed and relevant project site locations (required).

5. Problem/Need

Provide a clear statement of the types of nonpoint sources (NPS) and water quality impairments or threats to water quality that would be addressed by the project.

According to the 2012 Surface Water Quality Assessment completed by NHDES, runoff from developed lands (e.g., cities, residential neighborhoods, and other developed areas) contributes to approximately 93% of the water pollution problems in New Hampshire. These pollutants are carried by stormwater and are a major concern for water quality.

The Baboosic Lake Watershed includes 1,909 acres with various types of land cover. The Four Seasons Association beach and the majority of the member's residential properties are located in the

Merrimack subwatershed. According to the original Baboosic Lake Watershed Plan published in 2008, Merrimack is the most developed subwatershed and is located on the eastern side of Baboosic Lake. Despite being the most heavily developed, land cover in the Merrimack subwatershed is still dominated by wetlands (54%), cultivated land/grassland (37%), and forest (10%). This subwatershed has the highest predicted phosphorus loading 0.28 kg of phosphorous/hectare/year, which represents approximately 37% of the Lake's total predicted phosphorus loading.

Major potential sources of Nonpoint Sources (NPS) pollution in the Baboosic Lake Watershed include:

- Sediment
- Oil, grease and toxic chemicals from motor vehicles
- Pesticides and nutrients from lawns and gardens
- Viruses, bacteria and nutrients from pet waste and failing septic systems
- Road salts and sand
- Heavy metals from roof shingles, motor vehicles and other sources
- Thermal pollution from impervious surfaces such as streets and rooftops

Currently runoff from the catchment area runs downslope from the property running over the beach, causing severe erosion.

Over the past three decades, The Four Seasons Property Owner's Association has conducted multiple projects to reduce sediment and phosphorous load to the lake and to slow the erosion on the Four Seasons beach property to improve water quality. Examples of completed work are as follows: grading the parking area and replenish crushed stone, installed two consecutive level terraces in the lawn area using masonry retaining walls. In a collaborated effort with the BLA, installed a berm running the width of the upper lawn area redirecting storm water runoff into the woods south of the beach and lastly, installed a ditch and filled with crushed stone which is immediately uphill of the beach. Problems with beach erosion and sediment loading to the lake persist and the best possible solution appears to be construction of a perched beach to stop the erosion.

Proposed measures to address Nonpoint Sources, water quality impairments, and threats to water quality:

Beach Area

- Upgrade/modify infiltration trench
- Repair eroded areas
- Install perched beach wall
- Replenish beach sand

Grassed area and Boat Ramp Access

- Modify grassed berm and install infiltration trench
- Install runoff diversion and rain garden
- Reduce boat ramp grade and add runoff reduction measures.

These proposed Best Management Practices (BMP) seek to continue the improvements in phosphorous load reduction achieved by the Baboosic Lake Association since publishing the original Baboosic Lake Watershed Plan in 2008. The water quality data indicates a decrease in phosphorus over the last five years; however, according to NH-DES lake remains impaired for the following:

Lake Assessment Unit: Aquatic Life Use due to pH, and primary Contact Recreation due to Cyanobacteria.

Town Beach Assessment Unit: Primary Contact Recreation due to Cyanobacteria, Escherichia Coli, Excess Algal Growth, and Secondary Contact Recreation due to Escherichia Coli.

Camp Young Judea Beach Assessment Unit: Primary Contact Recreation due to Cyanobacteria.

Indicate the watershed priority categorization as referenced in the NHDES Nonpoint Source Management Plan: http://des.nh.gov/organization/divisions/water/wmb/was/documents/app.pdf (search by town or water body name)

☒ *High priority for restoration or protection*

☐ *Medium priority for restoration or protection*

☐ *Low priority for restoration or protection*

6. Desired Environmental Outcome

Provide a concise statement of the expected environmental outcome(s) that this project strives to achieve. For multi-phase projects, if the environmental outcome is not expected to be achieved during this phase, explain how the project will make progress toward the outcome. Goal-setting and results-planning can help water resource managers develop more deliberate project designs and achieve optimal project outcomes, e.g., watershed phosphorus loading will be reduced by 28 lbs/yr resulting in lake phosphorus levels below 7.2 µg/l; the impaired river segment is now in a state of equilibrium based on stream morphology principles; or, ambient fecal coliform bacteria levels will be reduced to enable reopening of a closed shellfish harvest area (18 acres).

The estimated pounds of phosphorus reduction needed to achieve the lake water quality goal is approximately 64 pounds based on the original projections from the 2008 plan and estimated by CEI in 2011. To date, we estimate that 51 pounds per year of loading has been eliminated, so the estimated remaining phosphorous load reduction needed is 13 pounds per year. The efforts proposed by the Four Seasons Association seek to address the current impairments due to cyanobacteria highlighted in the Baboosic Lake Watershed Plan and subsequent plan update by further reducing phosphorous loading.

Baboosic Lake is listed as impaired on New Hampshire's 2016 list of Impaired Waterbodies for primary contact recreation (i.e. swimming) due to Cyanobacteria (hepatoxic blue-green algae) blooms. The Cyanobacteria bloom impairments are based on data collected in accordance with the NH DES approved quality control standards. The data is available in the NH DES Environmental Monitoring Database, (EMD). In the 2016 assessments, NH DES removed the 303d List impairment to primary contact recreation due to chlorophyll-a. For 2012, the lake's assessment unit is considered fully supporting the chlorophyll-a criteria for all designated uses. It should be noted that the lake assessment unit is still considered impaired for cyanobacteria and pH. The 2016 list of Impaired Waterbodies also documents impairments to primary and secondary contact recreation uses due to cyanobacteria, Escherichia coli, and excess algal growth, at the two designated swim beach assessment units.

The Four Seasons Association seeks to implement sustainable stormwater diversion and infiltration BMPs and take ownership of stormwater mitigation in our neighborhood. The project will contribute to the successes of the BLA and the Low Impact Development (LID) strategies implemented in the Baboosic Lake Watershed through the "Soak Up the Rain" (SOAK) program to achieve a portion of the remaining 13 pounds per year phosphorus load reduction recommended for Baboosic Lake. The estimated load reductions to be achieved from this project are not currently known because the proposed projects are larger in scope than was anticipated in the watershed plan. This site was originally identified in the plan as being two parts (Four Seasons A & B). The smaller projects in the plan have already been implemented and their estimated load reductions are included in the calculation of watershed loading achieved to date. Formal load reductions for this project would be calculated by the engineer to be selected as part of the project.

The photos provided with this application were taken on July 18, 2018 after a few days of severe rain. The photos demonstrate the gullies which form on the beach area after a heavy rain event. The largest gully was approximately 30 feet long, (from the top of the beach running approximately 30 feet to the water), by 2.5 feet wide at the top of the beach, (narrowing as the stormwater approached the lake water), and approximately 6-8 inches deep. This example refers to the largest gully. 5 smaller gullies also formed running the same distance from the top of the beach to the lake, varying in width from 4 inches to 8 inches and 3-5 inches deep. Also, please note the wash out that occurred under the stairs which lead from the grassy area to the top of the beach. The photo displays evidence that the earth under the stairs has been degraded and washed away. There is a space of approximately 8 inches where the footing of the stairs has been undermined by stormwater. Lastly, the area at the foot of the boat ramp also displays areas below the footing and to the right of the footing have been marked by gullies forming during the same storm.

This phase advances the watershed the goals of the watershed plan by reducing sediment & phosphorous load on Baboosic Lake.

Self- Insert PICS

7. Watershed Based Plan

Check one:

☒ Project **implements** actions from an existing "a through i" watershed based plan.

☐ Project implements **an alternative** to a watershed plan which has been discussed with NHDES prior to this application.

Describe how the project will implement a watershed based plan. The project should address measures intended to maintain or meet a quantifiable water quality goal. See Watershed-based Plans http://des.nh.gov/organization/divisions/water/wmb/was/watershed_based_plans.htm for completed examples, and see Info Packet, Attachment A for more information about the elements (a through i) of a watershed-based plan.

This project implements actions as identified in the completed Baboosic Lake Watershed Management Plan through the construction of corrective actions at the problem sites identified in the Plan. The project proposes

to continue the Baboosic Lake Watershed stakeholders efforts to work through each of the identified recommendations and eliminate those pollutant sources. Water quality monitoring results are showing significant improvement and Four Seasons wishes to implement corrections at this site to further contribute to those improvements.

Note: Proposals for **projects dealing with geomorphology-based restoration or hydromodification (culvert replacement, dam removals, etc.)** are not required to address pollutant loading, but must demonstrate that the assessment unit is impaired or threatened according to the criteria as detailed in the Consolidated Assessment and Listing Methodology (CALM); please contact us prior to submitting this application.

If you have a completed watershed based plan, please provide an updated copy of your Watershed Plan Implementation Tracking Form in addition to completing this section of the application (contact Katie Zink at Katherine.Zink@des.nh.gov with questions, or if you need our file copy of your form

Self...Insert Watershed tracking form.

8. Phasing Considerations

NHDES recognizes that years of sustained NPS implementation may be needed to achieve measurable improvement to a waterbody. If additional phases of the project beyond the scope and time period of this project are anticipated, briefly describe the anticipated future phases needed to achieve the desired environmental outcome(s) described in Section 6. Cases in which phasing may be warranted include projects to restore impaired waters, and projects in relatively larger watersheds.

This renovation to the Four Seasons beach area is the fourth implementation phase of the Baboosic Watershed Plan. *It follows on the previous watershed work which included installation of community septic system and implementation of several small and large scale BMPs to control storm water runoff throughout the watershed. There are likely other watershed BMPs needed in the future to fully implement the plan.*

Over the past 3 decades, the Four Seasons Property Owners association has conducted multiple projects in an effort to reduce sediment and phosphorous load to the lake as discussed in section 5.

9. Stakeholder Coordination, Roles, and Responsibilities

Describe participation and commitments expected from stakeholders, land owners, other agencies, organizations and municipalities and identify proposed sources of matching funds. Grantees should be aware that EPA 319 Section Grant funds require a 40% match in non-federal funds. Match can be in the form of cash or in-kind contributions (time, labor, easements, materials, equipment, etc.) from your organization or project partners. If available at this time, provide letters of commitment from project partners, BMP construction location property owners, and/or match providers. Please note that letters of *commitment* rank higher than letters of *support* when competing for grant funding. Securing a commitment from a willing land owner to install a BMP on their property, scores higher in a ranking scheme when compared to an individual or group simply supporting the project in writing without a commitment of time, materials, equipment, and/or funding.

The previously implemented stormwater and erosion improvement measures completed by Four Seasons demonstrate our desire to improve the water quality of Baboosic Lake. Through this project we propose to continue our stewardship of this resource. Four Seasons will serve as the Grant recipient and project manager for this project. We intend to issue a Request for Qualifications (RFQ) to select and hire a professional

consultant/engineer to design the BMPs, complete permitting, and provide construction oversight. The consultant will also assist us in issuing a bid to complete the construction work.

Four Seasons Property Owner's Association has been working in coordination with the Baboosic Lake Association, Four Seasons members, and property owners to ensure that the involved parties are all prepared to work together on this project. Please see the attached letters of support.

Match contributions will be in the form of a combination of cash and in-kind services and will be provided by the Four Seasons Property Owner's Association. Funds immediately available total 13,000. Future annual dues will be allocated to this project and are estimated to be 17,500 by the end of 2019. Additionally, our association will conduct our annual meeting on October 24, 2018, where the Board of Directors will seek approval to increase the annual dues, which, if approved by members, will result in an additional 27,000 available for this project by the end of 2019. Furthermore, our members intend to provide in-kind services as needed by providing both heavy equipment and labor.

Letters of commitment versus letters of support

10. Estimated Grant Request

Provide a rough estimate of your anticipated funding request, ***excluding match.***

- ☐ Less than $25,000 grant funds.
- ☐ Between $25,000 and $50,000 grant funds.
- ☒ Between $50,000 and $75,000 grant funds.
- ☐ Between $75,000 and $100,000 grant funds.
- ☐ Greater than $100,000 grant funds.

11. Submittal Requirements

Submit the Watershed Assistance Grants Pre-Proposal Application Form and all attachments, via email in Microsoft Word or PDF file formats to **Katherine.Zink@des.nh.gov** **prior to 4 PM on September 21, 2018.**

If you have difficulty emailing attachments, such as maps and photos, please contact Katie Zink at (603) 271-8475 or Katherine.Zink@des.nh.gov to make alternate arrangements.

Your pre-proposal package should include:

- ☐ The completed pre-proposal application form.
- ☐ A project map (see section 4C).
- ☐ Watershed Plan Implementation Tracking Form (as applicable, see Section 7).
- ☐ Commitment letters from landowners (as applicable, see Section 9).
- ☐ Optional: project site photos; water quality data, letters of support; any other items that you would like us to consider regarding this pre-proposal.

(603) 271-8475 watershed@des.nh.gov
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