Torsey Pond Watershed Survey

June 2017

Prepared by: Cobbossee Watershed District, with
Torsey Pond Association

Acknowledgments

The Torsey Pond Watershed Survey Project was made possible by the cooperative efforts of several individuals and organizations. The following organizations and individuals participated in the development of this survey:

- **Cobbossee Watershed District (CWD)**
- **Torsey Pond Association (TPA)**

Specifically,

- The **watershed survey field work** was performed by volunteer members of the Torsey Pond Association. Project participants included Keith Coulling, Mark Dershwitz, Andrea Falaguerra, Joe Field, Sandra Gorry, David Gross, Alan Howie, Linda Lally, Shawn Painter, Mike Pastore, David Roberts, Harold Roberts, Darcy Whittemore, Fran Zambella, Ellen Zimkin, and Andy Zuorski
- All **mapping** was produced by Ryan Burton of the CWD.
- **Steering Committee** members included Keith Coulling, Darcy Whittemore, Dave Roberts, Sandra Gorry, and Bill Monagle (CWD).
- **Funding** for this project, in part, was provided by the Torsey Pond Association.
- The **Watershed Survey Report** was prepared by CWD Project Manager, Bill Monagle.

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Cover Photo: Rainbow over Torsey Pond. Photo by Ryan Burton.

INTRODUCTION

General Watershed and Lake Water Quality Information:

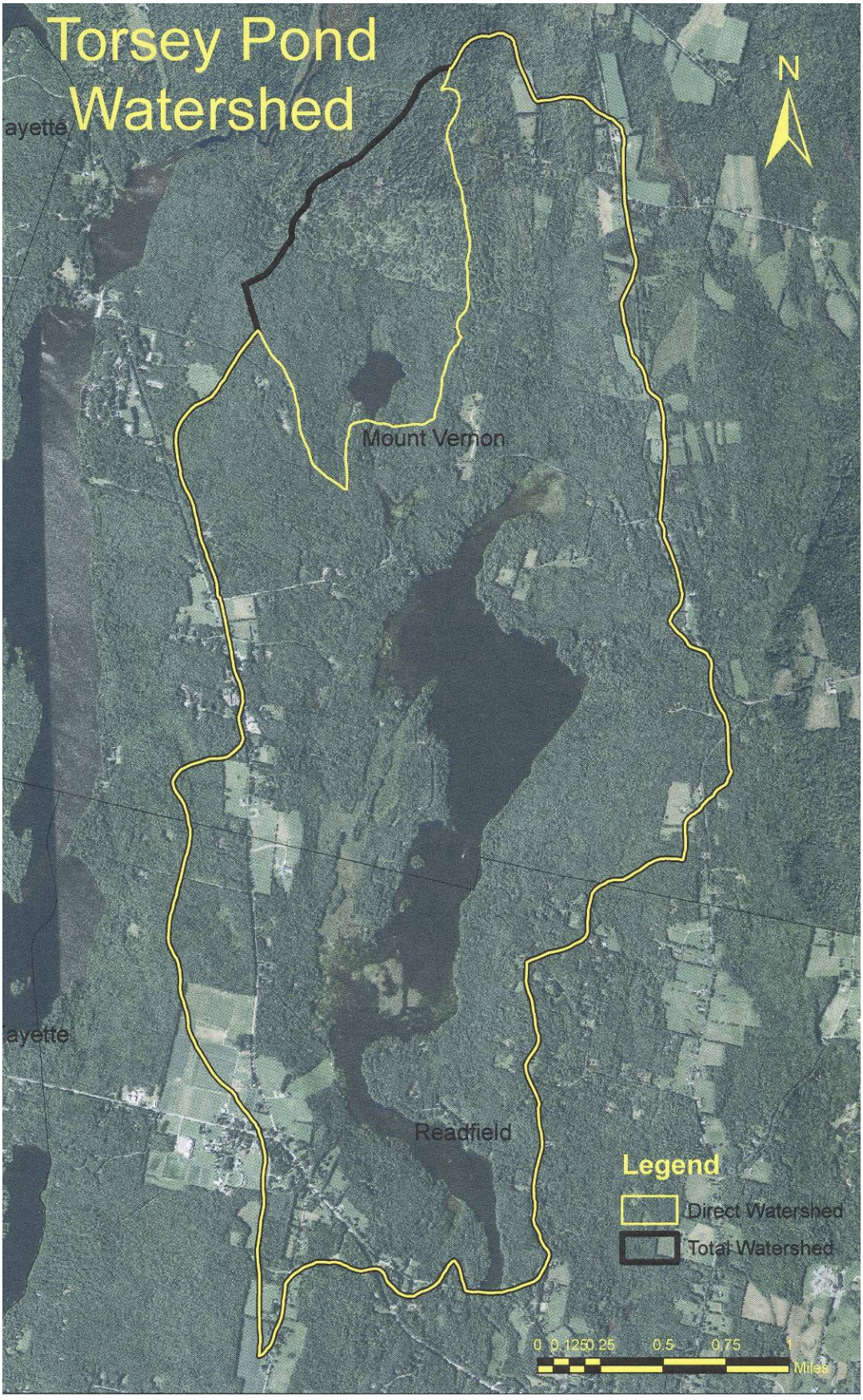
Torsey Pond is a 568 acre lake, within a 5.1 sq. mi. watershed, located 12 miles west northwest of Augusta in the Towns of Readfield and Mt. Vernon, Kennebec County, Maine, and easily accessible from Routes 17 and 41 (Figure 1). Torsey Pond is a headwater lake of the Cobbosseecontee (Cobbossee) Stream watershed and outflows to Maranacook Lake, downstream. Torsey Pond has a maximum depth of 45 feet, a mean depth of 10 feet, and flushes 1.1 times per year. Hydrologically, the major source to the lake is the discharge from Desert Pond which is a small (22 acre) pond just north of Torsey Pond. The major land use in the Torsey Pond watershed is forest. The primary cultural land uses in the watershed are agriculture and residential, and these represent the most significant sources of phosphorus. There is moderate shoreland development around the pond, and access to the shoreline is gained by about a dozen private roads, all of these consisting of graveled surfaces.

> ***Watershed*** *– All of the land directly surrounding a lake and which serves as a source of water through tributaries, ditches, direct overland flow, or via groundwater.*

The Cobbossee Watershed District (CWD) has been monitoring Torsey Pond water quality since the early 80's, and during this period, the water quality has been relatively stable with above average water clarity compared to other Maine lakes. In fact, trend analysis suggests a slight and gradual improvement over time with the mean visibility for the years 1981- 2016 hovering around 6.0 meters. The average clarity was 6.5 meters in 2016, which was a very dry year with reduced stormwater runoff from the surrounding watershed. The most recent (2014) state average for Maine lakes was 4.8 meters. Algal blooms have never been observed in this lake; minimum visibility on record since 1975 was 3.5 meters in 1990. Phosphorus concentrations have been generally between 7 and 11 parts-per-billion (ppb) and have not changed much since CWD's first measurements in 1976. A phosphorus concentration of 15 ppb or higher is generally considered the level above which algal blooms occur. Chlorophyll-a, a photosynthetic pigment present in plants, including algae, is a good indicator of algae concentration and over the years the levels measured in Torsey have been consistent with moderate productivity and good water clarity. Oxygen depletion in the pond does occur during summer periods at depths from 7 or 8 meters to the bottom and usually persists until the fall overturn.

> ***Phosphorus*** *– An essential plant nutrient that is considered most responsible for the proliferation of algae and aquatic plant growth in lakes.*

Figure 1. Direct Watershed of Torsey Pond



PREVIOUS SURVEY EFFORTS

The most recent assessment of Torsey Pond's watershed was conducted in 1997 by the Torsey Pond Association in Cooperation with the CWD and the Readfield Code Enforcement Office. The survey effort focused on camp road and public road related sources of erosion and sedimentation. There were three roads that were assigned a High Priority ranking; these were Desert Pond Road, Old Stage Road, and Beans Mills Rd. (formerly MV-1). A Medium Ranking was assigned to problems identified on Torsey Shores Road.

PURPOSE OF THIS WATERSHED SURVEY

This Torsey Pond Watershed Survey Project was undertaken to identify and document specific Nonpoint Source Pollution (NPS) problem sites where Best Management Practices (BMPs) should be implemented to reduce sediment and/or phosphorus loading to the pond as well as identifying those roads, or segments thereof, where responsible road maintenance appears to be lacking. The survey identified and prioritized NPS problem sites for future BMP implementation based on their severity and their suitability for corrective measures. The survey process and results also served to prepare citizens, road associations, and municipalities for understanding and accepting their own active roles in regularly maintaining their own roads and protecting the lake, and provides a foundation for the development of a long-range watershed-based protective plan to guide implementation efforts in the watershed.

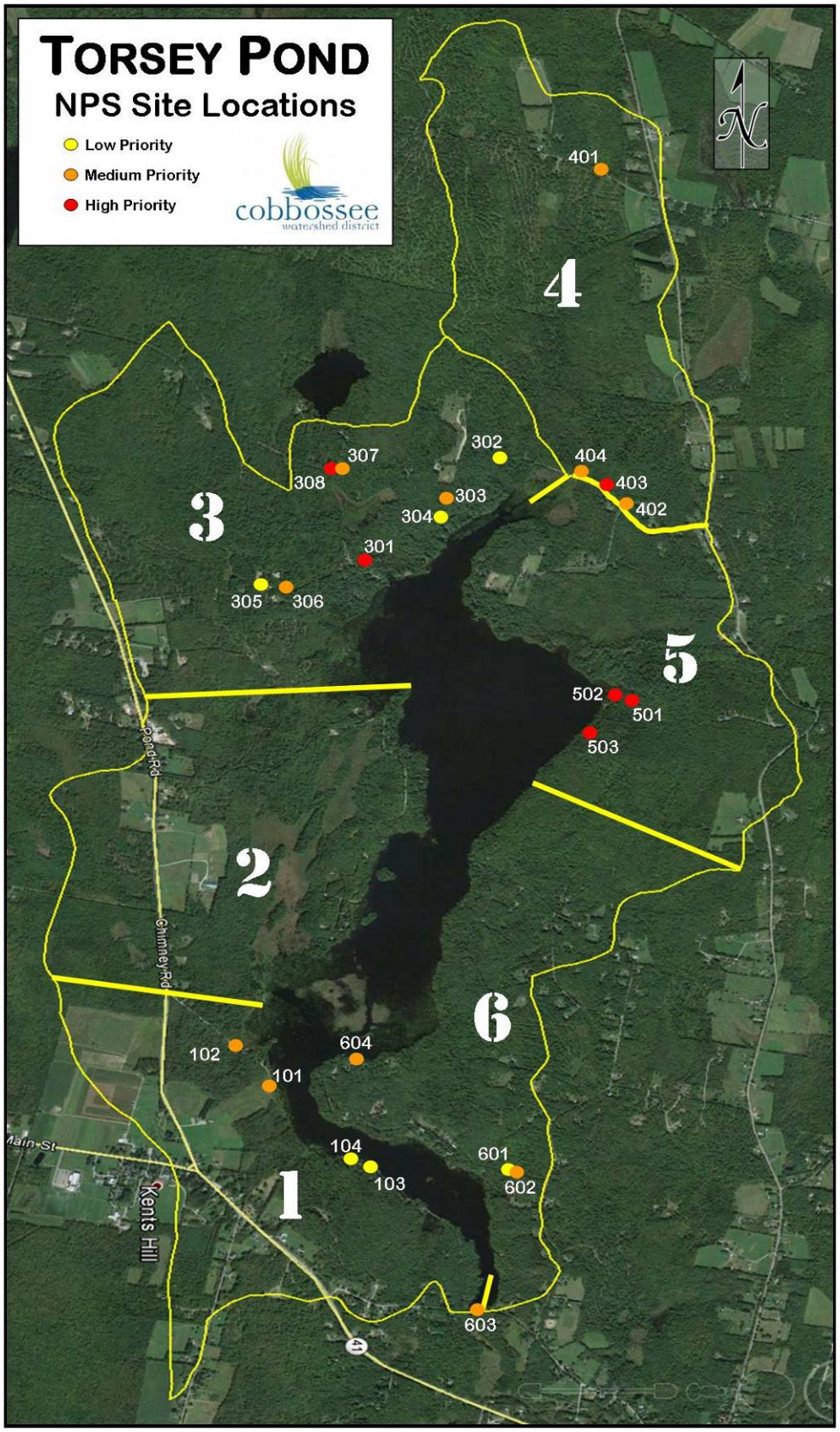
NPS SURVEY METHODS:

The survey was conducted by members of the Torsey Pond Association under the guidance of the CWD and generally followed the "Maine DEP Lake and Stream Watershed Survey QAPP" (2009) and the guidance in the "Citizen's Guide to Volunteer Lake Watershed Surveys" (2011). In general, this survey was conducted more as "road survey" as it was primarily limited to surveying NPS problem sites visible from private camp roads and the public roadways from which the camp roads originate. Access to private property was to be limited to that permitted by the respective property owners. Prior to conducting the survey, notices of the survey were posted in the Readfield Town Office and there were two mailings made to approximately 250 watershed residents in the Towns of Readfield and Mt. Vernon, and an article was published in the local Community Advertiser in April 2016.

The effort began with a training session held August of 2015. Training was conducted by CWD Project Manager Bill Monagle. The training session included a classroom session at the Readfield Town Office followed by a field session conducted on a local camp road and abutting properties. A similar set of training sessions were conducted in early May of 2016 and the survey began immediately following that session. The watershed was divided into 6 sectors (See Figure 2), and surveyors were assigned a specific sector, or sectors. Surveyors were supplied with survey forms, sector maps, and a letter for property owners that inquire about the survey, as well as other materials necessary to complete the survey. Each NPS site was assigned an NPS site number, located on the respective sector

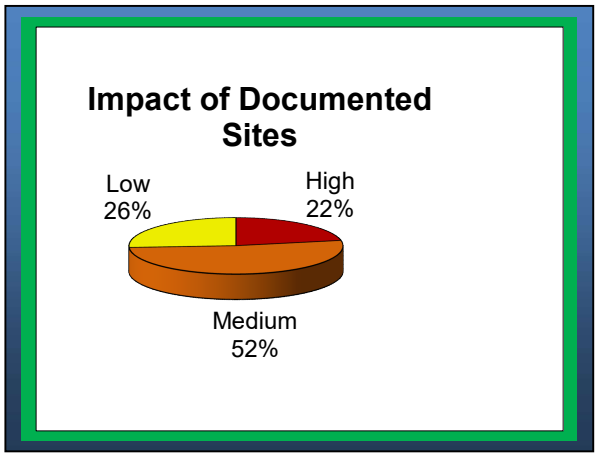
map, and the GPS location recorded in lat/long (decimal degrees). See Appendix A for an example of an NPS survey field sheet used in this survey and the informational letter to property owners. Mr. Monagle conducted follow-up field work to check any sites recorded by the volunteer surveyors.

FIGURE 2. Map of Watershed Survey Sectors and Mapped Results



SUMMARY OF SURVEY RESULTS

In general, there were 11 subcategories of NPS sites described, and in several cases, a particular site satisfied more than one category. Of the 23 sites, 22 percent were considered to be High Priority, 52 percent as Medium Priority, and 26 percent as Low Priority. Priority ranking was based on a combination of factors including the extent of erosion and the proximity to a water resource or drainage channel, in most cases with the intent being to rank the sites based on the degree of threat to lake water quality. A breakdown of NPS sites by type is shown in the table below. As the data suggest, and as expected given the survey design, the majority of NPS sites that were identified were related to either private or public roads. This is also reflected in the range of problem descriptions, as 90% of all identified NPS problems were related to either road surface erosion, clogged or eroded culverts, ditch erosion, or shoulder erosion. Land classified as agriculture failed to account for any of the NPS-related problems – as expected considering there is little agriculture in the watershed and properties related to livestock keeping generally denied access or a willingness to be surveyed. The results were not unexpected, as the NPS survey was to be conducted from edge of properties along public and private roadways, with property owner permission required for a more in-depth inspection.



Impact was based on size, slope, amount of erosion, and proximity water.

- **"Low"** impact sites are those with limited soil transport off-site
- **"Medium"** impact sites are generally those with visible signs of off-site sediment transport to water.
- **"High"** impact sites are larger sites where there is apparent sediment transport to the lake with little to no evidence of buffer treatment.

Occurrence of Identified NPS Sites by Type

LAND USE TYPE	Number of NPS Sites
Private Road Surface Erosion	9
Public Road Surface Erosion	9
Private Driveway Surface Erosion	1
Private Boat Launch Erosion	2
Ditch Erosion	16
Shoulder Erosion	9
Culvert (undersized, clogged, or broken)	4
Public Boat Launch Erosion	1
Grader Berms	5
General Site Erosion – Gulley / Ravine	1
Shoreline Erosion	2

In general, to most efficiently address NPS problems as identified in this survey, it is recommended that the highest priority sites be tackled first. Of the 6 high priority sites, 5 were related to roads. The Appendices include Maps of the 6 individual sectors and the associated NPS sites (Appendix B) and a Site-Tracker Spreadsheet presenting the complete NPS survey results (Appendix C). Site-specific BMPs to address these problems should be prescribed prior to work being performed as conditions may have changed since the survey was performed. The most common BMPs to address the 16 road related sites will be re-grading and stabilization of roadside shoulders, adding surface material to eroded roads and reshaping them as required, replacing new culverts where needed and stabilizing culvert inlets and outlets, and reshaping and stabilizing roadside ditches and installing turnouts to buffer areas where deemed beneficial. Costs in dollars (2014) to repair the average camp road related problems generally will likely run between $4,000 and $10,000 per site. Camp roads with multiple problems can be expected to be proportionately more expensive. Current CWD staff experience with improving common camp road NPS sites suggests that an average camp road repair project runs approximately $6,000.

EXAMPLES OF IMPACTED SITES

Following is a general discussion of several examples of NPS sites documented during the survey. Discussion of NPS sites here will be limited primarily to sites rated as either Medium or High Priority.

NPS Site #102 (Medium Priority) – Road Surface, Ditch, and Shoulder Erosion

NPS Site #102 - This site is on Beans Mills Road approximately 750 feet from the junction with Rte. 41. This section of road is characterized by moderate erosion to the road surface, shoulder, and adjacent ditch. As a result of the shoulder erosion and the existence of shoulder berms along the road edge, runoff is unable to leave the road and shoulder and enter the ditch. The runoff, in fact, continues past an existing culvert causing further erosion.

This photo is looking down Beans Mills Road to where a culvert passes beneath the road. Because the road lacks a proper crown and there are berms built up that prevent runoff from shedding off the road surface into the ditch and then the culvert causing surface erosion.

This is a reverse angle of the photo above showing signs of erosion and surface flow past the undefined ditch and bypassing the culvert and casuing further erosion of the road surface and shoulder.

Recommendation for NPS Site #102 – Ideally, the road shoulder should be graded to remove all vegetation and any accumulated gravel and sediment and the adjacent ditch should be improved. The road surface should be crowned to better shed water to adjacent wooded areas.

NPS Site #310 (High Priority) – Road Surface Erosion/Grader Berms

NPS Site #301 – This site is located at a low point in Five Seasons Road where it crosses a small tributary stream to Torsey Pond. This is a High Priority site in that runoff from the road causes surface erosion and direct deposit of eroded material into a perennial tributary to the pond.

This is a view up the road from the base of the road near a tributary stream to the pond. As can be seen, runoff coming down the road has no opportunity to shed to adjacent wooded areas thereby causing surface erosion and transport of sediment to the tributary below.

Here, runoff from the road surface shown in photo above enters the tributary which flows directly into Torsey Pond downstream.

Recommendation for NPS Site #301 – The road surface should be crowned, shoulder berms removed, and a ditch installed along both sides of the road with periodic turnouts to the adjacent wooded buffers. At a point where the road closely approaches the stream crossing, there should be runoff diversions (e.g., waterbars) installed to deflect runoff to the newly installed ditches.

NPS Site #308 (High Priority) – Road Surface and Ditch Erosion with Grader Berms

NPS Site #308 –This site is located along Desert Pond Road – a town road – in the Town of Mt. Vernon on the opposite side of the road from the pond. The road surface here is severely disturbed and the shoulder severely eroded. This site flows directly into a tributary stream (outlet stream from Desert Pond) and then beneath the road and discharges sediment-laden water to Torsey Pond. There are also signs of severe ditch erosion and grader berms along the road shoulder that prevents runoff from shedding to the ditch or to adjacent wooded areas.

This is a view looking along Desert Pond Road with clear evidence of severe road shoulder erosion and discharge of eroded material into a modestly wooded area with stream channel not in view.

This is a photo showing where the eroded road and shoulder material enters a tributary stream to Torsey Pond

<u>Recommendation for NPS Site #308</u> – The grader berms should be removed and the fill slope between the shoulder and the roadside vegetated ditch should be graded, seeded, and with periodic turnouts to enable filtered road runoff to enter the ditch and/or adjacent wooded areas.

NPS Site #403 (High Priority) – Ditch Erosion/Unstable Culvert In/Out

NPS Site 403 – This site, located on Desert Pond Road in Mt. Vernon represents a series of NPS problems. There is severe bank failure and ditch erosion along a significant portion of the road although there is evidence of efforts to make repairs. Beneath the road is a large corrugated metal culvert with very severe erosion along the outfall channel which flows to the pond.

This is a photo showing a portion of the eroded road bank and shoulder along Desert Pond Road.

This is a photo showing another section of the eroded road bank and shoulder along Desert Pond Road.

Recommendation for NPS Site #403 – The road banks and ditches in this section of Desert Pond Road need to be more strongly armored with rip-rip and the road surface needs to be improved (crowned). The inlet of the large corrugated metal culvert beneath the road should be armored with rip-rap and the outlet channel needs extensive armoring with rip-rap or large rock.

NPS Sites #501 through 503 (High Priority) – Gulley Erosion

NPS Site #501 - #503 – These sites are located in the vicinity of Audrey and Roland Lanes along the northeast portion of the pond. The problems associated with sites 510 and 502, in particular, originate up-gradient of the roads. These sites represent severe gulley erosion with some obvious and direct evidence of sediment entering the pond.

This photo of Site #501 shows severe gulley erosion.

This photo shows a significant sediment and rock deposit from site #502 in the nearshore zone of the pond.

This photo shows significant gulley erosion at site #503 with Torsey Pond in background.

Recommendation – These three sites represent some of the more severe erosion detected in this survey. They will all require engineered solutions before any construction/stabilization should take place. A likely approach will include re-grading the gulleys and stabilizing with a combination of geo-textiles and heavy rip-rap and large rock armor.

FUTURE IMPLEMENTATION

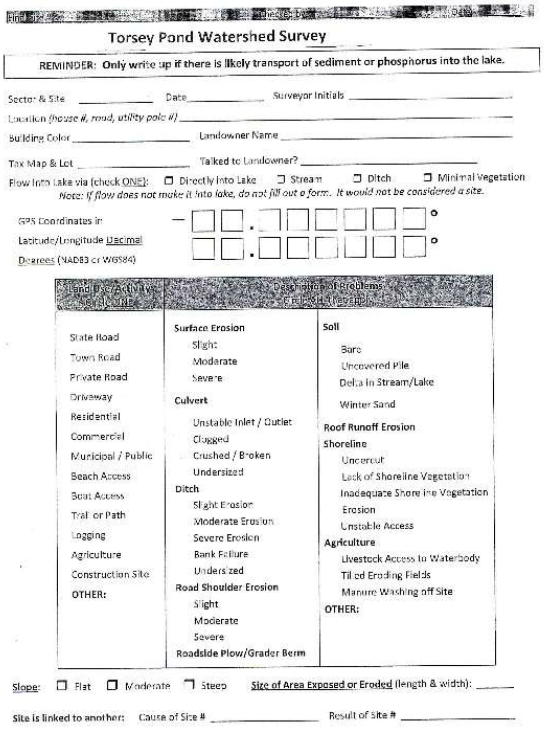
The watershed survey results as summarized in this report provide strong supporting information for the development of a Watershed-based Protective Plan (WBPP) for Torsey Pond and a solid list of candidate sites to target for future corrective action. The strategy to be laid out in the Watershed-based Protective Plan will combine information gathered during this survey effort with water quality data gathered by the CWD as part of their routine lake monitoring program along with CWD's keen knowledge and understanding of the pond's watershed. The plan will be submitted to the Maine DEP and the USEPA Region I office for acceptance and approval.

The next logical step in protecting Torsey Pond water quality following the approval of the WBPP will be the preparation and submission of a proposal to the Maine DEP for 319 grant funding to implement a Watershed Project to address many of the medium and high priority NPS sites identified during this survey as well as other NPS phosphorus sources in the watershed. To promote participation in the Watershed Project, property owners will be offered cost-sharing incentives to assist in protecting lake water quality. Overall, the anticipated Watershed Project will provide a roughly 60-40 cost sharing opportunity for landowners to implement BMPs on their property to help protect Torsey Pond water quality, but the cost-sharing ratio will be established on a case by case, site by site basis, and will depend on the particulars of the site under consideration, including whether the site is publicly or privately owned, whether improvements or maintenance are currently required by deed covenants or if the NPS problem represents a violation, the total cost of BMP implementation, among others.

APPENDIX A

Watershed Survey Field Sheets and Information Letter to Landowners

Watershed Survey Field Sheet



Torsey Pond Watershed Survey

REMINDER: Only write up if there is likely transport of sediment or phosphorus into the lake.

Sector & Site _____ Date _____ Surveyor Initials _____

Location *(house #, road, utility pole #)* _____

Building Color _____ Landowner Name _____

Tax Map & Lot _____ Talked to Landowner? _____

Flow into Lake via (check ONE): ☐ Directly into Lake ☐ Stream ☐ Ditch ☐ Minimal Vegetation

Note: If flow does not make it into lake, do not fill out a form. It would not be considered a site.

GPS Coordinates in:

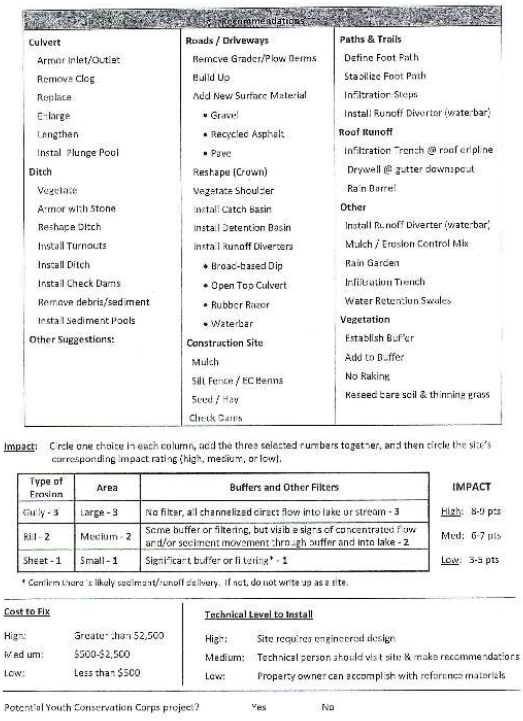
Latitude/Longitude Decimal

Degrees (NAD83 or WGS84)

Road Use Activity (check ONE)	Description of Problems (check all that apply)	
State Road	**Surface Erosion**	**Soil**
Town Road	Slight	Bare
Private Road	Moderate	Uncovered Pile
Driveway	Severe	Delta in Stream/Lake
Residential	**Culvert**	Winter Sand
Commercial	Unstable Inlet / Outlet	**Roof Runoff Erosion**
Municipal / Public	Clogged	**Shoreline**
Beach Access	Crushed / Broken	Undercut
Boat Access	Undersized	Lack of Shoreline Vegetation
Trail or Path	**Ditch**	Inadequate Shoreline Vegetation
Logging	Slight Erosion	Erosion
Agriculture	Moderate Erosion	Unstable Access
Construction Site	Severe Erosion	**Agriculture**
OTHER:	Bank Failure	Livestock Access to Waterbody
	Undersized	Tilled Eroding Fields
	Road Shoulder Erosion	Manure Washing off Site
	Slight	**OTHER:**
	Moderate	
	Severe	
	Roadside Plow/Grader Berm	

Slope: ☐ Flat ☐ Moderate ☐ Steep Size of Area Exposed or Eroded (length & width): _____

Site is linked to another: Cause of Site # _____ Result of Site # _____



Recommendations		
Culvert	**Roads / Driveways**	**Paths & Trails**
Armor Inlet/Outlet	Remove Grader/Plow Berms	Define Foot Path
Remove Clog	Build Up	Stabilize Foot Path
Replace	Add New Surface Material	Infiltration Steps
Enlarge	• Gravel	Install Runoff Diverter (waterbar)
Lengthen	• Recycled Asphalt	**Roof Runoff**
Install Plunge Pool	• Pave	Infiltration Trench @ roof dripline
Ditch	Reshape (Crown)	Drywell @ gutter downspout
Vegetate	Vegetate Shoulder	Rain Barrel
Armor with Stone	Install Catch Basin	**Other**
Reshape Ditch	Install Detention Basin	Install Runoff Diverter (waterbar)
Install Turnouts	Install Runoff Diverters	Mulch / Erosion Control Mix
Install Ditch	• Broad-based Dip	Rain Garden
Install Check Dams	• Open Top Culvert	Infiltration Trench
Remove debris/sediment	• Rubber Razor	Water Retention Swales
Install Sediment Pools	• Waterbar	**Vegetation**
Other Suggestions:	**Construction Site**	Establish Buffer
	Mulch	Add to Buffer
	Silt Fence / EC Berms	No Raking
	Seed / Hay	Reseed bare soil & thinning grass
	Check Dams	

Impact: Circle one choice in each column, add the three selected numbers together, and then circle the site's corresponding impact rating (high, medium, or low).

Type of Erosion	Area	Buffers and Other Filters	IMPACT
Gully - 3	Large - 3	No filter, all channelized direct flow into lake or stream - 3	High: 8-9 pts
Rill - 2	Medium - 2	Some buffer or filtering, but visible signs of concentrated flow and/or sediment movement through buffer and into lake - 2	Med: 6-7 pts
Sheet - 1	Small - 1	Significant buffer or filtering* - 1	Low: 3-5 pts

* Confirm there is likely sediment/runoff delivery. If not, do not write up as a site.

Cost to Fix

High:	Greater than $2,500
Medium:	$500-$2,500
Low:	Less than $500

Technical Level to Install

High:	Site requires engineered design
Medium:	Technical person should visit site & make recommendations
Low:	Property owner can accomplish with reference materials

Potential Youth Conservation Corps project? Yes No

Front **Back**

cobbossee watershed district

Torsey Pond Association

Dear Property Owner,

The Torsey Pond Association (TPA), with assistance from the Cobbossee Watershed District (CWD), is conducting a survey of the Torsey Pond watershed to locate sources of phosphorus and sediment, which can have a negative impact on water quality. **The goals of this survey** are to locate non-point source pollution sources in the watershed. The information generated from this survey will provide the basis for a watershed-based plan to protect our beautiful lake. A watershed is the area of land surrounding a water body, and which drains to the water body through ditches or smaller streams.

Soil erosion is the main focus of the survey because it is a major source of phosphorus – the most serious pollutant to lakes in Maine. Phosphorus and other pollutants reach our lakes through storm water runoff and can come from anywhere in the watershed – not just the shoreline. Sediment is also detrimental to aquatic life habitat.

The reason for doing the survey is that many Maine water bodies have shown evidence of water quality declines in the past few decades, and although Torsey Pond has exhibited moderate improvement over the years, all lakes are susceptible to potential abuse and degradation. In addition to undesirable aesthetic changes to the water and the potential impact to the fishery, shorefront property values are reduced if water clarity suffers.

The intent of the survey is <u>not</u> to impose upon the privacy of individual property owners, **<u>nor</u>** is it to use any information gathered for enforcement purposes. If problem areas are detected on private property and are considered a high priority, then technical assistance, and possibly financial assistance, could be made available to the property owner to correct the problems.

The survey will begin following a training session in spring of 2016. Local residents will be gathering data by car and on foot looking for erosion problems. Please contact any member of the project steering committee by e-mail if you have any questions. Again, participation in this project is strictly voluntary.

Thank you.

Bill Monagle, CLM
CWD Executive Director

Keith Coulling
TPA President

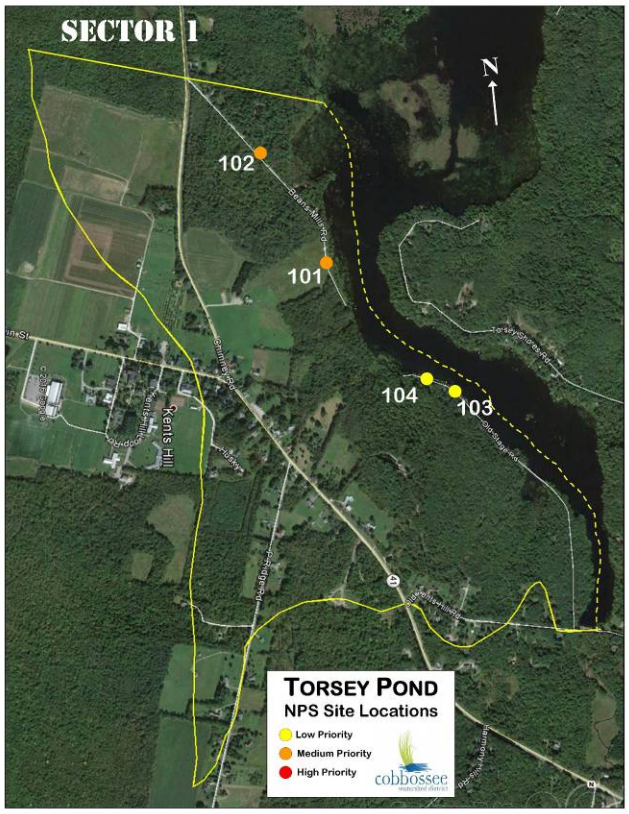
<u>Steering Committee</u>
Keith Coulling (keithc@sacoriver.net); Bill Monagle (wmonagle@roadrunner.com), Darcy Whittemore (hdkswhit@roadrunner.com); Dave Roberts (DavidXCSKIER@gmail.com); Sandra Gorry (eperennial@earthlink.net)

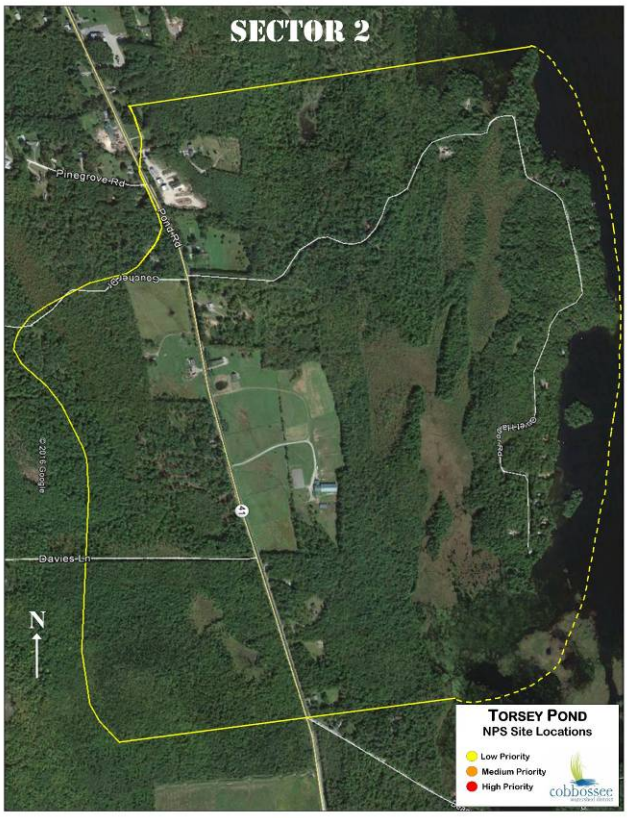
APPENDIX B

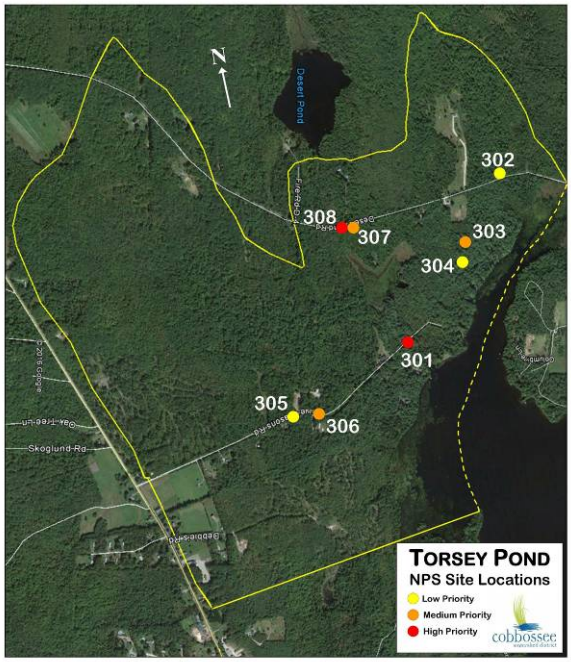
Mapped Watershed Survey Results – 6 Sectors

Individually mapped NPS sites are color-coded.

- **Red – High Priority**
- **Orange – Medium Priority**
- **Yellow – Low Priority**

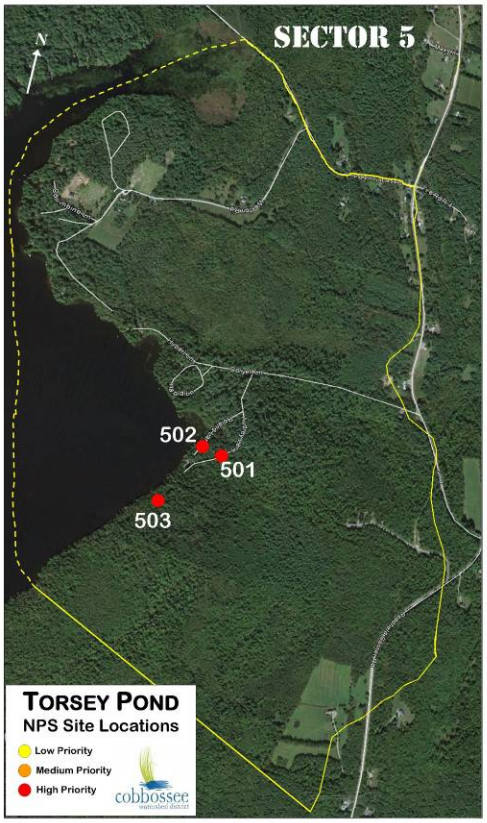

SECTOR 1
N
102
101
104
103
Kents Hill
TORSEY POND
NPS Site Locations
Low Priority
Medium Priority
High Priority
cobbossee

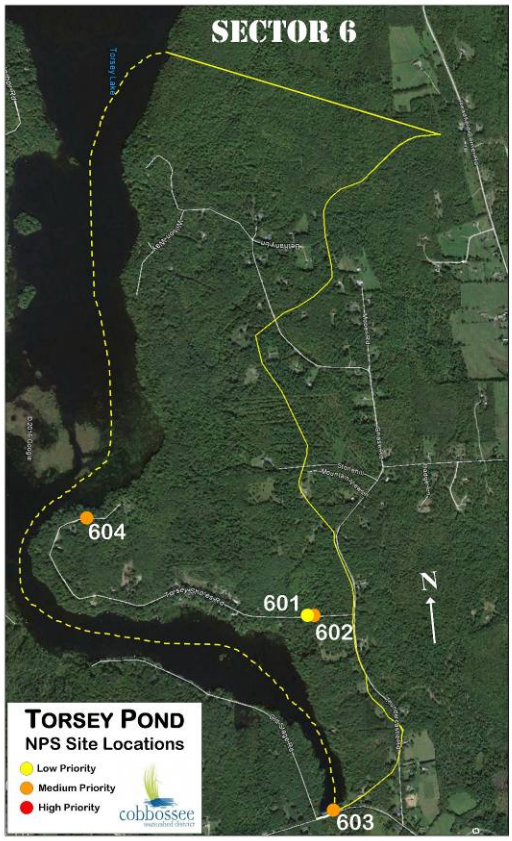

SECTOR 2
Pinegrove Rd
Davies Ln
N
TORSEY POND
NPS Site Locations
Low Priority
Medium Priority
High Priority
cobbossee


N
Desert Pond
302
308
307
303
304
301
305
306
Skoglund Rd
TORSEY POND
NPS Site Locations
Low Priority
Medium Priority
High Priority
cobbossee

SECTOR 3


SECTOR 4
N
401
402
404
403
TORSEY POND
NPS Site Locations
Low Priority
Medium Priority
High Priority
cobbossee


SECTOR 5
N
502
501
503
TORSEY POND
NPS Site Locations
Low Priority
Medium Priority
High Priority
cobbossee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604
601
602
603
N
TORSEY POND
NPS Site Locations
Low Priority
Medium Priority
High Priority
cobbossee

APPENDIX C

Torsey Pond Watershed Site-Tracker

Site #	Land Use	Location*	Latitude	Longitude	Description of Problem	Impact Rating	Landowner name & contact info.	Date Identified
	SECTOR 1							
101	Private Road	Kents Hill Ski Slope	44.40853	-69.99457	Moderate soil and ditch erosion with orange, discolored water flowing to lake.	Med.	Kents Hill School	6/11/2016
102	Private Road	Beans Mills Road	44.41212	-69.99792	Road surface, shoulder, and ditch erosion.	Med.		6/11/2016
103	Private Road	144 Old Stage Road	44.404462	-69.988726	Unstable culvert inlet/outlet, moderate ditch erosion. Visible delta in lake.	Low		6/13/2016
104	Private Road	158 Old Stage Road	44.4048	-69.99005	Moderate ditch erosion. Delta in Lake.	Low		6/13/2016
	SECTOR 3							
301	Private Road	Five Seasons Road	44.06745	-70.70283	Severe road surface erosion with grader berms.	High		5/7/2016
302	Town Road	Desert Pond Road	44.443994	-69.98269	Slight road surface and ditch erosion with grader berms.	Low		5/14/2016
303	Residential, Muni/Public	Intersection of 5 Seasons N & S	44.441382	-69.984512	Severe Surface Erosion to Stream	Medium		5/14/2016
304	Town Road	Abandoned road	44.441039	-69.984861	Severe surface erosion and inadequate rock culvert	Low		5/14/2016
305	Town Road	Upper 5 Seasons	44.436569	-69.996429	Slight road surface and undersized ditch with grader berms.	Low		5/21/2016
306	Town Road	Upper 5 Seasons	44.436497	-69.994796	Moderate road surface, ditch, and shoulder erosion with grader berms.	Medium		5/21/2016
307	Private Driveway	259 Desert Pond Road	44.443181	-69.991642	Moderate surface, ditch, and shoulder erosion to stream.	Medium		6/5/2016
308	Town Road	Desert Pond Road	44.443184	-69.992214	Severe road surface and ditch erosion with grader berms to stream.	High		6/5/2016
	SECTOR 4							

401	Town Road	Dill Road	44.4603	-69.97588	Slight road surfac and moderate ditch and shoulder erosion to stream.	Medium		5/30/2016
402	Town Road	Desert Pond Road	44.44132	-69.97365	Moderate ditch and shoulder erosion to stream.	Medium		5/30/2016
403	Town Road	Desert Pond Road	44.44223	-69.97473	Unstable culvert in/out, moderate ditch erosion to stream	High		5/30/2016
404	Unofficial Boat Launch	Desert Pond Road	44.44293	-69.97662	Moderate surface erosion to pond.	Medium	Barter	5/30/2016
SECTOR 5								
501	Private Road	Andrew/Roland Lane	44.430466	-69.973814	Severe Surface Erosion and Ditcth failure	High		6/18/2016
502	Private Road	Andrew/Roland Lane	44.430747	-69.97429	Severe Surface Erosion.	High	Kingsley	6/18/2016
503	Trail/Path	Andrew/Roland Lane	44.429135	-69.975078	Severe Surface, ditch, and shoulder erosion.	High	Kingsley	6/18/2016
SECTOR 6								
601	Private Road	Torsey Shores Road	44.404056	-69.980412	Clogged Culvert	Low		5/11/2016
602	Private Road	Torsey Shores Road	44.404056	-69.980412	Severe Ditch Erosion to stream.	Medium		5/11/2016
603	Town Road/Boat Access	Old Kents Hill Road	44.396141	-69.982127	Moderate surface and shoulder erosion to pond. Shoreline Erosion.	Medium		5/14/2016
604	Private Road/Boat Access	Torsey Shores Road Private Boat Launch.	44.410189	-69.990209	Moderate surface and shoulder erosion to pond. Shoreline Erosion.	Medium		5/14/2016

** Photos could be hyperlinks to location on the computer, small thumbnails or weblinks to Picasa-type online photo storage

Some of the columns typically in watershed survey spreadsheets

New Columns to add or consider adding to watershed survey data table