

APPENDIX B

ANSWERING QUESTIONS THAT REQUIRE THE GRANIT DATA MAPPER ONLINE TOOLS AND PRINTED MAPS

(Remaining questions are answered during field checking)

- Each of the questions in the table on the following page requires using the **Water Resources Theme** in the **GRANIT Data Mapper**, unless otherwise noted.
- The NWI Wetlands and Hydric Soils data can be displayed simultaneously or separately.
 - Make sure the Wetlands Layer is active by clicking the “active” box in the Layers section. This activates the identify button (i) which is needed to display each **NWI** wetland class code and associated acreages.
 - To identify **Hydric Soils**, make sure the “label” and “active” boxes are checked. Click on the Identify tool, and then click on a soil type for the descriptive name of the soil.
- It is suggested that you switch the Aquifer layer off (uncheck the box in the **Visible** column) for clearer viewing. The Aquifer layer can be turned on again when you need it (check the **Visible** box).
- Depending on which questions you are answering, you can toggle between several backgrounds: DOQ 1998 black & white leaf-off Aerial Photos, NAIP 2003 Leaf-on color Aerial Photos, and DRG Topographic Map (check the Visible box for the background you want displayed).
- If the GRANIT Data Mapper gets stuck during an operation, use the refresh button in your browser.
- Remember to click the APPLY button when you switch a new data layer on or off.
- Select the Utilities Theme to locate a town or region. Use this theme to download maps (scroll down the Utilities Theme menu to the bottom).

Record answers on the *NH Method* Data Sheets

Question #	Feature	Get answers using GRANIT Data Mapper online tools unless otherwise indicated
1 - Ecological Integrity		
Question 7	Road, railroad or driveway crossings	<ul style="list-style-type: none"> Review the target wetland with the 2003 NAIP Aerial Photo background and the Topographic map background to identify road crossings. Confirm road crossings with field checking.
Question 8	Level of human activity in the upland within 500 feet of the wetland edge (land disturbance, clearing, logging, trails, roads, etc.)	<p>With the NAIP 2003 Aerial Photo background turned on, use the Measure Distance Tool to determine a distance 500 ft from the wetland edge.</p> <ul style="list-style-type: none"> Click the Measure Distance button. Click once on the wetland edge, and then click at a distance from the wetland edge to get the 500 ft zone. Assess the level human activity. Only include human activity within 500 ft of the wetland. Confirm human activity with field checking.
Question 9	Number of buildings in 500 ft buffer	<ul style="list-style-type: none"> Follow the same directions as for Question 8 above. Using the Measure Distance button, click once on the wetland edge, and then click once again at a building to check its distance from the wetland edge. Only count buildings within 500 ft of the wetland. Confirm number of buildings with field checking.
2 - Wetland-Dependent Wildlife Habitat		
Question 1	Wetland size (acres)	<ul style="list-style-type: none"> Left click your mouse on the Identify Tool to activate it. Left click your mouse on a wetland class, and a pop up window will give you the wetland vegetation class and acreage. Many wetlands consist of multiple wetland vegetation class polygons, so you have to add the acreage of the different wetland types (you can download this information onto your computer). Field checking is necessary to calculate the final wetland size.
Question 4	Area of shallow, permanent open water and streams	<ul style="list-style-type: none"> Use the Identify Tool to get the acreage of all PAB and PUB wetland vegetation classes. (Note: You can download this information onto your computer). Left click on the Identify Tool to activate it. Use the Measure Distance tool to measure stream length. Click on the start of the stream at the wetland edge, and click on each segment to get a length total. Multiply the resulting stream length by channel width (observe in the field) to get the stream area in square feet, and then convert to acres. Add the stream acreage to the acreage of shallow permanent open water (PUB and PAB codes).
Question 5	Deepwater habitat associated with the wetland (lake, pond or river)	<ul style="list-style-type: none"> Use the Identify Tool to get the acreage of deepwater lakes and ponds. Offline - Check the NH DES List of 4th Order and Higher Streams at http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-08-9.pdf to identify any 4th order or higher streams. Use the Measure Distance tool in the GRANIT Data Mapper to measure the length of the 4th order or higher stream associated with the wetland.

Question #	Feature	Get answers using GRANIT Data Mapper online tools unless otherwise indicated
Question 6	Wetland vegetation class diversity (NWI codes)	<ul style="list-style-type: none"> Use the Identify Tool to get the NWI wetland vegetation classes. (Note: You can download this information onto your computer). Confirm this information with field checking.
Question 7	Other wetlands in close proximity to the study wetland	<ul style="list-style-type: none"> Use the 2003 NAIP Air Photo background together with NWI and hydric soils data. Use the Measure Distance Tool to determine distance to nearby wetlands. Confirm this information with field checking.
Question 8	Wildlife access to other wetlands	<ul style="list-style-type: none"> Use DOQ 1998 and NAIP 2003 Aerial Imagery and identify areas of apparently natural vegetation between wetlands that could function as wildlife travel routes. Confirm this information with field checking.
Question 9	Percent of wetland edge bordered by upland wildlife habitat	<ul style="list-style-type: none"> Use DOQ 1998 and NAIP 2003 Aerial Imagery and use the measure distance tool to identify areas of apparently natural vegetation within 500 ft of the wetland edge. Estimate the percentage of the wetland edge bordered by undisturbed upland habitat. Confirm this information with field checking.
3 – Fish & Aquatic Life Habitat		
Question 1	Land use in watershed	<ul style="list-style-type: none"> Check DOQ 1998 and NAIP 2003 Aerial Imagery for the watershed. Check Land Cover 2001 layer in the Conservation Theme. Confirm this information with field checking.
Question 4	Acres of deepwater habitats	<ul style="list-style-type: none"> Use the Identify Tool to get the acreage of deepwater lakes and ponds (Lacustrine classification).
4 – Scenic Quality		
Question 4	Open water visible	<ul style="list-style-type: none"> Use the Identify Tool to get the acreage of all PAB and PUB wetland vegetation classes and any pond or lake (Lacustrine) acreage. Estimate size of large open river areas. The question is broad: Is the open water area less than one acre, more than three acres, or somewhere in between? Confirm this information with field checking.
Question 6	Visual diversity of vegetation types	<ul style="list-style-type: none"> Follow directions for 2 - Wetland-Dependent Wildlife Habitat, Question 6, but only for areas from which the wetland is likely to be viewed. Confirm with field checking.
5 – Educational Potential		
Question 4	Public or private property with public access	<ul style="list-style-type: none"> Using the Land Conservation Theme if the wetland is shown to be within or adjacent to a conservation property, check with the local conservation commission to determine if public access is present. Confirm this information with field checking.
Question 6	Number and accessibility of wetland classes accessible or potentially accessible for study at educational site	<ul style="list-style-type: none"> Follow directions for 2 - Wetland-Dependent Wildlife Habitat, Question 6, if all vegetation classes are accessible at the education site. Transfer answer.
6 – Wetland-based recreation - NO DATA NEEDED FROM GRANIT DATA MAPPER		
7 – Floodwater Storage		
Question 1	Wetland acres	<p>From On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Follow the directions and transfer the answer from 2 - Wetland-Dependent Wildlife Habitat, Question 1.

Question #	Feature	Get answers using GRANIT Data Mapper online tools unless otherwise indicated
Question 2	Watershed acres	<p>From On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Use the DRG Topographic map background and the drawing tool to draw the watershed boundary. Print out the map and calculate the acreage
8 - Groundwater		
Question 1	Does the wetland overlie stratified drift aquifer?	<p>From On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Check the Visible box to turn on the Aquifer Layer and determine if the wetland overlies stratified drift aquifer
Question 2	Is the wetland in a potential public water supply area?	<p>Use Forest Society Website http://clca.forestsociety.org/nhcl/fgwa.asp</p> <ul style="list-style-type: none"> Using the Favorable Gravel Well map provided on this website, zoom to the town, and locate the area with the wetland. Once you have located the town, you will need to zoom in to at least 600%. Determine if the wetland overlies or is immediately adjacent to a Favorable Gravel Well area.
Question 3	Dominant soil type within 500 ft of the wetland	<p>From On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Using the Soils Theme with soil polygons labeled (check the box in the Label column), visually determine the dominant soil type within 500 ft of the wetland. The Measure Distance Tool can be used to estimate this distance, or, use the scale bar to estimate it.
Question 4	Dominant soil type WITHIN the wetland	<p>From On-line GRANIT Data Mapper: Using the Soils Theme with soil polygons labeled (check the box in the Label column), visually determine the dominant soil type in the wetland itself.</p>
9 - Sediment Trapping		
Question 2	Is there an outlet?	<p>From On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Use the DRG Topographic map to locate any outlet/s or lack of. Confirm this information with field checking, and check the degree of constriction of the outlet in the field.
Question 3	Shape of the stream channel in the wetland	<p>From On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Use the 2003 NAIP Aerial Photos and the Water Resources Theme. Determine shape of the stream channel in the wetland using the full extent of NWI and Hydric Soils polygons.
Question 5	Gradient of Wetland	<p>From the printed map or On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Using the DRG Topographic Map background, determine the highest and lowest elevation of the wetland along its longest axis. Subtract the two elevations to get the elevation difference. Alternatively, you can use Google Earth. As you hold the cursor over a point on a map, the elevation will be displayed in the lower left part of the screen. Determine the elevation at the highest and lowest ends of the wetland, as best as you can identify it on the Google Earth map
Question 6	Areal extent of wetland vegetation classes	<p>From On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Check the Active box for the Wetlands layer. Click the Select by Rectangle tool and draw a rectangle around the wetland. A window opens and gives the wetland class and acreage for each NWI wetland vegetation class polygon within the rectangle. Determine the classes with the most acreage. (Note: You can download this information onto your computer). Confirm this information with field checking.

Question #	Feature	Get answers using GRANIT Data Mapper online tools unless otherwise indicated
10 - Nutrient Trapping/Retention/Transformation – NO DATA NEEDED FROM GRANIT DATA MAPPER		
Question 3	Areal extent of wetland vegetation classes	<ul style="list-style-type: none"> Same as 9 - Sediment Trapping, Question 6 above. Transfer your answer.
11 - Shoreline Anchoring		
Question 4	Gradation of vegetation types	<p>From On-line GRANIT Data Mapper:</p> <ul style="list-style-type: none"> Check the Active box for the Wetlands layer. Determine the wetland vegetation classes along the shoreline of the water body. Confirm this information with <i>field checking</i>.
12. Noteworthiness		
Question 1	Critical Wildlife Habitats	<p>From On-line GRANIT Data Mapper or Printed Maps:</p> <ul style="list-style-type: none"> Using the Wildlife Theme, identify marsh & shrub wetlands, floodplain forests, peatlands, lakes and rivers. This information can also be interpreted from paper copies of the Wildlife Action Plan Habitat Land Cover map.
Question 2	Wildlife Action Plan Highest Ranked Habitats	<p>From On-line GRANIT Data Mapper or Printed Maps:</p> <ul style="list-style-type: none"> Using the Wildlife Theme, select the WAP - Highest Ranked Habitat By Condition layer (turn off the WAP Habitat layers) and observe if any highest ranked habitat (statewide significance – pink; or regional significance – green) appears in or near the wetland. This information can also be interpreted from paper copies of the Wildlife Action Plan Highest Ranked Habitats map.
Question 7	Connection to a state designated river	<p>Refer to the list of rivers in the NH Rivers Management and Protection Program http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-08-9.pdf</p> <p>From On-line GRANIT Data Mapper</p> <ul style="list-style-type: none"> Use the Measure Distance Tool to determine distance to the nearest state designated river, if applicable.