

Nick Golan
Manchester Conservation Commission
c/o City of Manchester Planning and Community Development Department
One City Hall Plaza
Manchester, NH 03101

March 9, 2015

RE: Digital Wetland Mapping of 16 Highest Ranked Wetlands in City of Manchester, NH

Dear Commission Members:

At your request, West Environmental, Inc. (WEI) digitized the boundaries of the highest ranked wetlands in the City of Manchester based on previous studies conducted in 2002-2007.

History

WEI completed a city-wide wetland inventory of over fifty wetlands in 2004. This study included mapping and evaluation of these wetlands on 2000 black and white aerial photography. This report led to a follow-up study to designate Prime Wetlands. The Prime Wetland Evaluation refined the top ranked wetlands based on input from the Manchester Conservation Commission regarding priority functions and landscape setting. The Prime Wetland Evaluation resulted in final aerial photo interpretation of seventeen wetlands and was completed in 2007. The Prime Wetland Designation was tabled by the Commission soon after the report was complete.

Methodology

WEI collaborated with Neatline Associates to prepare digital boundaries of the seventeen highest ranked wetlands. Neatline geo-referenced the spring 2000 black and white aerial photo on which the wetland boundaries were drawn from the 2005 interpretation. WEI then re-mapped the wetland boundaries onto 2010: 1-foot resolution true color aerial photographs acquired in the spring of 2010 for NH DOT and distributed by NH GRANIT using the 2000 photos as a guide.

The new mapping takes into consideration changes in the wetland boundaries of the ten-year period including wetland fill and hydrology alterations by human and beaver activity.

Wetlands 17a, 17b, and 25 are associated with Lake Massabesic and have deep marsh/aquatic bed habitat that is not visible on spring leaf off photography. WEI utilized 2014: 1-meter resolution true color aerial photographs acquired in the summer of 2014 for the USDA National Agriculture Imagery Program (NAIP) and distributed by NH GRANIT to map these wetlands.

Small islands of less than one acre within the mapped wetlands were not mapped as they are surrounded by wetlands and inaccessible.

Digital Wetland Mapping of 16 Highest Ranked Wetlands in City of Manchester

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Results

It is important to note that this wetland mapping does not constitute an on-the-ground wetland delineation and is to be used for planning and protection purposes. We have attached a table that includes Wetland ID and size in acres. We have also included a locus map and three ortho photo maps showing the wetland boundaries mapped for this project. State Plane Geo-referenced wetland boundaries are included with the information in the table.

Wet ID	Acres
4	359.66
17b	10.89
17a	21.11
25	53.86
30	19.21
32	11.50
35	23.44
52a	3.13
52b	0.44
20	16.79
19	22.56
50	23.06
51	1.35
53	1.00
55	21.83
56	0.47
54	0.73

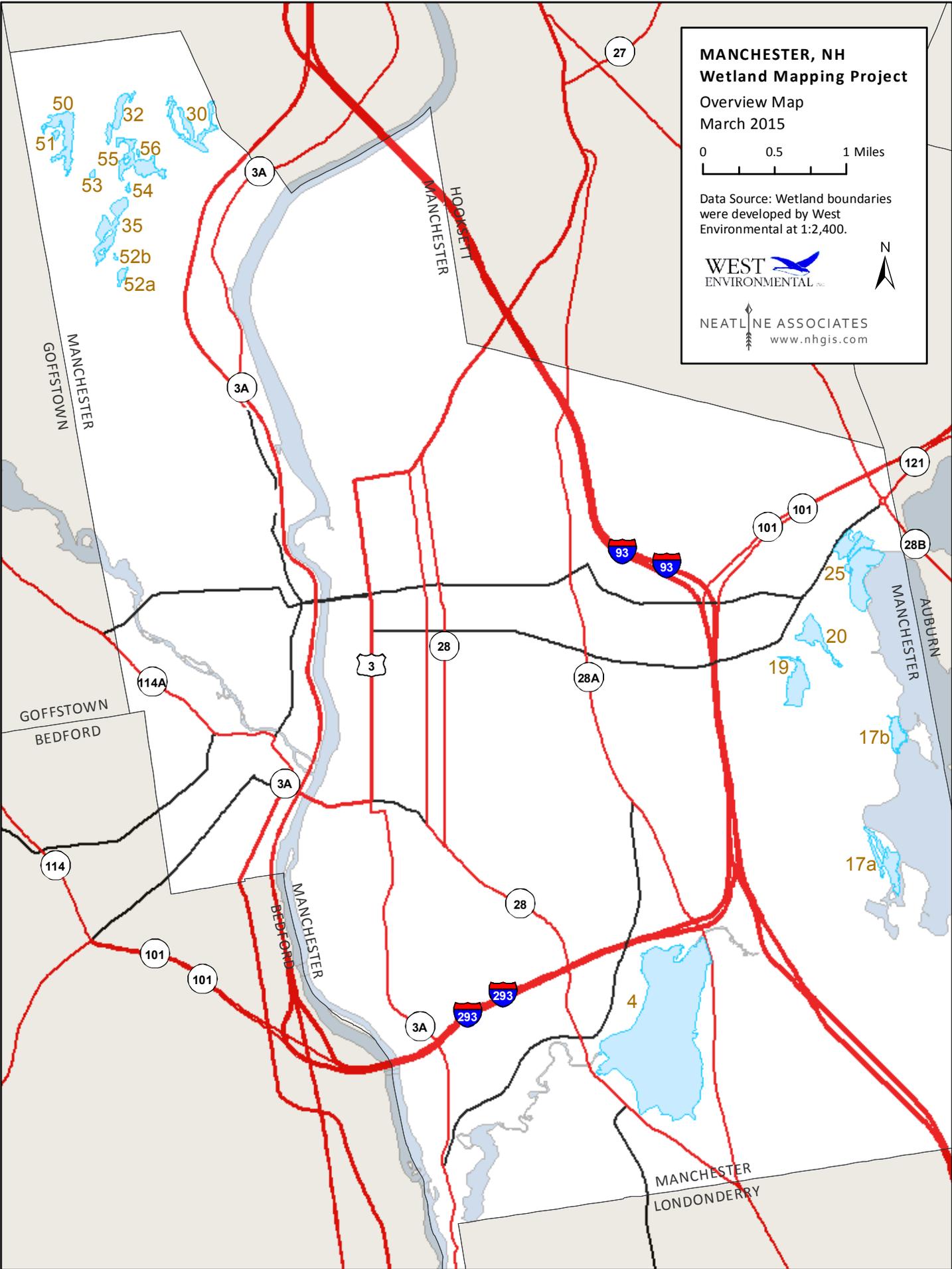
This completes our report at this time. Thank you for giving West Environmental, Inc. the opportunity to work with you on this project.

Sincerely,
West Environmental, Inc.



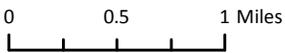
Mark C. West, President
NH Certified Wetland Scientist #10

Cc: Jeff Belanger, Planning and Community Development, City of Manchester



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Wetland Mapping Project**

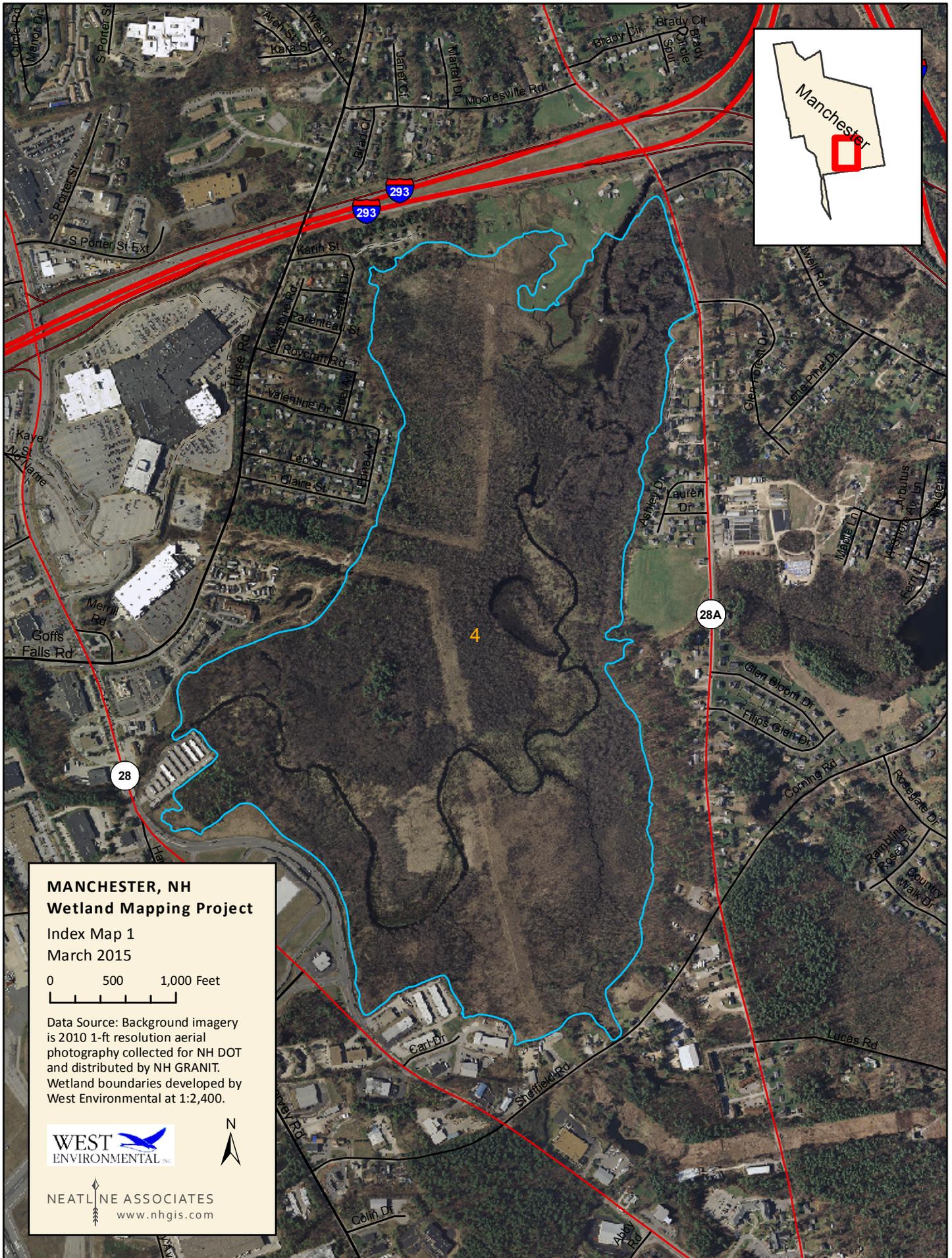
Overview Map
March 2015



Data Source: Wetland boundaries were developed by West Environmental at 1:2,400.



NEATLINE ASSOCIATES
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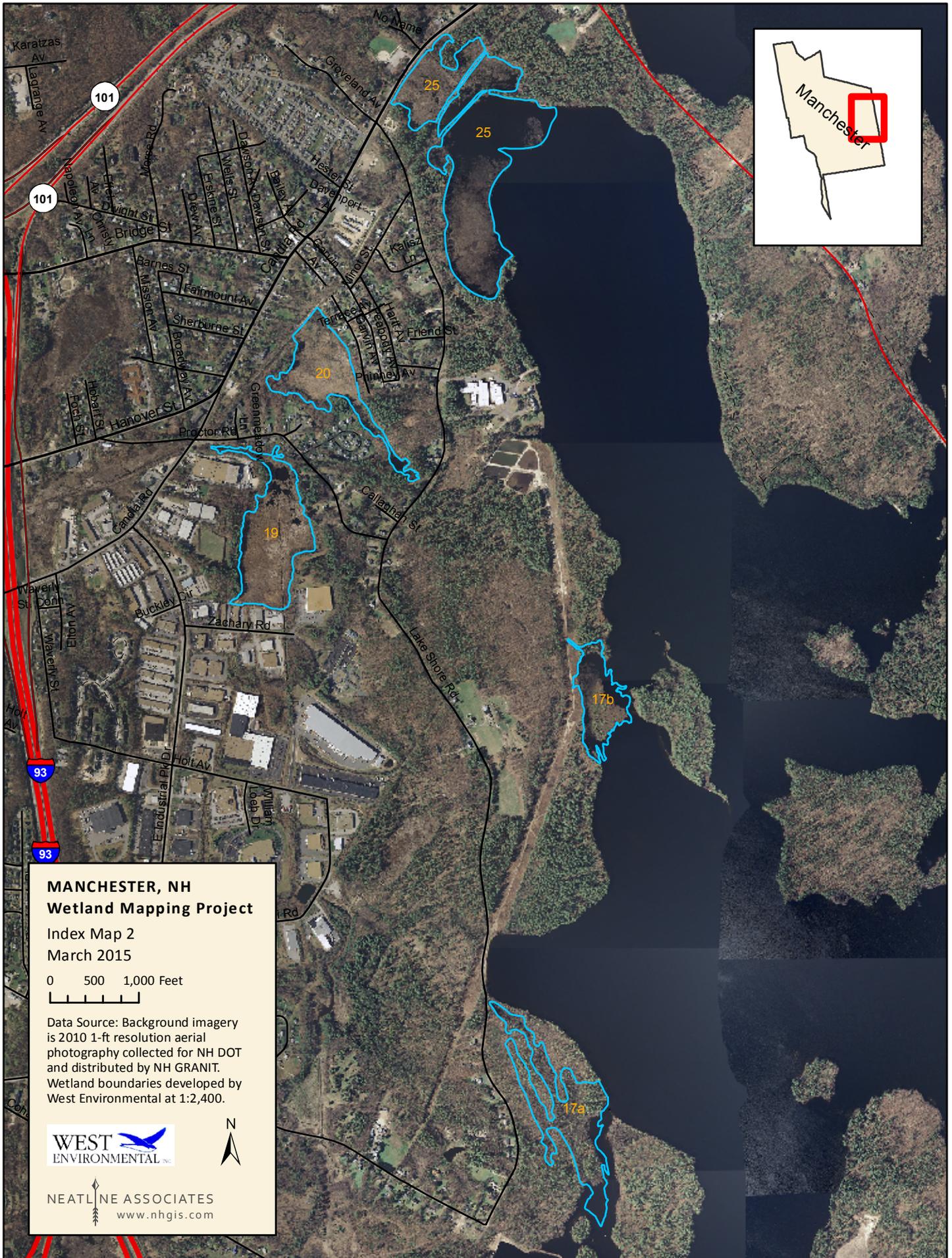
Index Map 1
March 2015



Data Source: Background imagery is 2010 1-ft resolution aerial photography collected for NH DOT and distributed by NH GRANIT. Wetland boundaries developed by West Environmental at 1:2,400.



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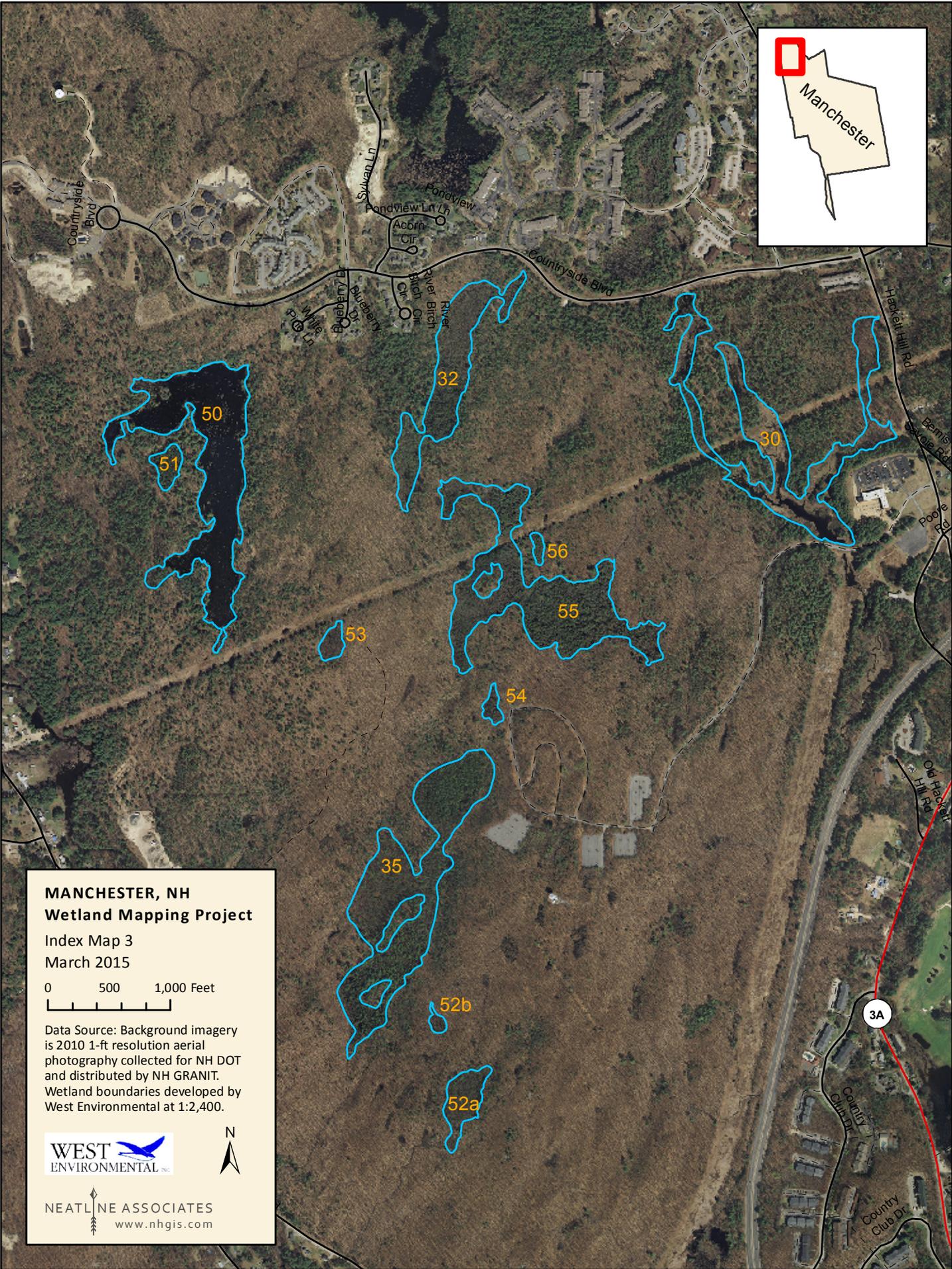
0 500 1,000 Feet

Data Source: Background imagery is 2010 1-ft resolution aerial photography collected for NH DOT and distributed by NH GRANIT. Wetland boundaries developed by West Environmental at 1:2,400.

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0 500 1,000 Feet

Data Source: Background imagery is 2010 1-ft resolution aerial photography collected for NH DOT and distributed by NH GRANIT. Wetland boundaries developed by West Environmental at 1:2,400.

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