Memo

From: Jessica Demar
To: Rick McGuire
Date: September 12, 2013
RE: Town-Wide Watershed Improvement Plan Status Report

This memo is to update the Selectboard on the status of the Town-Wide Watershed Improvement Plan (TWIP). The core concept of the TWIP is to provide a strategic approach for the Town to meet the various stormwater regulatory requirements while also addressing other pressing water resource concerns throughout the Town in an efficient and targeted manner. The town is currently in Phase 2 of a 3-phase approach.

Phase 1 (complete)

In October 2010, the town received a grant for $49,000 from the Vermont Department of Environmental Conservation's Ecosystem Restoration Program (ERP) to complete Phase 1 of the Stormwater Master Plan, which was renamed the Town-Wide Watershed Improvement Plan to avoid any confusion with the town's already existing Stormwater Management Program. Phase 1 included a review of existing water resource plans and data, identification of stormwater problem areas, and collection of field data needed to prepare conceptual solutions for problem areas. In total, 76 problem areas were identified. These problems include land and channel erosion, areas in need of stormwater controls, and dilapidated stormwater infrastructure. Phase 1 was completed in February 2013.

Phase 2 (current)

In September 2012, the town received another ERP grant for $75,000 to complete Phase 2 of the TWIP. Phase 2 entailed completing an engineer's analysis of each problem area in order to develop a prioritized plan to address the identified problems, and design and implement a solution to address one of the identified problem areas. As part of Phase 2, the TWIP report was completed and can be viewed via the following links:

> Low resolution for viewing online (10 MB):
> https://dl.dropboxusercontent.com/u/748187/Williston%20Town-wide%20SWMP%20Phase%202_091013_low-res.pdf
>
> High resolution for printing (66 MB):
> https://dl.dropboxusercontent.com/u/748187/Williston%20Town-wide%20SWMP%20Phase%202_091013_print-res.pdf

The TWIP report includes everything there is to know about Williston's watersheds including the Allen Brook, Muddy Brook, Sucker Brook, Lake Iroquois, and the Winooski River. The report includes

Problem Area Data Sheets for each of the 76 problem areas; a prioritization matrix (see below), which helped to identify the top 30 highest priority problem areas; and conceptual solutions for those 30 problem areas. Phase 2 is currently underway.

<u>Phase 3 (future)</u>

In August 2013, the town received a third ERP grant for $55,750 to utilize the TWIP report and prioritization matrix to implement a second solution to one of the top 30 problem areas. Work on Phase 3 is expected to begin in spring 2014.

<u>Project Status</u>

Staff is currently in the midst of Phase 2. While the TWIP report is complete, staff is in the process of using the prioritization matrix to figure out which problem area to fix first. Ideally, it would make sense to fix the most offensive problem area first, however, the cost of the solution, the ability to phase the project, who owns the property, and if the problem area is subject to a state stormwater permit are all contributing factors, which make project selection somewhat tricky.

There are generally 5 categories of ownership that appear on the matrix:

1. Private property with a stormwater permit
2. Private property without a stormwater permit
3. State/Federal property
4. Public property (town-owned land)
5. Hybrids (part public land, part private land)

It is assumed that (unless the Flow Restoration Plan advises otherwise) the town will not take responsibility for Category 1 projects, since the private landowners are required by the state to maintain their stormwater infrastructure per their state stormwater permit requirements (see Section 11.1.4 of the 2011 Town Plan). It is also assumed that Category 3 projects will be left to the state/federal governments. This leaves Category 2, 4, and 5 projects eligible to receive the town's ERP grant funds.

From an environmental standpoint, ownership should not matter since the town's goal is to protect our waterways and move towards maintaining and attaining water quality standards. However, from a political standpoint, fixing problems on private property may present other issues, especially if the private landowner does not contribute to the solution in some way.

Staff is in the process of weighing the ownership factor along with factors related to cost, shovel-readiness, and environmental impact to reach a conclusion on which problem areas to fix first with the available ERP funding.

Town-Wide Watershed Improvement Plan Prioritization Matrix

Site ID	Site Name	Recommended Practice(s)	*Environmental Priority (scale 1-12)*	*Constructability (scale 1-6)*	*Ease of Operation (scale 1-2)*	*Anticipated Pollutant Abatement (scale 1-3)*	Implementation Rank	*Cost	Ability to Phase Implementation?
LI-04	Martel Ln	bioswale w/ check dams	12	4	1	2	19	M	Y
MB-11 MB-14	Harvest Ln	bank stabilization culvert replacement	11	4	2	2	19	H	Y
WR-01	Shirley Circle	bioswale bioretention	12	3	1	2	18	M	Y
LI-03	Beebe Ln	culvert replacement	11	3	2	2	18	H	N
AB-50	South Rd	reinforced animal trail	10	4	2	2	18	L	N
WR-10	Route 2A (near Essex town line)	flow redirection (to existing swale)	10	4	2	2	18	L	N
WR-04	Chapman Ln	road grading/crowing bioswale	10	5	1	2	18	M	Y
AB-11	Pamela Ct	bioretention headcut stabilization	9	5	1	3	18	M	Y
LI-01	Oak Hill Rd	culvert replacement stone lining ditch	11	2	2	2	17	H	Y
MB-28	Williston Rd (near Miller Ln)	bioretention headcut stabilization	10	3	1	3	17	H	Y
AB-09	Horseshoe Dr	bioretention	9	4	1	3	17	M	Y
MB-08	South Brownell Rd	bank stabilization (tree planting)	8	6	2	1	17	L	Y
AB-43	Central School Dr	culvert replacement stone lining ditch	8	5	1	3	17	M	Y
AB-19 AB-20	Talcott Rd	bank stabilization culvert replacement	9	3	2	2	16	H	N
AB-44	Old Stage Rd	culvert replacement	9	3	2	1	15	H	N
SB-12	Lincoln Rd	bioswale w/ check dams	8	4	1	2	15	M	Y
WR-05	Fontaine Ln	bioswale w/ and w/out check dams	8	4	1	2	15	M	Y
MB-06	Marshall Ave (at Shunpike Rd)	culvert replacement headcut stabilization	8	3	2	2	15	H	Y
AB-05	Palmer Ct	bioretention	8	5	1	1	15	M	N
MB-20	Kirby Ln	improved conveyance	8	4	2	1	15	M	N
MB-23	Lamplite Ln	bioretention	8	5	1	1	15	H	Y
MB-26	Walker Hill Rd	headcut stabilization	9	3	1	1	14	M	N
SB-01	Route 2A (at Ridge Rd)	culvert reset/replace bank stabilization	8	2	2	2	14	H	Y
MB-02	SD Ireland haul road	culvert replacement	8	2	2	2	14	M	N
AB-14	O'Brien Ct	bioretention	7	4	1	2	14	M	Y
WR-06	Gov Chittenden Rd	road grading/crowning bioswale	7	4	1	2	14	M	Y
AB-40	Route 2 (Armory)	bioretention	7	4	1	2	14	M	Y
WR-08	Sunrise Circle	bioretention	7	5	1	1	14	M	Y
AB-52	East Hill Rd	stormwater system stone lining ditch	6	5	2	1	14	M	Y
MB-09	Route 116	bridge replacement	7	2	2	1	12	H	N

* Cost: L= <$20,000, M= $20,000 - $100,000, H= >$100,000