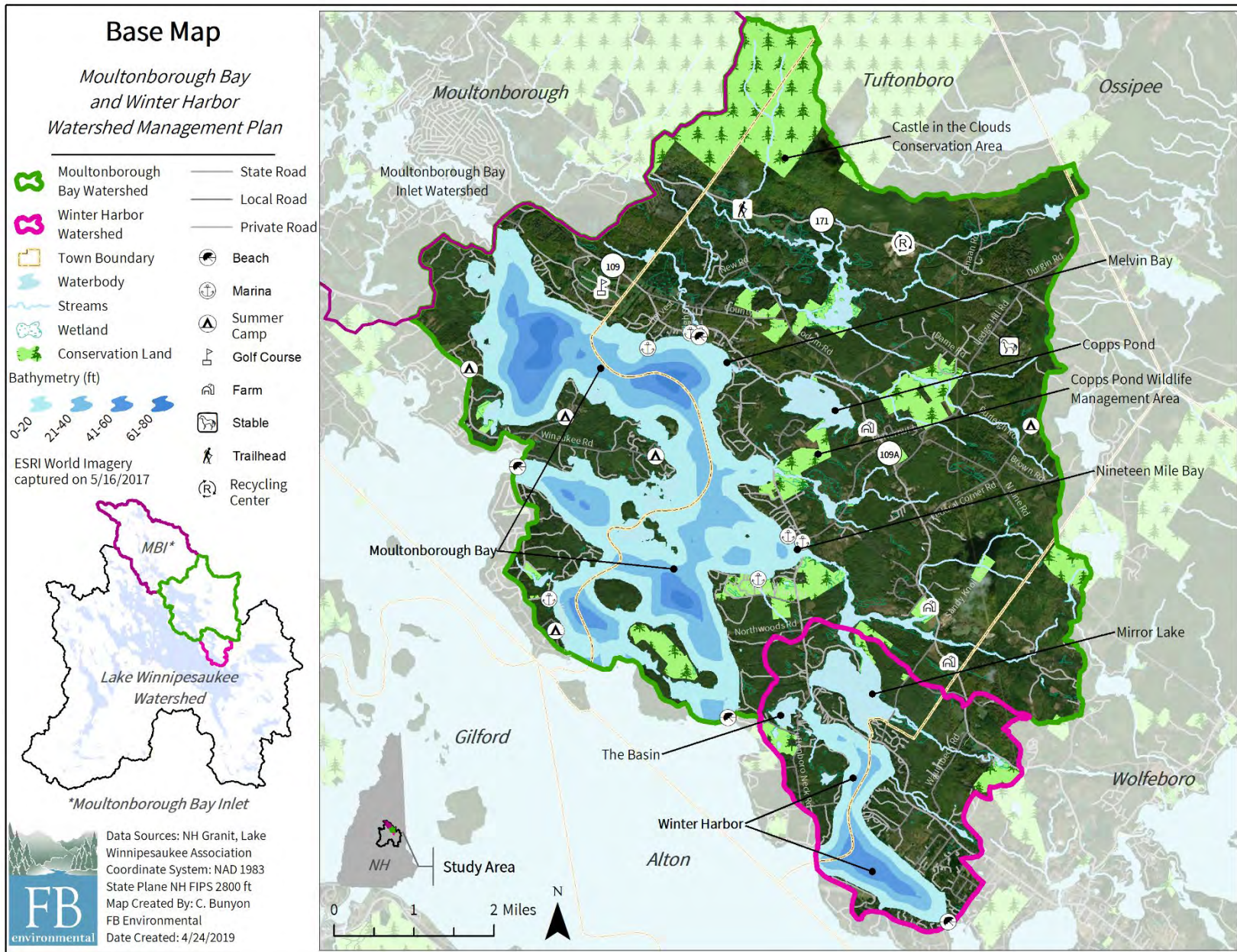


MOULTONBOROUGH BAY & WINTER HARBOR WATERSHED MANAGEMENT PLAN

Appendix A: Map 1

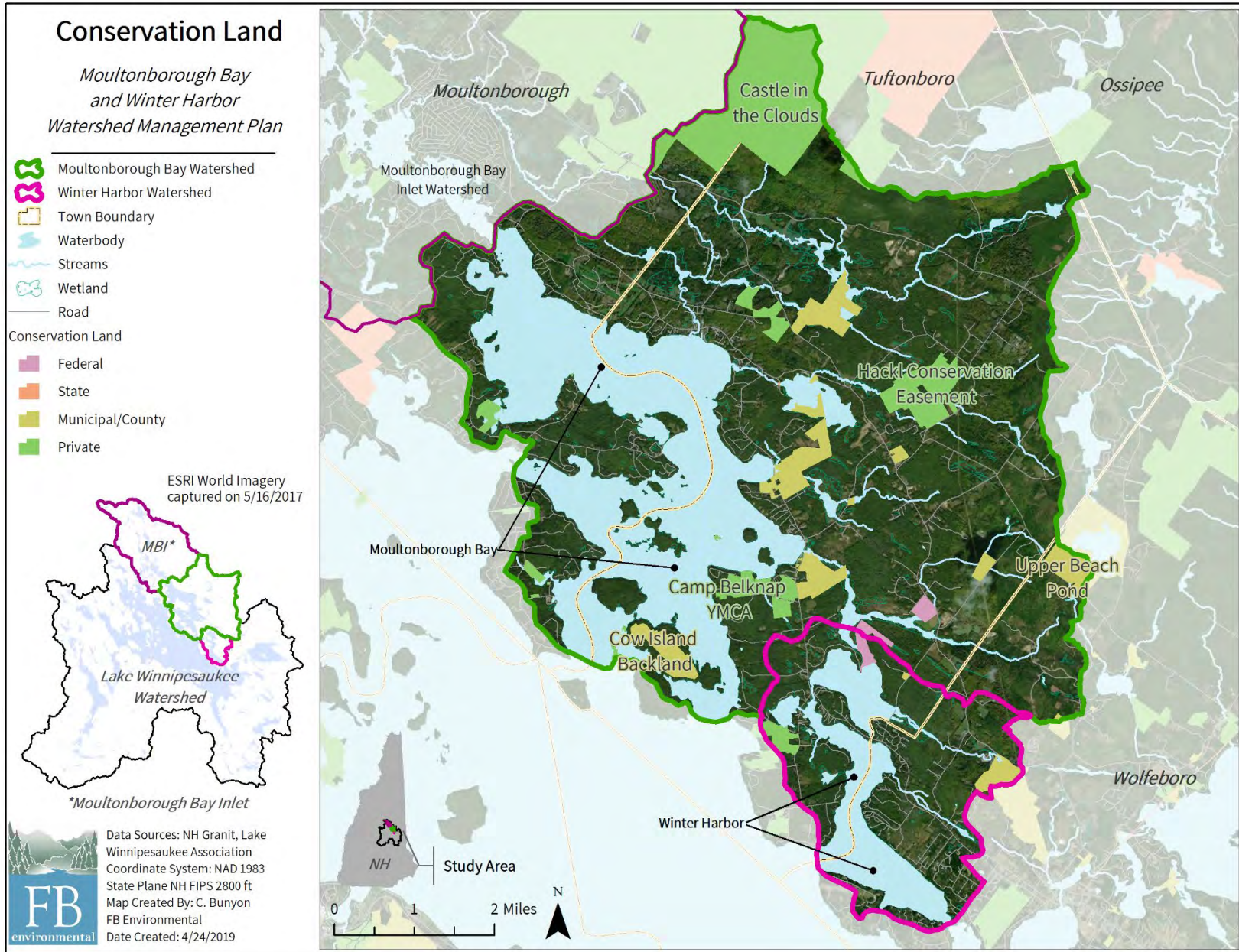


NH Study Area

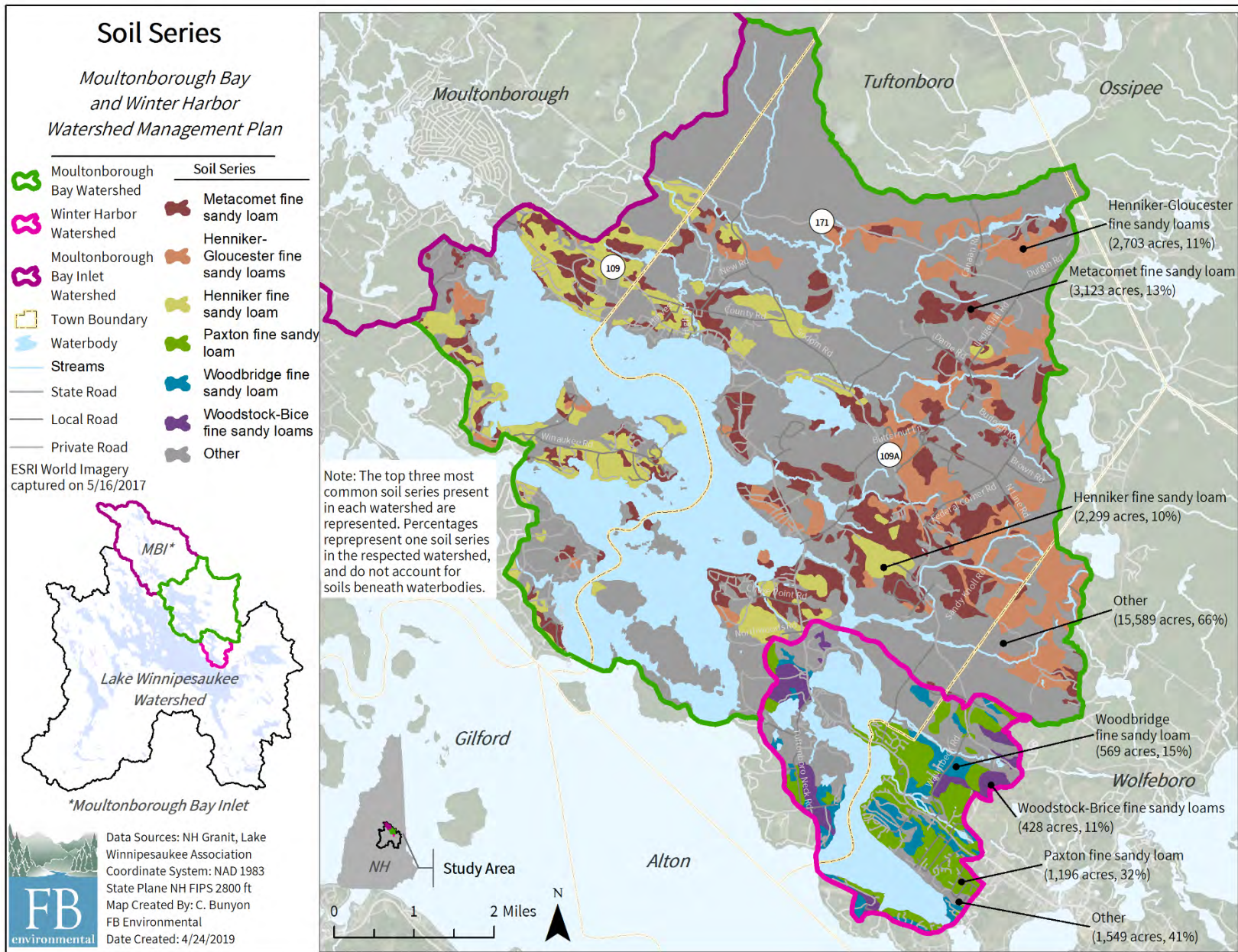
0 1 2 Miles

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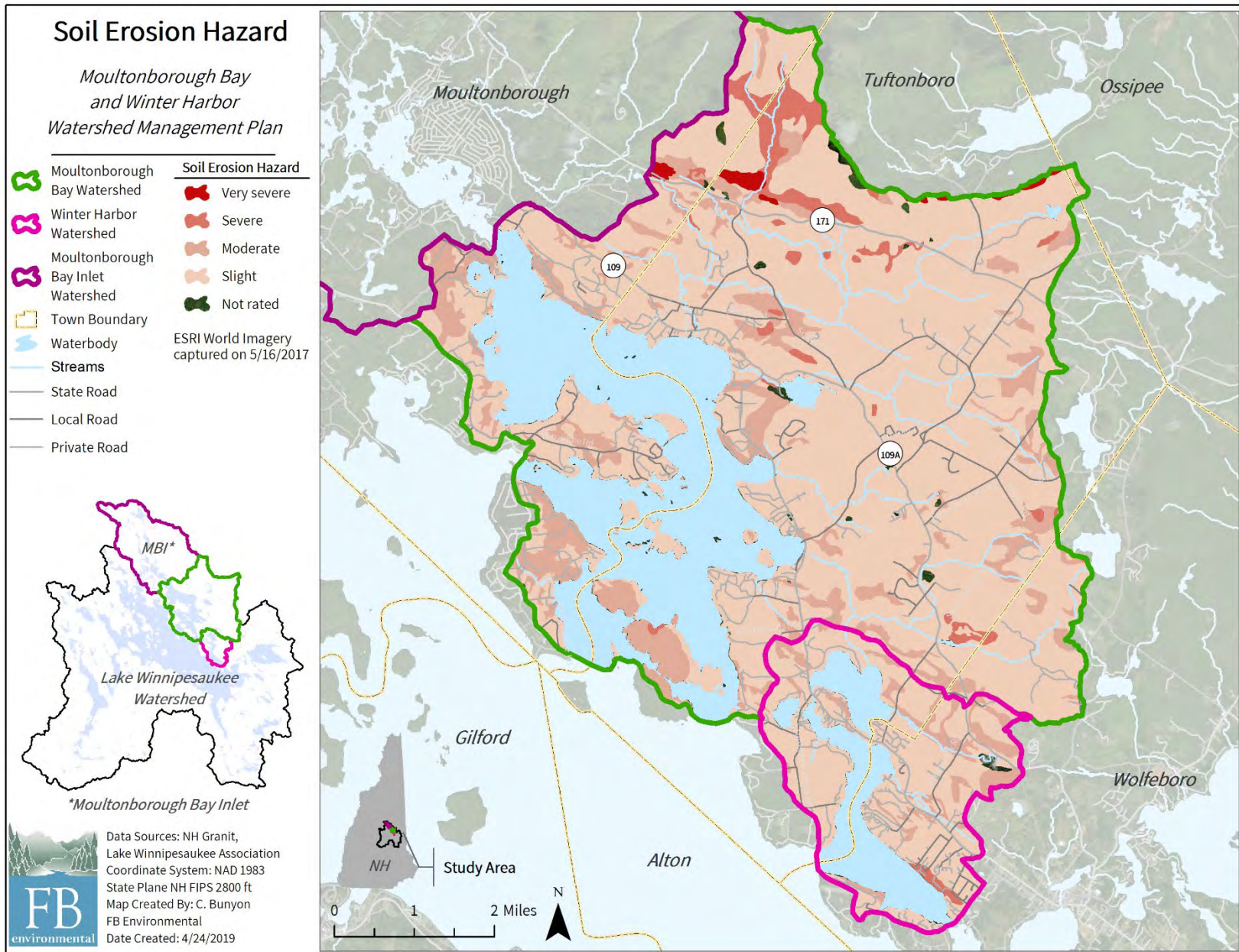
Appendix A: Map 2



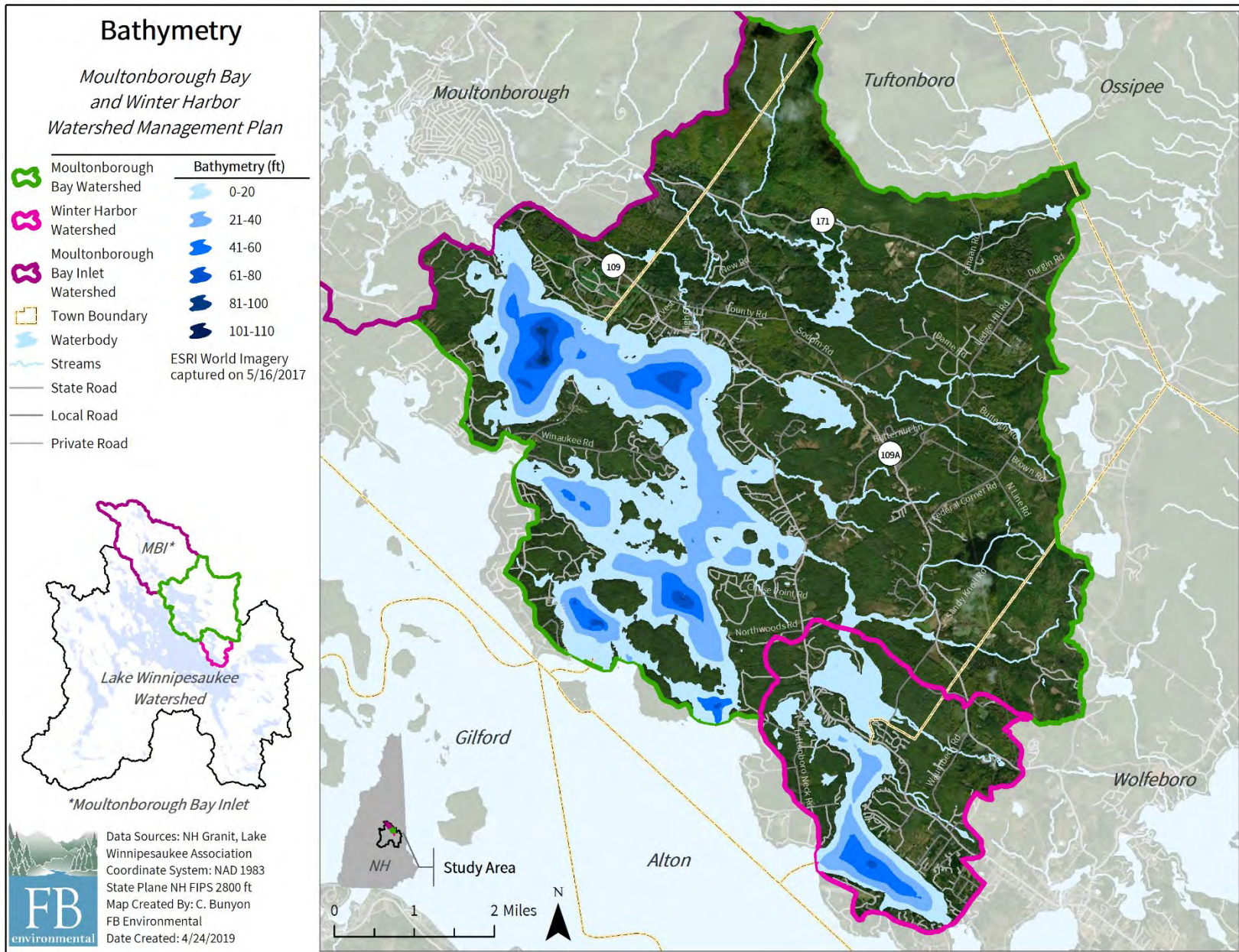
Appendix A: Map 3



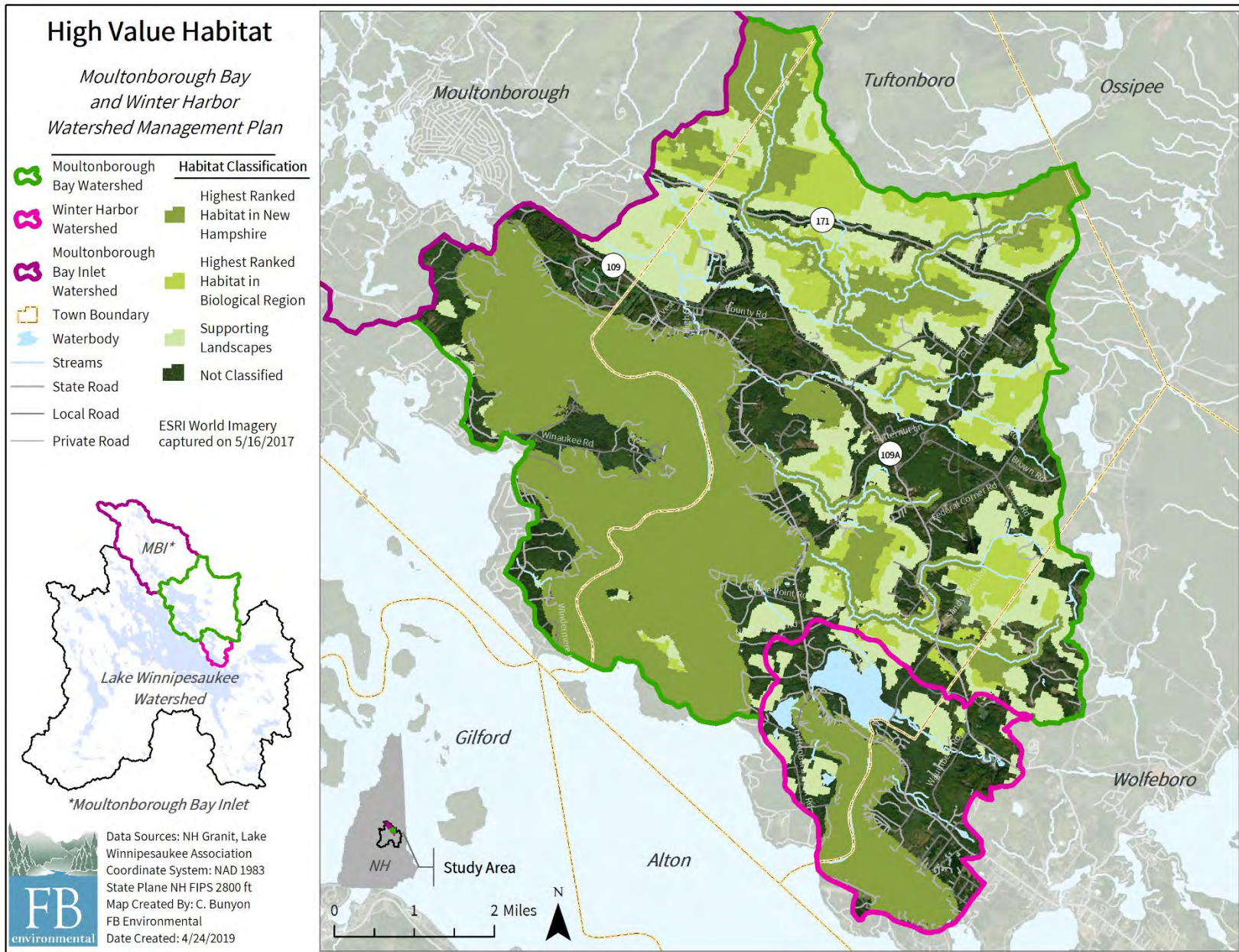
Appendix A: Map 4



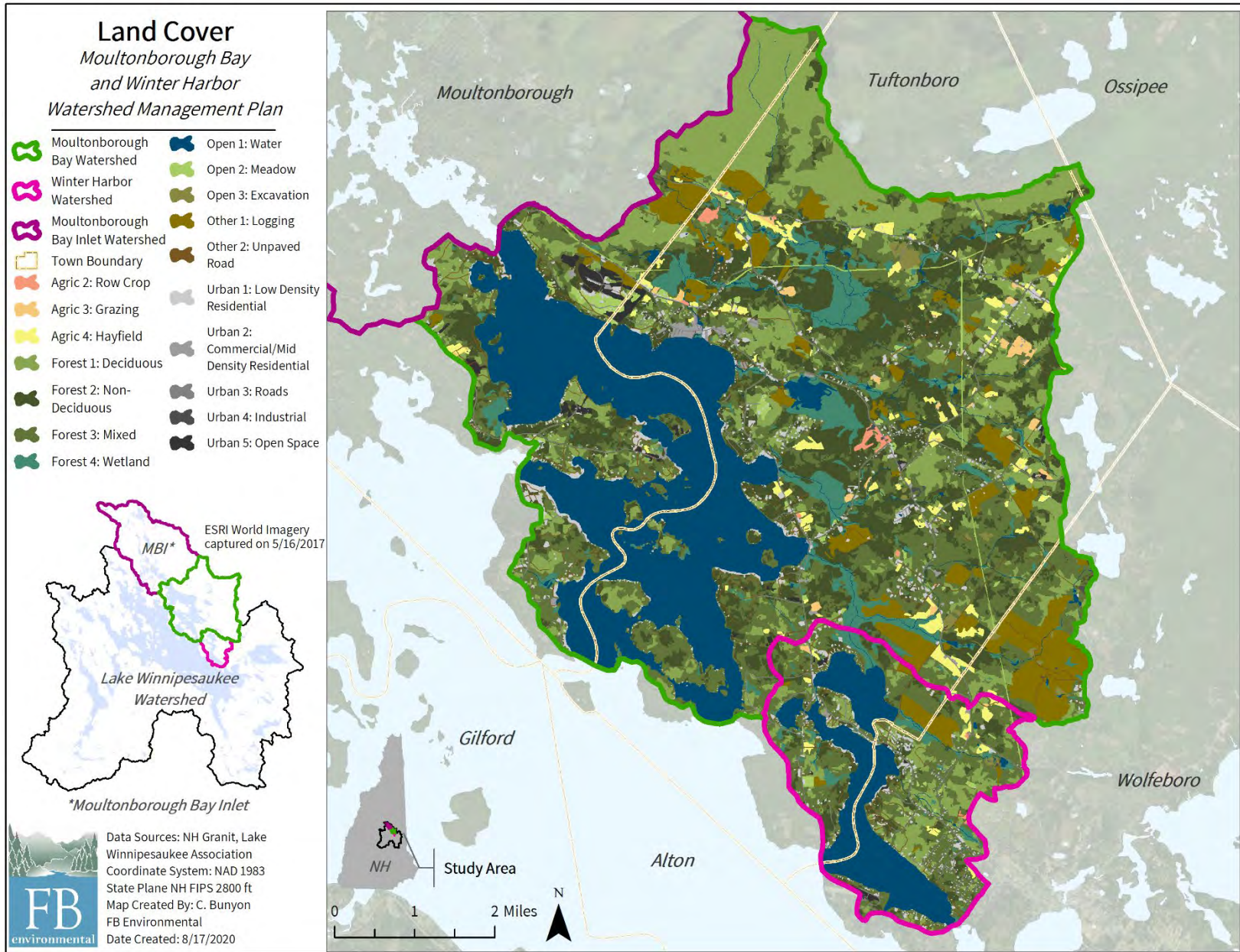
Appendix A: Map 5



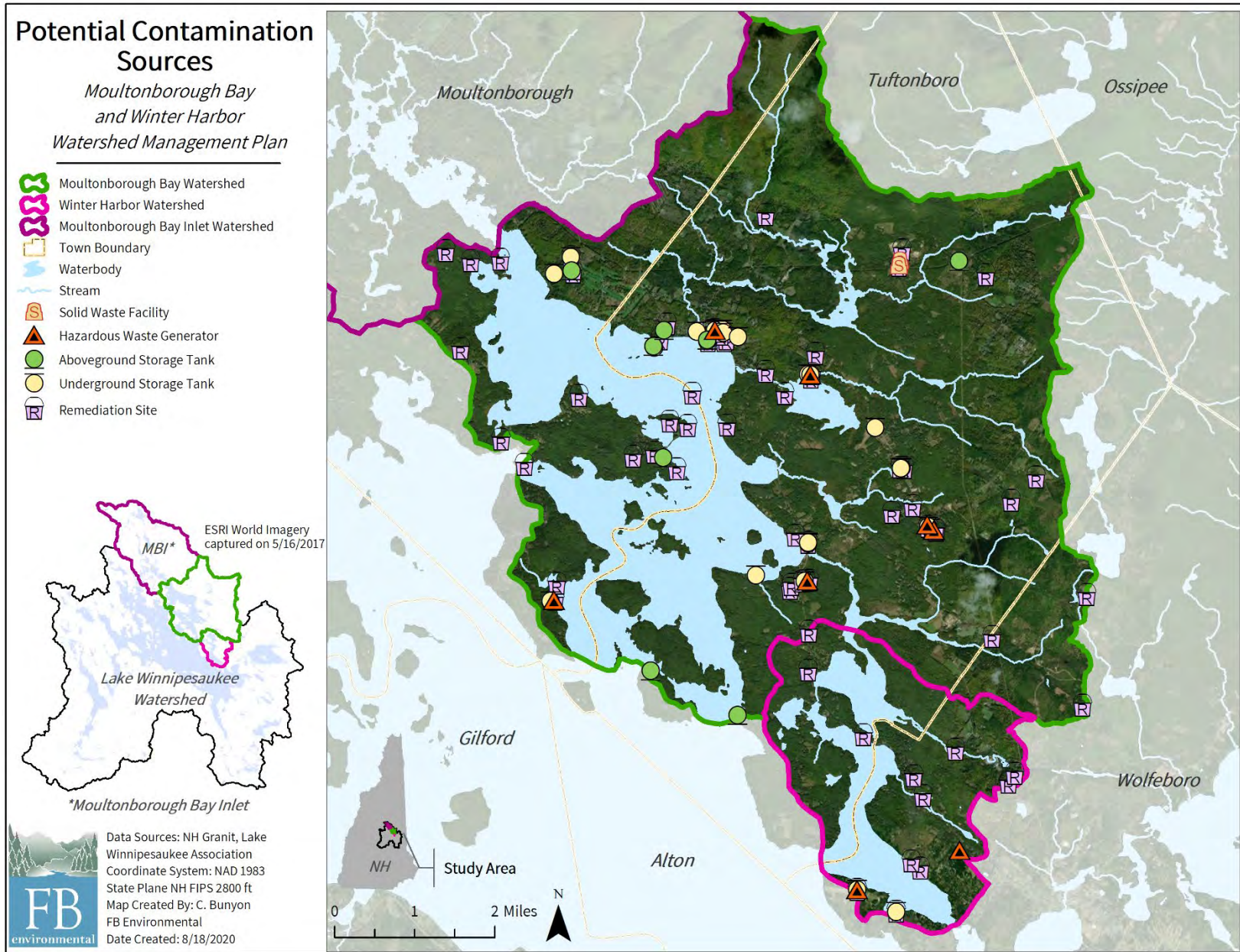
Appendix A: Map 6



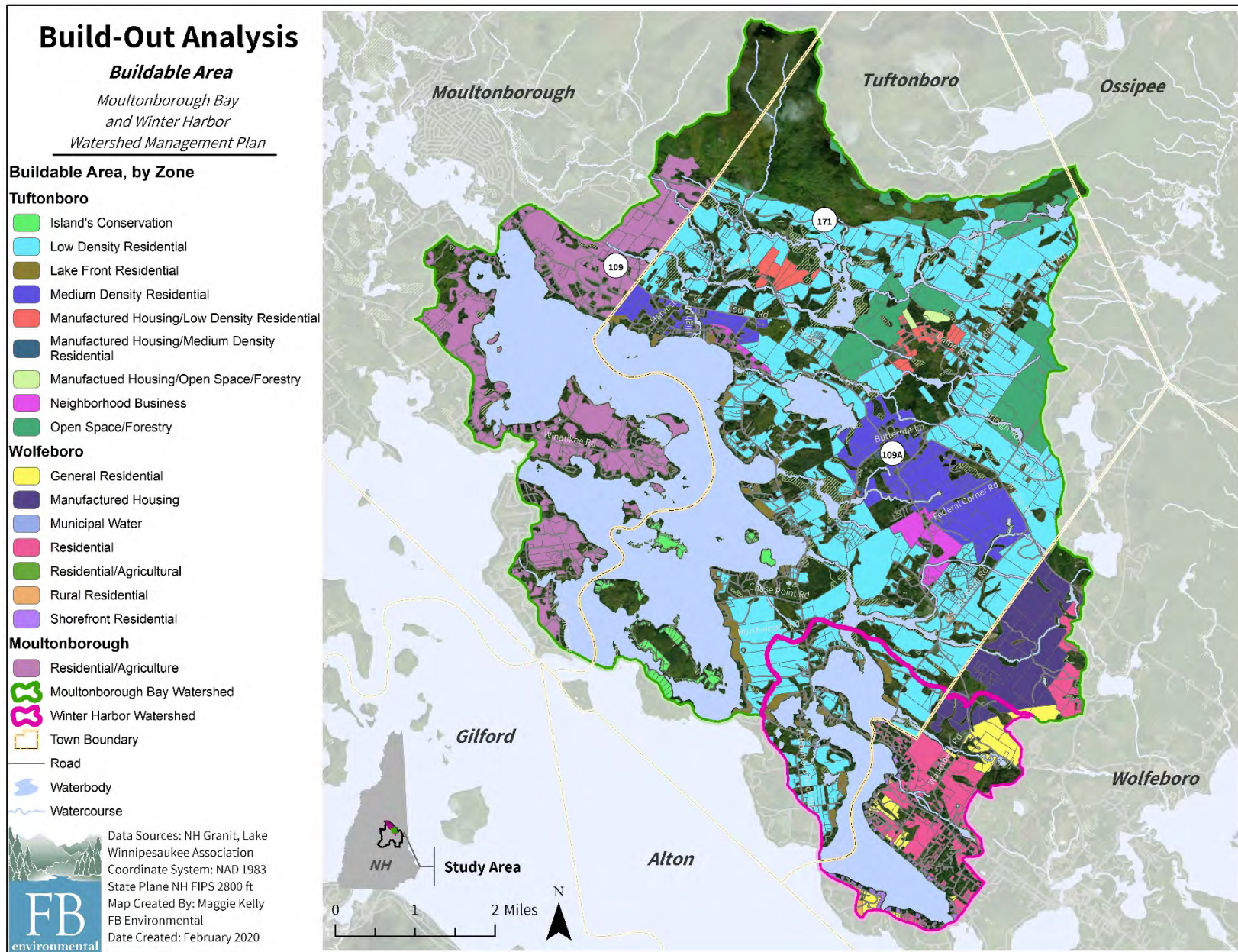
Appendix A: Map 7



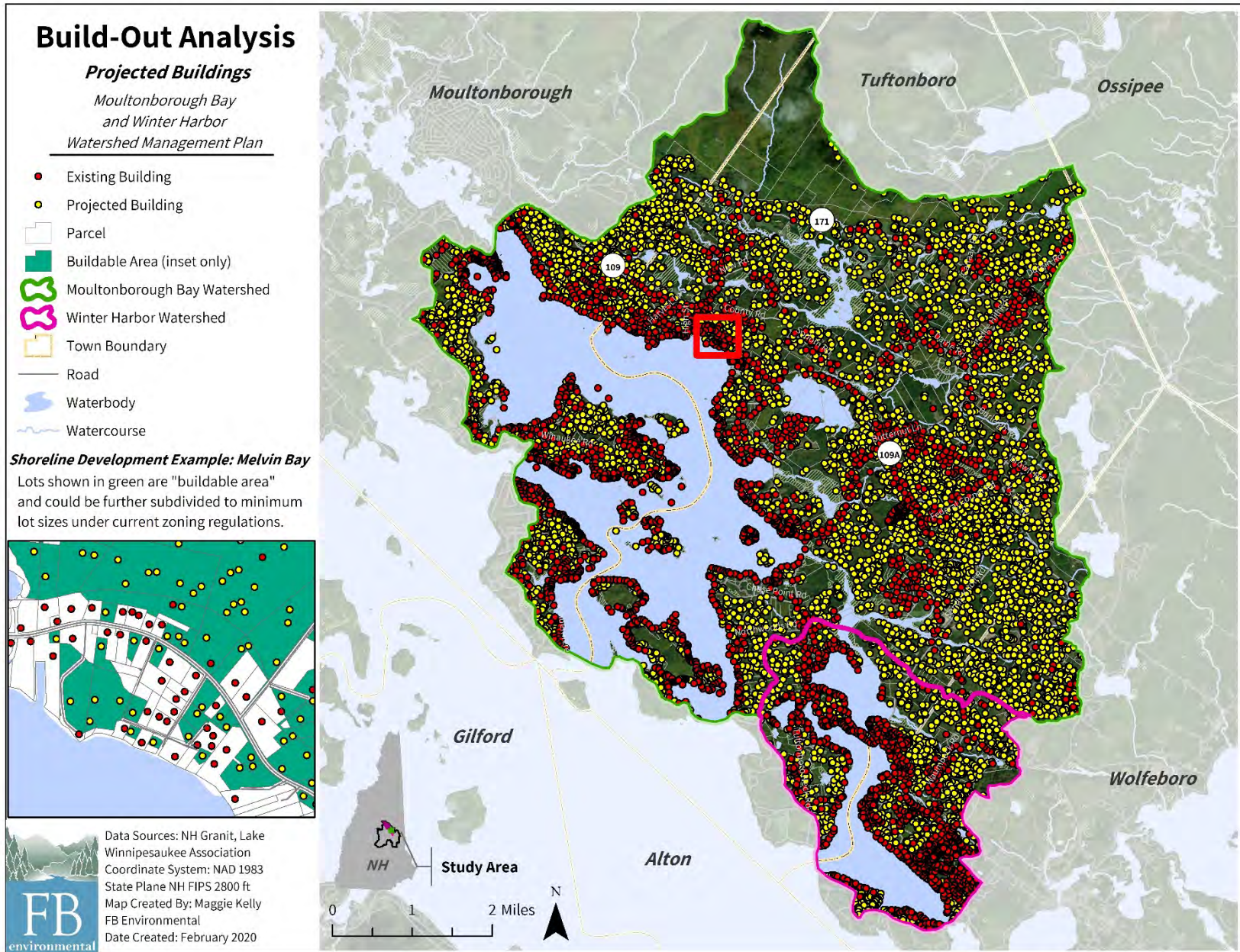
Appendix A: Map 8



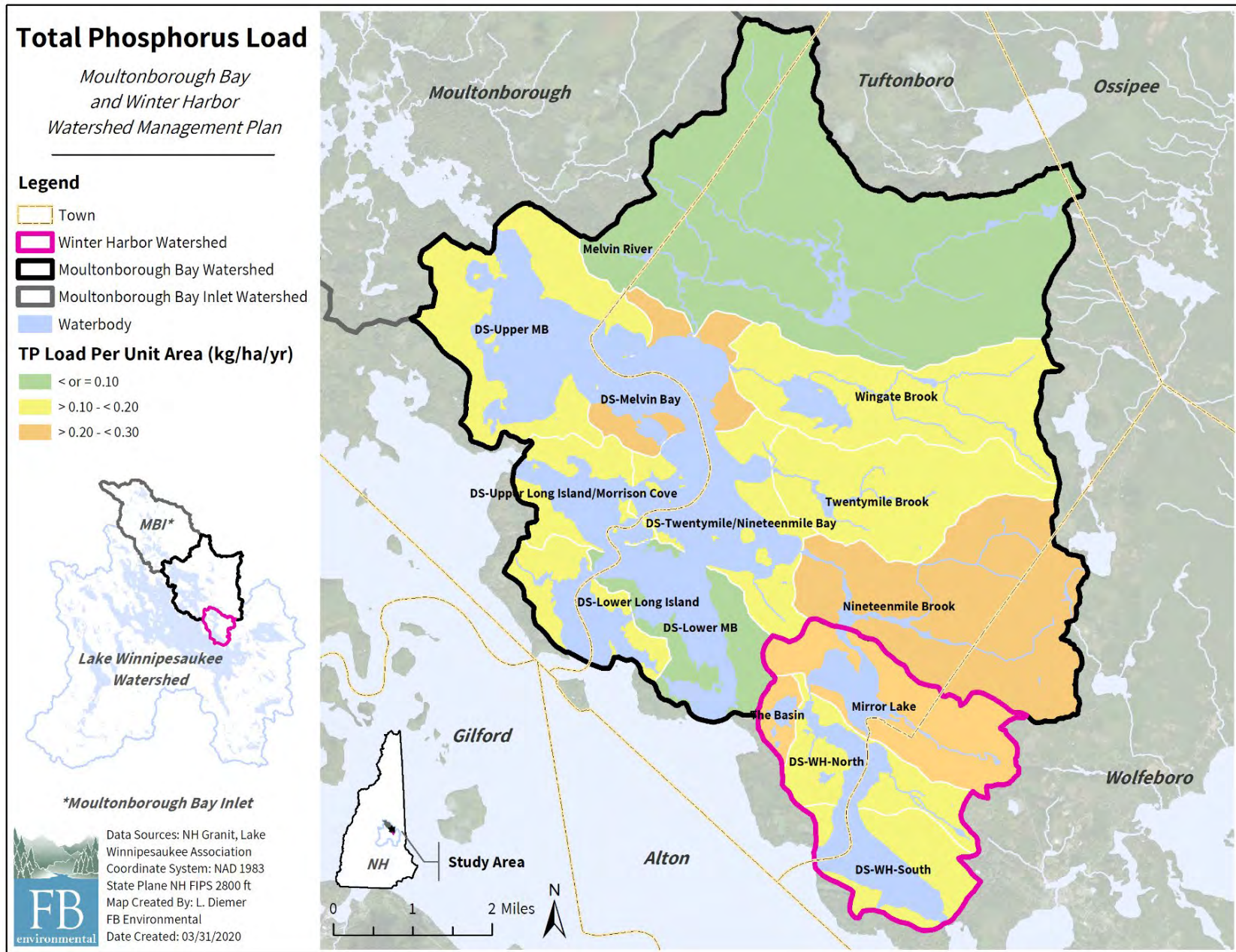
Appendix A: Map 10



Appendix A: Map 11



Appendix A: Map 12



Appendix B: BMP Matrix

DISCLAIMER: POLLUTANT LOAD REDUCTION AND IMPLEMENTATION COST ESTIMATES ARE PRELIMINARY AND FOR PLANNING PURPOSES ONLY														
SITE ID	SURVEYOR(S)	LOCATION DESCRIPTION	TOWN	LATITUDE	LONGITUDE	PROBLEM TYPE	IMPACT	MODEL USED	RECCOMENDATION	TSS (lbs./yr.)	TP (lbs./yr.)	TN (lbs./yr.)	EST. LOW COST	EST. HIGH COST
1-12A*	A. Sohns, F. Bell	New Road	Tuftonboro	43.697228	-71.297995	Road Shoulder / Ditch Erosion / Buffer	High	Region 5	Buffer	20400.0	10.2	20.4	\$15,000	\$20,000
1-05A	A. Sohns, F. Bell	Melvin Village Marina (shoreline)	Tuftonboro	43.687170	-71.302217	Buffer	High	Region 5	Buffer	22000.0	9.4	18.7	\$6,000	\$10,000
4-05	L. Diemer, C. Bunyon	The Basin- WH bridge	Tuftonboro	43.619799	-71.278249	Road Shoulder / Ditch Erosion / Buffer	High	Region 5	Stabilize and Vegetate Road Shoulder	27000.0	11.5	23.0	\$7,500	\$15,000
1-01A*	A. Sohns, F. Bell	Lake 23 rd and High St intersection: Boat Launch	Tuftonboro	43.688530	-71.305122	Buffer	High	Region 5	Infiltration Basin, Buffer	14000.0	6.0	11.9	\$10,000	\$15,000
1-13A	A. Sohns, F. Bell	Clarks Landing	Tuftonboro	43.688910	-71.318976	Water Access Point	Medium	Region 5	Buffer	12320.0	5.2	10.5	\$3,500	\$5,000
6-09	A. Baranovic, G. Norcross, P. Tarpey	63 Winaukee Rd	Moultonborough	43.670430	-71.347951	Severe Culvert Erosion and High-Water Flow	High	Simple Method	Enlarge Culvert, Armor Outlet	1514.2	1.9	8.1	\$2,500	\$5,000
2-08	M. Kelly, S. Champagne	Route 109 Road	Tuftonboro	43.678700	-71.291400	Road Shoulder / Ditch Erosion / Buffer	High	Region 5	Armor Ditches, Buffer	13400.0	5.7	11.3	\$7,500	\$15,000
4-07*	L. Diemer, C. Bunyon	Northwood Road (YMCA road hill)	Tuftonboro	43.634011	-71.282230	Road Shoulder / Surface Erosion / Buffer	Medium	Region 5	Stabilize Culvert, Turnouts	7500.0	3.2	6.4	\$14,000	\$16,000
1-08	M. Burns, P. Tarpey	Off Forest Rd (Wyanoke Gate Lane)	Wolfeboro	43.581770	-71.248032	Road Shoulder / Ditch Erosion	Medium	Simple Method	Install Waterbars	1343.1	1.8	5.7	\$1,500	\$3,000

MOULTONBOROUGH BAY & WINTER HARBOR WATERSHED MANAGEMENT PLAN

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SITE ID	SURVEYOR(S)	LOCATION DESCRIPTION	TOWN	LATITUDE	LONGITUDE	PROBLEM TYPE	IMPACT	MODEL USED	RECCOMENDATION	TSS (lbs./yr.)	TP (lbs./yr.)	TN (lbs./yr.)	EST. LOW COST	EST. HIGH COST
4-01	L. Diemer, C. Bunyon	Hemlock Drive	Wolfeboro	43.599354	-71.237287	Culvert / Road Shoulder / Ditch Erosion	Medium	Region 5	Stabilize Ditches, Add Turnouts	6250.0	2.7	5.3	\$3,500	\$5,000
5-08	A. Baranovic, G. Norcross	Patten Hill Road	Moultonborough	43.653100	-71.336580	Culvert / Road Surface Erosion	Medium	Simple Method	Maintain Culvert, Stabilize Inlet/Outlet	3774.4	4.9	19.5	\$500	\$1,000
5-02	A. Baranovic, G. Norcross	Ferry Road	Moultonborough	43.701397	-71.363056	Culvert / Ditch Erosion	Low	Simple Method	Armor Ditches	1288.4	1.5	7.8	\$500	\$1,000
8-2	A. Baranovic, G. Norcross	Partridge Dr	Wolfeboro	43.58489	-71.23718		Medium	Region 5	Culvert / Gully Erosion / Road Shoulder Erosion	2046.0	0.9	1.7	\$800	\$1,200
2-17	M. Kelly, S. Champagne	Farm Pond Road (storm pond)	Tuftonboro	43.653000	-71.267700	Buffer	Low	Region 5	Buffer	3850.0	1.6	3.3	\$1,000	\$2,500
4-09	L. Diemer, C. Bunyon	Windelboro Road (culvert)	Tuftonboro	43.616518	-71.282466	Culvert / Road Shoulder / Buffer	Medium	Region 5	Replace and Enlarge Culvert, Stabilize Inlet/Outlet	3750.0	1.6	3.2	\$2,500	\$5,000
1-E	M. Burns, P. Tarpey	Keewaydin Rd	Wolfeboro	43.599123	-71.258623	Bare Soil	Low	Region 5	Vegetate Turnout	1500.0	0.6	1.3	\$500	\$1,000
6-03	A. Baranovic, G. Norcross, P. Tarpey	48 Winter Harbor Way	Tuftonboro	43.609199	-71.266923	Road Surface / Road Shoulder Erosion	Medium	Simple Method	Runoff Diverter (Waterbar)	652.7	0.9	3.9	\$1,500	\$3,000
2-21	M. Kelly, S. Champagne	Bixby Shore Road	Tuftonboro	43.636900	-71.296400	Culvert / Road Shoulder / Ditch Erosion	Low	Simple Method	Stabilize Inlet/Outlet	516.4	0.6	3.2	\$500	\$1,000
5-04	A. Baranovic, G. Norcross	Ferry Road	Moultonborough	43.698530	-71.367810	Road Shoulder / Surface Erosion	Low	Simple Method	Maintenance, Turnouts, Vegetate Road Shoulder	1597.3	3.1	13.0	\$2,000	\$5,000
1-11	M. Burns, P. Tarpey	Forest Road at intersection of Parker Island Road	Wolfeboro	43.583316	-71.258255	Culvert	Medium	Region 5	Armor Culvert, Enlarge, Remove Clog	4400.0	1.9	3.7	\$3,500	\$7,500

MOULTONBOROUGH BAY & WINTER HARBOR WATERSHED MANAGEMENT PLAN

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2-18	M. Kelly, S. Champagne	Brown Road	Tuftonboro	43.653000	-71.267700	Road Shoulder / Ditch Erosion	Low	Region 5	Armor Ditches, Maintenance	2750.0	1.2	2.3	\$1,000	\$2,500
2-01	M. Kelly, S. Champagne	Route 109 Bridge at Twenty Mile Brook Discharge/ Beach	Tuftonboro	43.663700	-71.284500	Road Shoulder / Ditch Erosion	Medium	Region 5	Vegetate Road Shoulder	13600.0	5.7	11.5	\$15,000	\$20,000
2-20	M. Kelly, S. Champagne	Route 109	Tuftonboro	43.641200	-71.247800	Culvert / Road Shoulder / Ditch Erosion	Low	Region 5	Buffer	2800.0	1.1	2.3	\$1,000	\$2,500
7-11	A. Baranovic, G. Norcross	710 N Main St	Wolfeboro	43.61230	-71.25528		Medium	Region 5	Replace Culvert	2520.0	1.1	2.1	\$2,000	\$5,000
2-15	M. Kelly, S. Champagne	Dame Road Stream Crossing	Tuftonboro	43.679000	-71.264700	Road Shoulder / Ditch Erosion / Buffer	Medium	Simple Method	Buffer, Stabilize Culvert	107.9	0.3	2.9	\$500	\$1,500
6-05	A. Baranovic, G. Norcross, P. Tarpey	38 Winter Harbor Way	Tuftonboro	43.612568	-71.271200	Clogged culvert / Buried Inlet + Outlet	Low	Simple Method	Replace Culvert	414.1	0.5	1.9	\$2,500	\$5,000
4-08	L. Diemer, C. Bunyon	Windelboro Road (stream crossing)	Tuftonboro	43.616934	-71.283805	Road Shoulder Erosion	Low	Simple Method	Buffer	541.5	1.0	3.1	\$1,500	\$3,500
2-12	M. Kelly, S. Champagne	Sodom Road Melvin River Crossing	Tuftonboro	43.695600	-71.284200	Road Shoulder / Ditch Erosion / Stream	Medium	Region 5	Stabilize Stream Bank	1400.0	0.6	1.1	\$1,000	\$3,500
5-06	A. Baranovic, G. Norcross	Leaward Shores Road (at intersection with Hillcrest Road)	Moultonborough	43.661344	-71.347500	Road Shoulder / Ditch Erosion	Low	Simple Method	Armor/Vegetate Ditches and Road Shoulder	696.0	1.5	5.9	\$1,500	\$5,000
1-08A	A. Sohns, F. Bell	Lands End Marina (runoff)	Tuftonboro	43.686408	-71.315809	Road / Buffer	Medium	Region 5	Install Waterbars	1188.0	0.5	1.0	\$1,500	\$3,000

MOULTONBOROUGH BAY & WINTER HARBOR WATERSHED MANAGEMENT PLAN

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SITE ID	SURVEYOR(S)	LOCATION DESCRIPTION	TOWN	LATITUDE	LONGITUDE	PROBLEM TYPE	IMPACT	MODEL USED	RECCOMENDATION	TSS (lbs./yr.)	TP (lbs./yr.)	TN (lbs./yr.)	EST. LOW COST	EST. HIGH COST
5-05	A. Baranovic, G. Norcross	Buzzell's Cove Road	Moultonborough	43.696722	-71.361111	Road Shoulder Erosion	Low	Simple Method	Runoff Diverters	832.0	1.0	4.3	\$1,500	\$3,000
5-13	A. Baranovic, G. Norcross	RO Brown Road (after Myers Road)	Moultonborough	43.647597	-71.334167	Road Surface Erosion	Low	Region 5	Runoff Diverters	1750.0	0.7	1.5	\$1,000	\$2,500
1-13	M. Burns, P. Tarpey	Old Keewaydin Point Road	Wolfeboro	43.601647	-71.259460	Culvert / Road Shoulder / Ditch Erosion	Low	Region 5	Turnouts	4200.0	1.8	3.6	\$2,000	\$5,000
1-06	M. Burns, P. Tarpey	Forest Rd	Wolfeboro	43.584192	-71.236927	Road Shoulder / Ditch Erosion	Medium	Simple Method	Settling Basins	3472.1	8.4	6.0	\$25,000	\$50,000
1-07	M. Burns, P. Tarpey	End of Winterhaven Rd	Wolfeboro	43.591388	-71.250286	Stream	High	Simple Method	Buffer, Underground Chamber System	2883.2	5.9	0.0	\$25,000	\$50,000
2-07	M. Kelly, S. Champagne	Wawbeek Road	Tuftonboro	43.672100	-71.297500	Road Shoulder / Ditch Erosion / Buffer	Medium	Simple Method	Armor Ditches, Vegetate Road Shoulder	301.4	0.6	2.0	\$3,500	\$5,000
1-01	M. Burns, P. Tarpey	Winnishore Rd	Tuftonboro	43.643810	-71.284586	Road / Water Access Point	High	Simple Method	Regrade, Turnouts, Maintenance	381.0	0.6	2.2	\$5,000	\$10,000
5-01	A. Baranovic, G. Norcross	Wyman Trail	Moultonborough	43.701475	-71.355556	Ditch Erosion	Low	Region 5	Buffer	1200.0	0.5	1.0	\$1,000	\$2,500
5-11	A. Baranovic, G. Norcross	RO Brown Road	Moultonborough	43.649044	-71.339444	Road Surface Erosion	Low	Simple Method	Enlarge Culvert, Vegetate Ditch	2248.9	2.6	8.7	\$2,500	\$5,000
4-04	L. Diemer, C. Bunyon	Tuftonboro Fire house at Mirror Lake	Tuftonboro	43.621357	-71.277268	Road Shoulder Erosion	Medium	Region 5	Catch Basin Filter	500.0	0.2	0.4	\$1,000	\$2,500
1-15A	A. Sohns, F. Bell	Geneva Point to beach	Moultonborough	43.675882	-71.327109	Water Access Point	Medium	Simple Method	Buffer	385.9	0.5	7.2	\$3,500	\$5,000
1-12	M. Burns, P. Tarpey	Nary Shores Road	Wolfeboro	43.591657	-71.243648	Culvert / Road Shoulder / Ditch Erosion	Low	Region 5	Armor Ditches, Restore/Add Pavement	8750.0	3.7	7.4	\$10,000	\$15,000

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2-14	M. Kelly, S. Champagne	Canaan Road	Tuftonboro	43.712200	-71.235200	Road Shoulder / Ditch Erosion	Low	Region 5	Armor Ditches, Vegetate Road Shoulder	2500.0	1.1	2.1	\$3,500	\$5,000
4-03	L. Diemer, C. Bunyon	Waumbeck 23 rd	Wolfeboro	43.603522	-71.244679	Culvert / Road Shoulder Erosion	Medium	Region 5	Armor and Vegetate Ditches	2500.0	1.1	2.1	\$10,000	\$15,000
1-02A	A. Sohns, F. Bell	Lake Road bridge crossing	Tuftonboro	43.688939	-71.303245	Buffer	High	Simple Method	Install Catch Basin, Buffer	128.2	0.3	0.1	\$7,500	\$10,000
1-15	M. Burns, P. Tarpey	Keewaydin, Road	Wolfeboro	43.598037	-71.255189	Culvert / Road Shoulder / Ditch Erosion	Low	Region 5	Armor/Vegetate Culvert, Vegetate Road Shoulder	1250.0	0.5	1.1	\$2,000	\$5,000
1-06A	A. Sohns, F. Bell	Melvin Village Town Wharf	Tuftonboro	43.687892	-71.310532	Buffer	High	Simple Method	Buffer	154.4	0.3	0.7	\$8,000	\$12,000
2-05	M. Kelly, S. Champagne	Sachem Drive	Tuftonboro	43.667800	-71.293300	Buffer	Low	Region 5	Buffer	1080.0	0.5	0.9	\$3,500	\$5,000
6-06	A. Baranovic, G. Norcross, P. Tarpey	NR	Tuftonboro	43.613100	-71.274800	Road Surface Erosion	Medium	Simple Method	Waterbar and Settling Basin	848.4	1.9	1.1	\$30,000	\$45,000
1-02	M. Burns, P. Tarpey	Carry Beach	Wolfeboro	43.581334	-71.241306	Road	High	Simple Method	Underground Chamber System	495.8	1.0	0.0	\$30,000	\$50,000
2-16	M. Kelly, S. Champagne	Union Wharf Road	Tuftonboro	43.712200	-71.235200	Culvert / Road Shoulder / Ditch Erosion	Low	Region 5	Stabilize Inlet/Outlet Culvert	200.0	0.1	0.2	\$500	\$1,000
BMP #4	Underwood Engineers	Intersection of Partridge Dr and Jiminy Dr	Wolfeboro	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	High	na	Bioretention System	na	0.2	na	\$6,200	\$6,200
BMP #3	Underwood Engineers	Intersection of Partridge Dr. and Maplewood Dr	Wolfeboro	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	High	na	Bioretention System	na	0.2	na	\$8,500	\$8,500
1-07A	A. Sohns, F. Bell	Lands End Marina (to right of beach)	Tuftonboro	43.687293	-71.315986	Water Access Point	Medium	Simple Method	Infiltration Basins, Buffer	70.4	0.2	0.2	\$3,500	\$5,000

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2-13	M. Kelly, S. Champagne	Route 171 Road	Tuftonboro	43.703200	-71.243900	Road Shoulder / Ditch Erosion	Low	Simple Method	Settling Basins	1135.9	2.7	1.6	\$40,000	\$55,000
2-11	M. Kelly, S. Champagne	Sodom Road	Tuftonboro	43.693300	-71.282500	Road Shoulder / Ditch Erosion	Medium	Region 5	Armor Ditches, Vegetate Road Shoulder	187.5	0.1	0.2	\$1,000	\$3,500
BMP #2	Underwood Engineers	Partridge Dr. Cross Culvert (south of Maplewood Dr)	Wolfeboro	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	High	na	Bioretention System	na	0.2	na	\$12,700	\$12,700
1-14A	A. Sohns, F. Bell	Garnet Point	Moultonborough	43.678330	-71.333413	Road Shoulder / Ditch Erosion	Medium	Simple Method	Settling Basins, Buffer	152.3	0.4	0.2	\$8,500	\$15,000
2-03	M. Kelly, S. Champagne	Shirley Way Road	Tuftonboro	43.668500	-71.283000	Road Shoulder / Ditch Erosion	Low	Region 5	Maintenance, Vegetate Shoulder, Armor Ditches	250.0	0.1	0.2	\$1,000	\$2,500
1-17A	A. Sohns, F. Bell	Camp Winaukee (beach)	Moultonborough	43.666500	-71.312527	Water Access Point	Medium	Simple Method	Infiltration Basins, Buffer	107.0	0.2	0.2	\$5,500	\$10,000
4-06	L. Diemer, C. Bunyon	Profile 05L intersection	Tuftonboro	43.602948	-71.270190	Construction	Low	Simple Method	Stabilize Road Surface	1392.9	1.7	5.7	\$25,000	\$35,000
1-18A	A. Sohns, F. Bell	Camp Winaukee	Moultonborough	43.667767	-71.312304	Water Access Point	Medium	Simple Method	Infiltration Basins, Buffer	100.9	0.2	0.2	\$5,500	\$10,000
7-8	A. Baranovic, G. Norcross	Port Wedeln Rd	Wolfeboro	43.59257	-71.24494	12/2019 major washout	Low (should be re surveyed)	Region 5	Culvert / Road Shoulder Erosion	540.0	0.2	0.5	\$2,000	\$5,000
5-07	A. Baranovic, G. Norcross	Deerhaven Road	Moultonborough	43.651669	-71.333056	Culvert	Medium	Simple Method	Stabilize Inlet/Outlet Culvert, Plunge Pool	232.0	0.3	1.3	\$12,500	\$15,000
4-02	L. Diemer, C. Bunyon	Hemlock Drive	Wolfeboro	43.599297	-71.239208	Culvert / Road Shoulder Erosion	Low	Region 5	Vegetate/Armor Ditch/Road Shoulder, Turnouts	1350.0	0.6	1.1	\$12,000	\$15,000
2-10	M. Kelly, S. Champagne	Brewster Road and Craig Way Intersection	Tuftonboro	43.686500	-71.298000	Road Shoulder/ Ditch Erosion / Driveway	Low	Simple Method	Maintenance, Settling Basins, Waterbars	641.4	1.5	0.6	\$25,000	\$50,000

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6-07	A. Baranovic, G. Norcross, P. Tarpey	Winter Harbor Way (facing right away from Tuftonboro Neck)	Tuftonboro	43.613482	-71.278618	Road Shoulder Erosion	Low	Region 5	Turnouts	70.0	0.0	0.1	\$2,500	\$5,000
6-08	A. Baranovic, G. Norcross, P. Tarpey	Winter Harbor Way (facing left away from Tuftonboro Neck)	Tuftonboro	43.613482	-71.278618	Road Shoulder Erosion	Low	Region 5	Turnouts	70.0	0.0	0.1	\$2,500	\$5,000
BMP #1	Underwood Engineers	Partridge Dr. Cross Culvert (east of Jiminy Dr)	Wolfeboro	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	High	na	Infiltration Swale	na	0.2	na	\$30,000	\$30,000
6-04	A. Baranovic, G. Norcross, P. Tarpey	Winter Harbor Way	Tuftonboro	43.612568	-71.271200	Road Surface Erosion / Ditch Erosion	Medium	Region 5	Turnouts	62.1	0.0	0.1	\$1,500	\$3,000
BMP #5	Underwood Engineers	Jiminy Dr	Wolfeboro	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	High	na	Bioretention System	na	0.0	na	\$3,000	\$3,000
2-02	M. Kelly, S. Champagne	Shirley Way Road	Tuftonboro	43.672700	-71.279100	Road Shoulder / Ditch Erosion / Stream	Low	Region 5	Vegetate Road Shoulder, Buffer Stream	180.0	0.1	0.2	\$1,500	\$5,000
6-01	A. Baranovic, G. Norcross, P. Tarpey	Winter Harbor Way	Tuftonboro	43.610054	-71.266640	Road Surface/Road Shoulder Erosion	Medium	Region 5	Turnouts	52.5	0.0	0.0	\$1,500	\$3,000
1-16A	A. Sohns, F. Bell	Lakeview Lodge	Moultonborough	43.676465	-71.331760	Septic	Low	Simple Method	Buffer	33.1	0.1	0.5	\$2,500	\$5,000
1-03A	A. Sohns, F. Bell	Melvin Village Marina	Tuftonboro	43.688502	-71.302397	Buffer	High	Simple Method	Repave, Grassed Swale	254.2	0.5	0.7	\$130,000	\$150,000
1-04A	A. Sohns, F. Bell	Melvin Village Marina (fuel concrete pad)	Tuftonboro	43.687329	-71.302115	Buffer / Toxics	High	Simple Method	Secondary Containment	30.1	0.0	0.4	\$10,000	\$20,000
1-14	M. Burns, P. Tarpey	Keewaydin Road (before	Wolfeboro	43.598410	-71.255458	Road / Buffer	Medium	Simple Method	Buffer	11.8	0.0	0.1	\$3,500	\$5,000

MOULTONBOROUGH BAY & WINTER HARBOR WATERSHED MANAGEMENT PLAN

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SITE ID	SURVEYOR(S)	LOCATION DESCRIPTION	TOWN	LATITUDE	LONGITUDE	PROBLEM TYPE	IMPACT	MODEL USED	RECCOMENDATION	TSS (lbs./yr.)	TP (lbs./yr.)	TN (lbs./yr.)	EST. LOW COST	EST. HIGH COST
		pavement ends)												
2-06	M. Kelly, S. Champagne	Sagamore Ridge	Tuftonboro	43.670700	-71.290500	Road	Low	Simple Method	Regrade, Add Waterbars	65.3	0.1	0.2	\$5,000	\$7,500
6-02	A. Baranovic, G. Norcross, P. Tarpey	Winter Harbor Way	Tuftonboro	43.610563	-71.266697	Road Surface/Road Shoulder Erosion / Roof Runoff Erosion	Medium	Region 5	Turnouts, Capture Roof Runoff	70.0	0.0	0.1	\$5,000	\$7,500
1-11A	A. Sohns, F. Bell	Lands End Marina (entry road)	Tuftonboro	43.688970	-71.312067	Culvert / Buffer / Agriculture	Low	Region 5	Restore Stream Channel, Replace Culvert	66.3	0.0	0.1	\$2,000	\$5,000
1-09	M. Burns, P. Tarpey	Johnson Cove Lane	Wolfeboro	43.586689	-71.261562	Toxics	Medium	Simple Method	Eliminate Pesticides, Outreach	0.0	0.0	0.0	\$0	\$0
1-03	M. Burns, P. Tarpey	Whitegate Rd	Wolfeboro	43.584921	-71.241290	Culvert / Road Shoulder / Ditch Erosion	High	na	BMPs at Upstream Sources	na	na	na	na	na
1-04	M. Burns, P. Tarpey	Partridge Drive	Wolfeboro	43.587015	-71.240626	Road Shoulder Erosion	High	na	Included in Whitegate Report	na	na	na	na	na
1-10A	A. Sohns, F. Bell	Lands End Marina (dock fuel station)	Tuftonboro	43.685384	-71.315439	Toxics	High	na	Secondary Containment	na	na	na	\$10,000	\$20,000
1-05	M. Burns, P. Tarpey	Partridge Drive	Wolfeboro	43.586375	-71.240072	Culvert	Medium	Region 5	Armor Ditches, Install Catch Basin, Stabilize Stream	0.0	0.0	0.0	na	na
1-09A	A. Sohns, F. Bell	Lands End Marina (fuel station)	Tuftonboro	43.686098	-71.315534	Toxics	Low	na	Secondary Containment	na	na	na	\$10,000	\$20,000
1-B	M. Burns, P. Tarpey	Partridge Drive Extension	Wolfeboro	43.584860	-71.241721	Bare Soil	Low	na	Maintenance	na	na	na	\$0	\$0
1-D	M. Burns, P. Tarpey	Lloyd Rd	Wolfeboro	43.592642	-71.251093	Flow Volumes	Low	Simple Method	No Recommendations	na	na	na	na	na
Channel 1	Underwood Engineers	Whitegate Neighborhood	Wolfeboro	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	<i>See 2016 Whitegate Report</i>	na	Region 5	Channel Stabilization	1200.0	0.5	1.0	na	na

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SITE ID	SURVEYOR(S)	LOCATION DESCRIPTION	TOWN	LATITUDE	LONGITUDE	PROBLEM TYPE	IMPACT	MODEL USED	RECCOMENDATION	TSS (lbs./yr.)	TP (lbs./yr.)	TN (lbs./yr.)	EST. LOW COST	EST. HIGH COST
Channel 2	Underwood Engineers	Whitegate Neighborhood	Wolfeboro	See 2016 Whitegate Report	See 2016 Whitegate Report	See 2016 Whitegate Report	na	Region 5	Channel Stabilization	1800.0	0.7	1.5	na	na
Channel 3	Underwood Engineers	Whitegate Neighborhood	Wolfeboro	See 2016 Whitegate Report	See 2016 Whitegate Report	See 2016 Whitegate Report	na	Region 5	Channel Stabilization	400.0	0.2	0.3	na	na
Forest Road Swale	Underwood Engineers	Whitegate Neighborhood	Wolfeboro	See 2016 Whitegate Report	See 2016 Whitegate Report	See 2016 Whitegate Report	na	Region 5	Channel Stabilization	600.0	0.3	0.5	na	na
2-04	M. Kelly, S. Champagne	Chandler Road and Route 109 Intersection	Tuftonboro	43.665600	-71.285100	Road	Medium	Simple Method	Maintenance	147.1	0.5	0.0	\$0	\$0
1-A	M. Burns, P. Tarpey	Whitegate Rd	Wolfeboro	43.583995	-71.239963	Culvert	Medium	na	Included in 1-06	na	na	na	\$2,500	\$5,000
2-19	M. Kelly, S. Champagne	Hodges Road (Whitten Brook crossing)	Tuftonboro	43.641500	-71.246100	Road	Low	Region 5	Maintenance	110.0	0.0	0.1	\$0	\$0
1-10	M. Burns, P. Tarpey	Johnson Cove Lane (end of Forest Rd around old airport)	Wolfeboro	43.587511	-71.264095	Road Shoulder / Ditch Erosion	Low	Simple Method	Repave	0.0	0.0	0.0	\$250,000	\$300,000
2-09	M. Kelly, S. Champagne	Sandy Shores Road	Tuftonboro	43.684100	-71.294700	Buffer	Low	Simple Method	Remove Pavement	0.0	0.0	0.0	\$25,000	\$50,000
5-03	A. Baranovic, G. Norcross	Ferry Road	Moultonborough	43.699636	-71.364167	Ditch Erosion	Low	Simple Method	Armor Ditches	na	na	na	\$500	\$1,000
1-F	M. Burns, P. Tarpey	Bixby Shore Road	Wolfeboro	43.638201	-71.297271	Construction	Low	na	Construction Oversight	na	na	na	\$0	\$0
5-09	A. Baranovic, G. Norcross	Patten Hill Road	Moultonborough	43.652200	-71.338690	Culvert / Road Shoulder / Surface / Ditch Erosion	Low	Simple Method	Armor/Vegetate Ditches and Road Shoulder; Replace Culvert	na	na	na	\$2,500	\$5,000
5-10	A. Baranovic, G. Norcross	Patten Hill Road	Moultonborough	43.652011	-71.343056	Road Shoulder / Surface / Ditch Erosion	Low	Simple Method	Armor/Vegetate Ditches and Road Shoulder	na	na	na	\$2,500	\$5,000

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SITE ID	SURVEYOR(S)	LOCATION DESCRIPTION	TOWN	LATITUDE	LONGITUDE	PROBLEM TYPE	IMPACT	MODEL USED	RECCOMENDATION	TSS (lbs./yr.)	TP (lbs./yr.)	TN (lbs./yr.)	EST. LOW COST	EST. HIGH COST
5-12	A. Baranovic, G. Norcross	RO Brown Road	Moultonborough	43.649233	-71.340062	Road Shoulder Erosion	Low	Simple Method	Enlarge Culvert, Vegetate Road Shoulder	na	na	na	\$2,500	\$5,000
1-C	M. Burns, P. Tarpey	Between Port Wedeln Rd and East Shore Rd	Wolfeboro	43.590228	-71.247986	na	Low	na	Maintain Existing BMP	na	na	na	\$0	\$0
7-5	A. Baranovic, G. Norcross	Applewood Dr	Wolfeboro	43.58871	-71.24084		Low	Region 5	Clean Clogged Culvert	92.5	0.0	0.1	\$0	\$0
7-7	A. Baranovic, G. Norcross	Hickory Rd	Wolfeboro	43.59129	-71.24236		Low	Region 5	Clean Clogged Culvert	8.2	0.0	0.0	\$0	\$0
7-9	A. Baranovic, G. Norcross	Port Wedeln Rd @ Earl Shores	Wolfeboro	43.59157	-71.24810		Low	Region 5	Clean Clogged Culvert	26.4	0.0	0.0	\$0	\$0
7-10	A. Baranovic, G. Norcross	718 N Main St	Wolfeboro	43.61313	-71.25589		Medium	Region 5	Clean Clogged Culvert	10.0	0.0	0.0	\$0	\$0
7-30*	HEB Engineers	Ledge Hill Rd	Tuftonboro	See 2019 HEB Report	See 2019 HEB Report	Road Shoulder / Ditch Erosion	Not Rated	Not modeled						
7-31*	HEB Engineers	Federal Corner Rd	Tuftonboro	See 2019 HEB Report	See 2019 HEB Report	Road Shoulder / Ditch Erosion	Not Rated	Not modeled						
7-32*	P. Tarpey, S. Wingate	Lanes End Rd (near top)	Tuftonboro	43.689420	-71.311820	Buffer / Road Shoulder Erosion	Not Rated	Not modeled						
7-33*	P. Tarpey, S. Wingate	4 Harvest Ln	Tuftonboro	43.691230	-71.311720	Buffer / Road Shoulder Erosion	Not Rated	Not modeled						

*Added by Lake Winnepesaukee Association after survey and modeling work.

SUB-TOTAL:	222701.1	134.3	286.7	\$962,700	\$1,405,600
		15% CONTINGENCY:		\$144,405	\$210,840
		TOTAL:		\$1,107,105	\$1,616,440
		ROUNDED TOTAL:		\$1,100,000	\$1,600,000

Appendix C: Final Engineered Site Designs

SEE ATTACHED DOCUMENTS:

- (1) 75% Submission: Design Plans
- (2) 75% Submissions: Stormwater Report
- (3) 75% Submission: Opinion of Probable Cost

Appendix D: Moultonborough – Winter Harbor LLRM Report

SEE ATTACHED DOCUMENTS:

- (1) MB-WH_LLRM_Report_FINAL_04282020 (pdf)

Appendix E: Moultonborough – Winter Harbor Build-out Report

SEE ATTACHED DOCUMENT:

- (1) MBWH_Build-Out_Report_FINAL_04142020 (pdf)