

NOI Shared opportunities NH MS4 Permit

Impaired waters pg 2 of the permit

Source: NHDES 2010

Tasks

- 1: develop maps and querriable spreadsheets for all partner communities (UNHSC, GRANIT)
- 2: Develop consensus around various pollutants and what addition criteria/reporting/actions are necessary. For instance are chloriphyll-a and phosphorus impairments essentially the same. If not/why?

Impaired waters and outfall maps protocol:

Step 1 Process: Identify MS4 permit area or simply use town boundaries. Identify major drainage areas that drain to impaired (water quality limited) receiving waters. Using available geospacial elevation information such as lidar data (if available) or other up-to-date digital elevation models (DEM) delineate the subdrainage areas. There are some useful geoprocessing tools in ARCGIS that can help (i.e. ARC-Hydro or simple external sources such as stream states (USGS).

Data sources:

Urbanized area shape files: source US Census as a note: the 2012 and 2014 Assessment mappers now have the EPA MS4 areas as a feature class you can turn on if wanted.

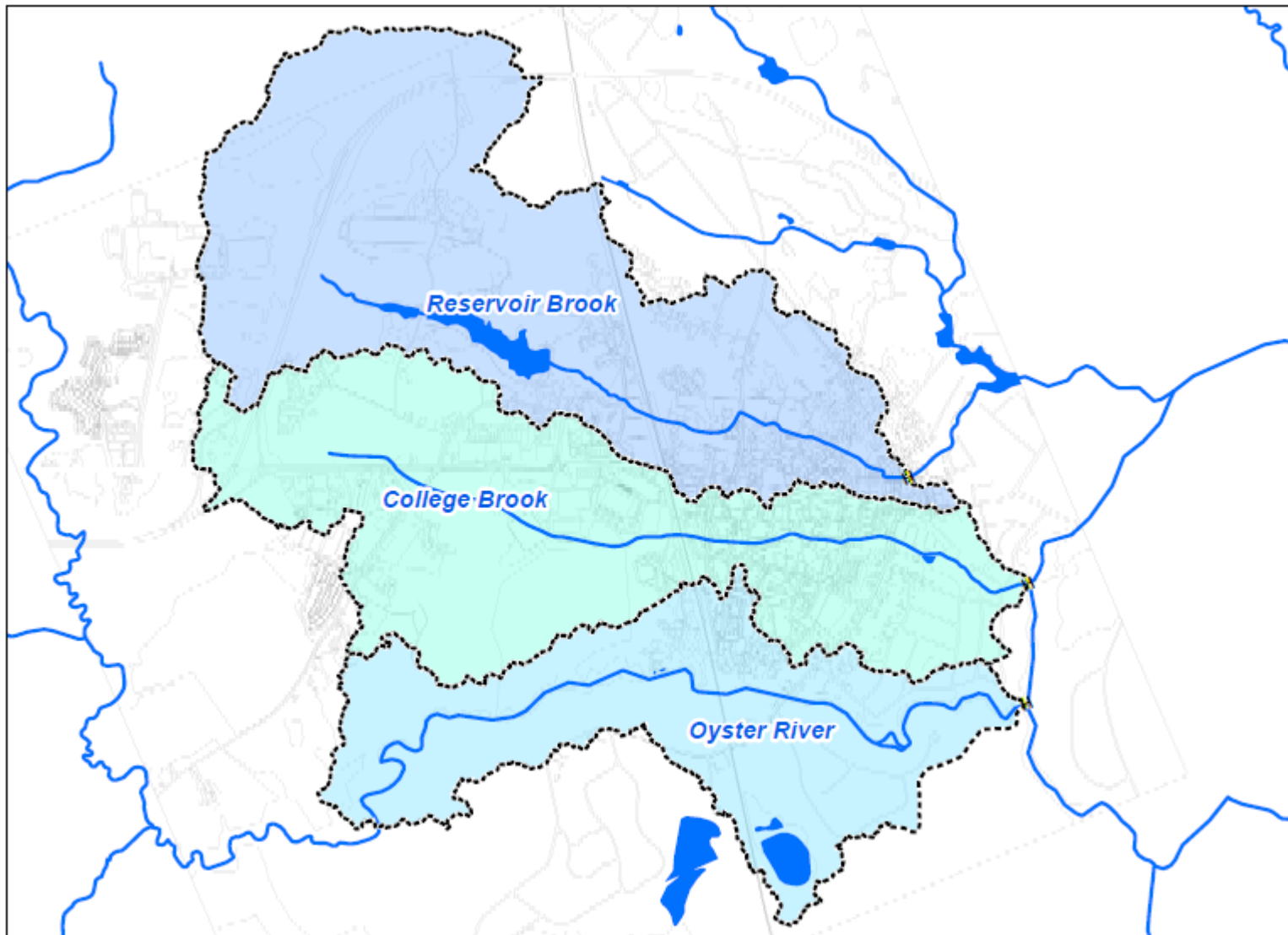
Georeferenced stretches of impaired waters, preferably as shape files: source The GIS layers for the assessment units are on the NHDES FTP:

<http://www.des.nh.gov/organization/divisions/water/wmb/swqa/2014/documents/2014-gis-layers-for-aus.pdf> .

The assessments themselves are in a big flat file

<http://www.des.nh.gov/organization/divisions/water/wmb/swqa/2014/documents/2014-all-aus.xlsx>

Additional needs/next steps: We need to find a way to list or identify georeferenced impaired water segments and their impairments and associated contributing pollutants of concern.



Outfall mapping:

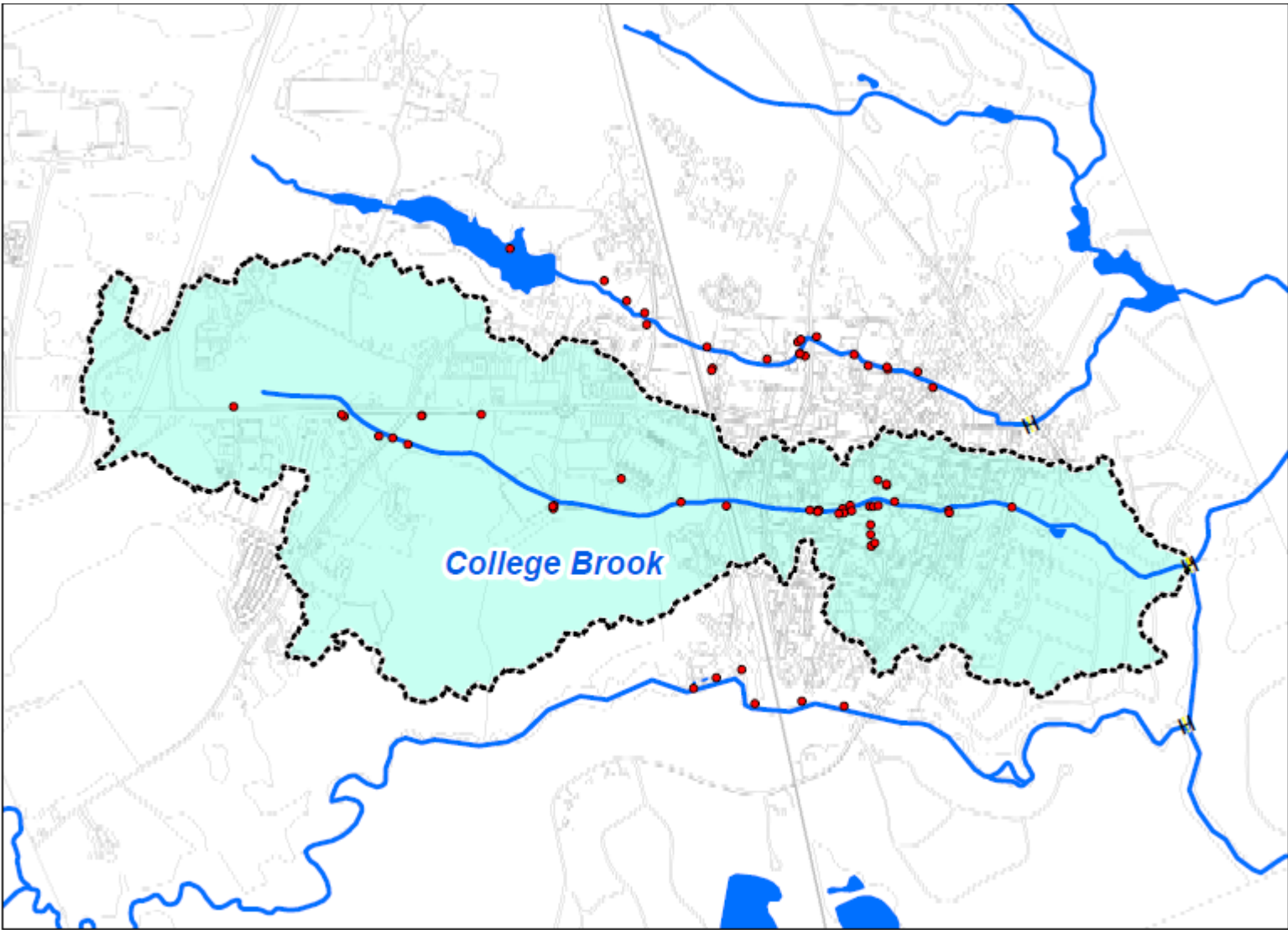
Step 2 Process: Identify outfalls to impaired water segments and add to maps.

Data sources: likely a combination of data and may be different for every community.

- Data from a plan then digitized from as-built plans
- GPS datum
- RTK GPS

Additional needs/next steps: Link potential outfalls to impairments and various pollutants of concern and what addition criteria/reporting/actions are necessary.

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Step 3 Process: Identify Impairments and Pollutants of Concern

- Nitrogen: (Oyster River)
- Phosphorus: (Oyster River – Chlorophyll-a)
- Dissolved Oxygen: (College Brook, Hamel Brook, Oyster River, Reservoir Brook)
- Bacteria/Pathogens: (College Brook, Hamel Brook, Oyster River, Reservoir Brook)
- Chloride (College Brook, Reservoir Brook)
- Additional requirements for direct discharges from the MS4

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