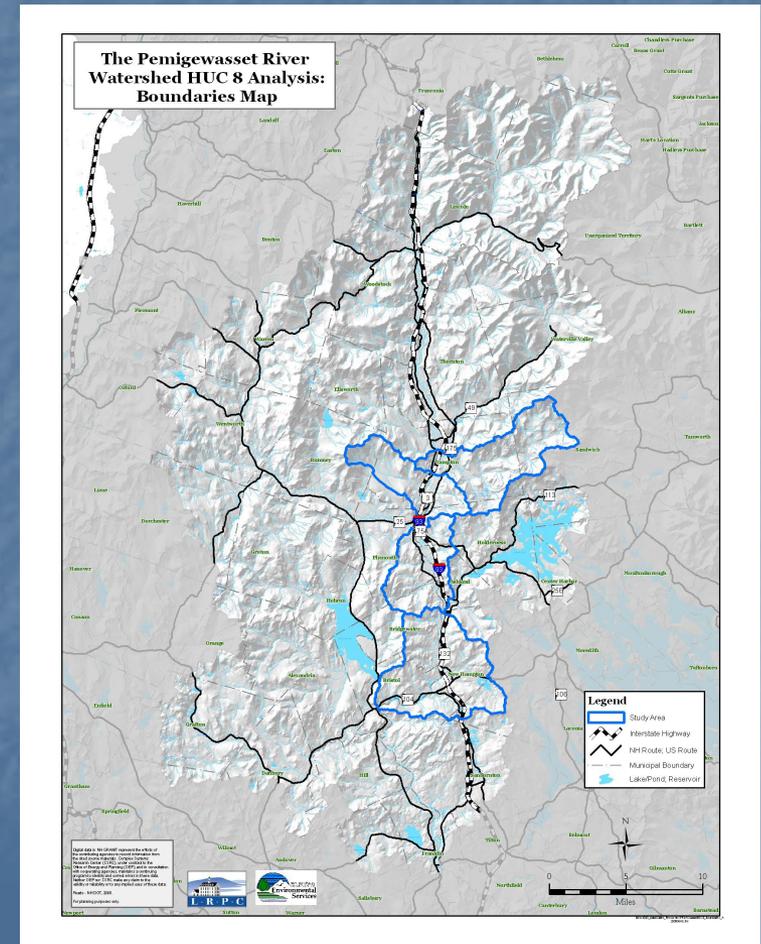


Pemigewasset Watershed Resource Co-occurrence

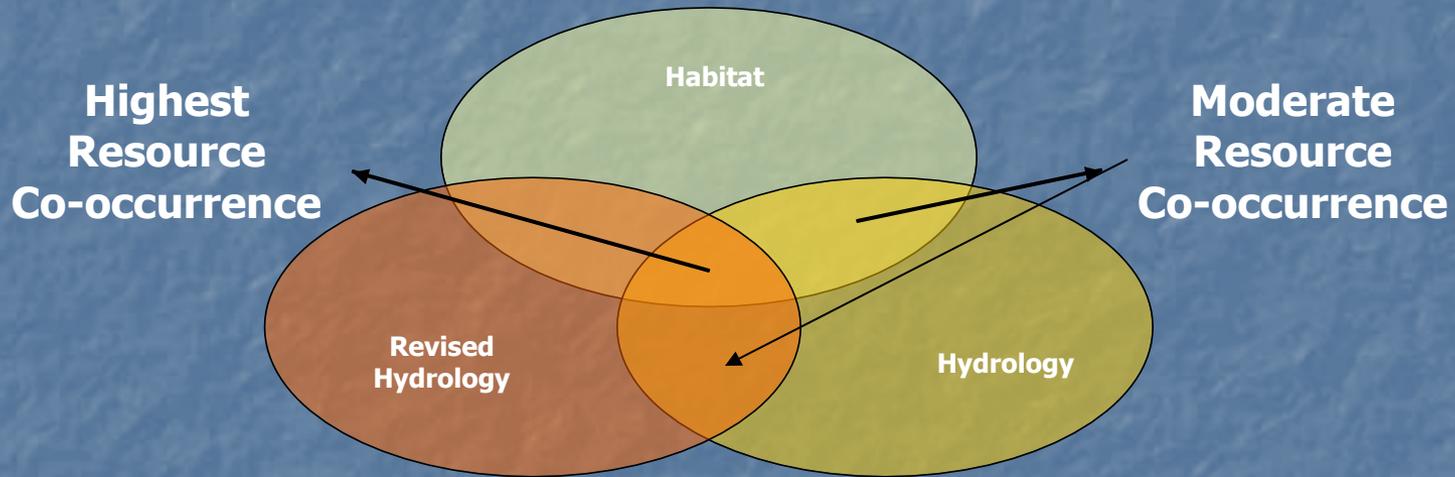
Mapping & Analysis



What is a Co-occurrence Map?

- A Co-occurrence map is created by layering a series of individual maps (i.e. datasets) on top of one another to create a graduated snapshot of the region.
- The end-product is a map that uses graduated colors to illustrate where the areas of highest quality waters, wetlands, and uplands are located within the watershed.

Co-occurrence Map Layers



- The final map uses graduated colors to show where the highest quality waters, wetlands, and uplands are located.

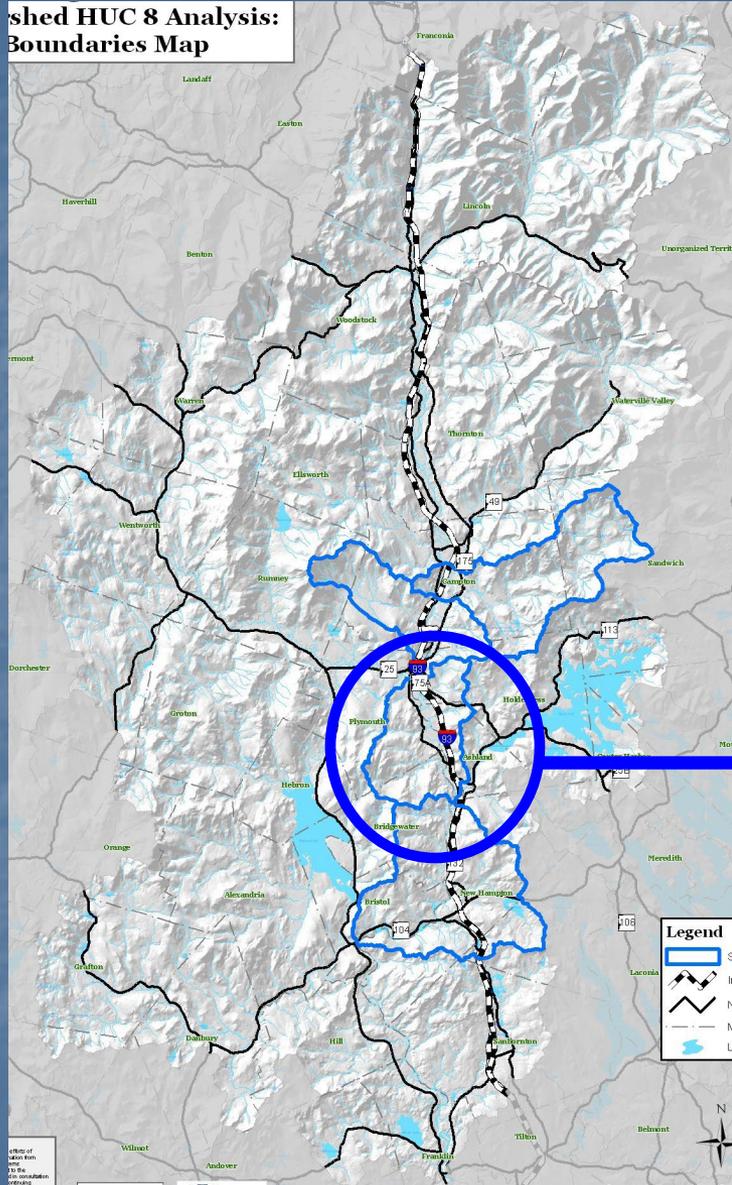
Why Make a Co-occurrence Map?

- Foundation of:
 - Conservation Planning
 - Watershed Management Planning
 - Pemigewasset River Corridor Planning
- In-Lieu Fee Program
- Snapshot of current conditions

Definitions

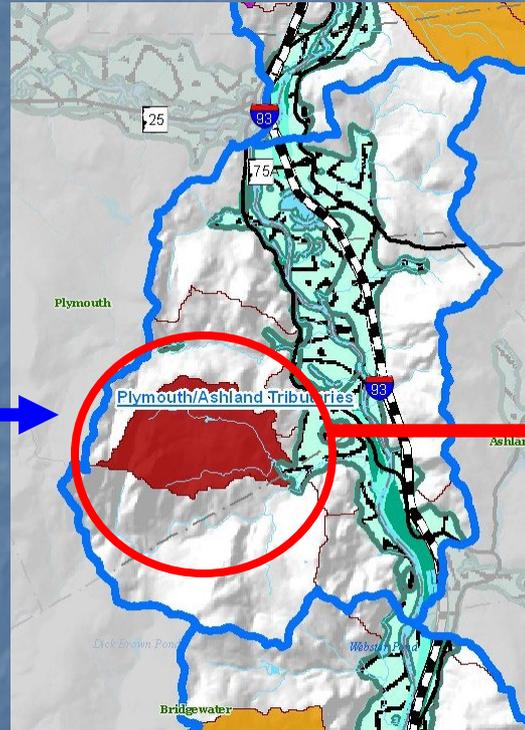
- Watershed – drainage system based on geographic area
- Subwatershed – drainage system based on tributary or river segment
- Catchment – drainage system for small surface stream or body of water

**shed HUC 8 Analysis:
Boundaries Map**



HUC 8 Watershed

Watershed System



HUC 12
subwatershed



Catchment

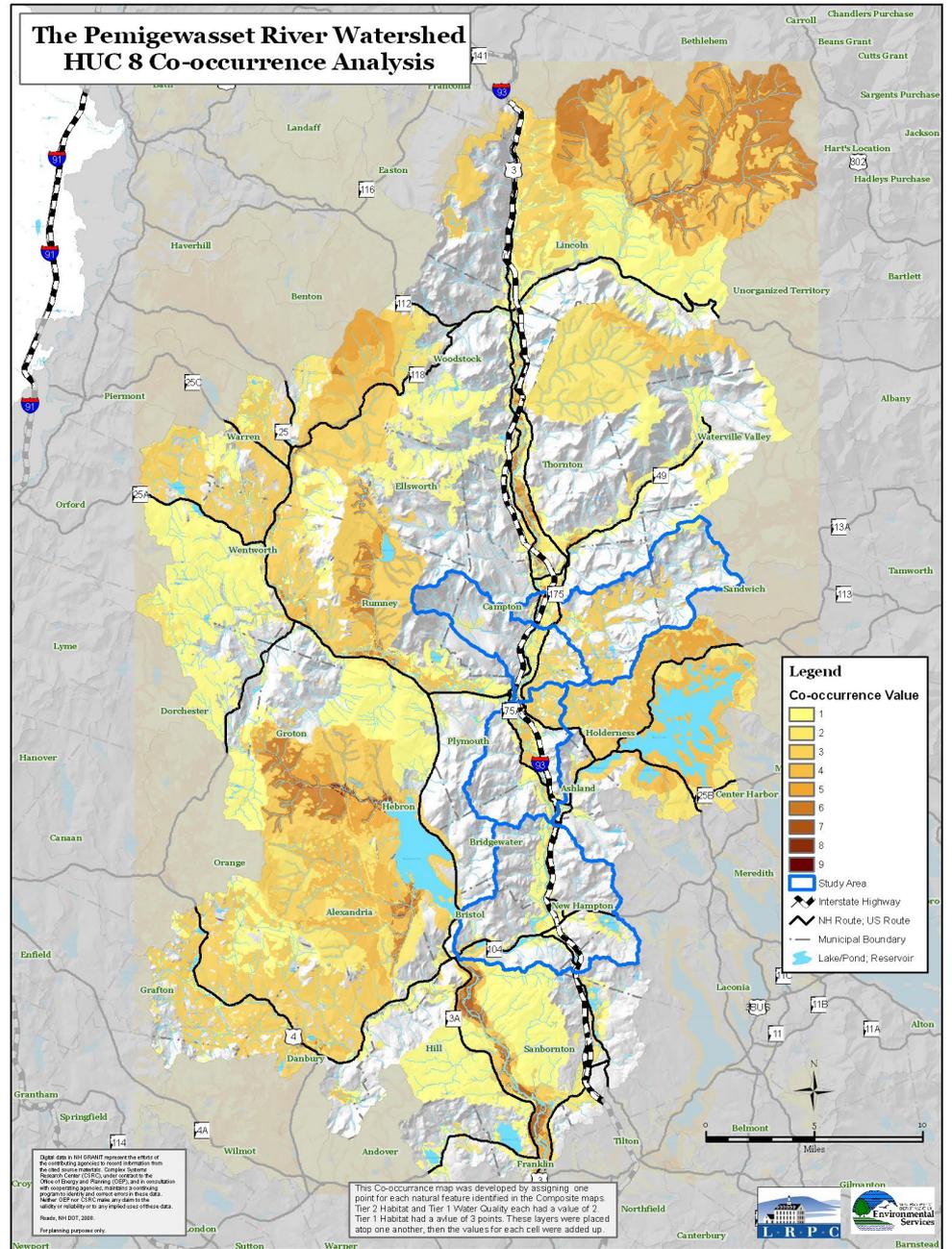
Co-occurrence Map Layers

- Habitat Composite – Wildlife Action Plan
- Hydrology Composite
 - Aquifer/Ground water
 - Surface Water
- Supplementary Layers
 - Impaired Water Bodies (2008 NHDES 303d List)
 - Wellhead Protection Areas
 - Conservation Lands

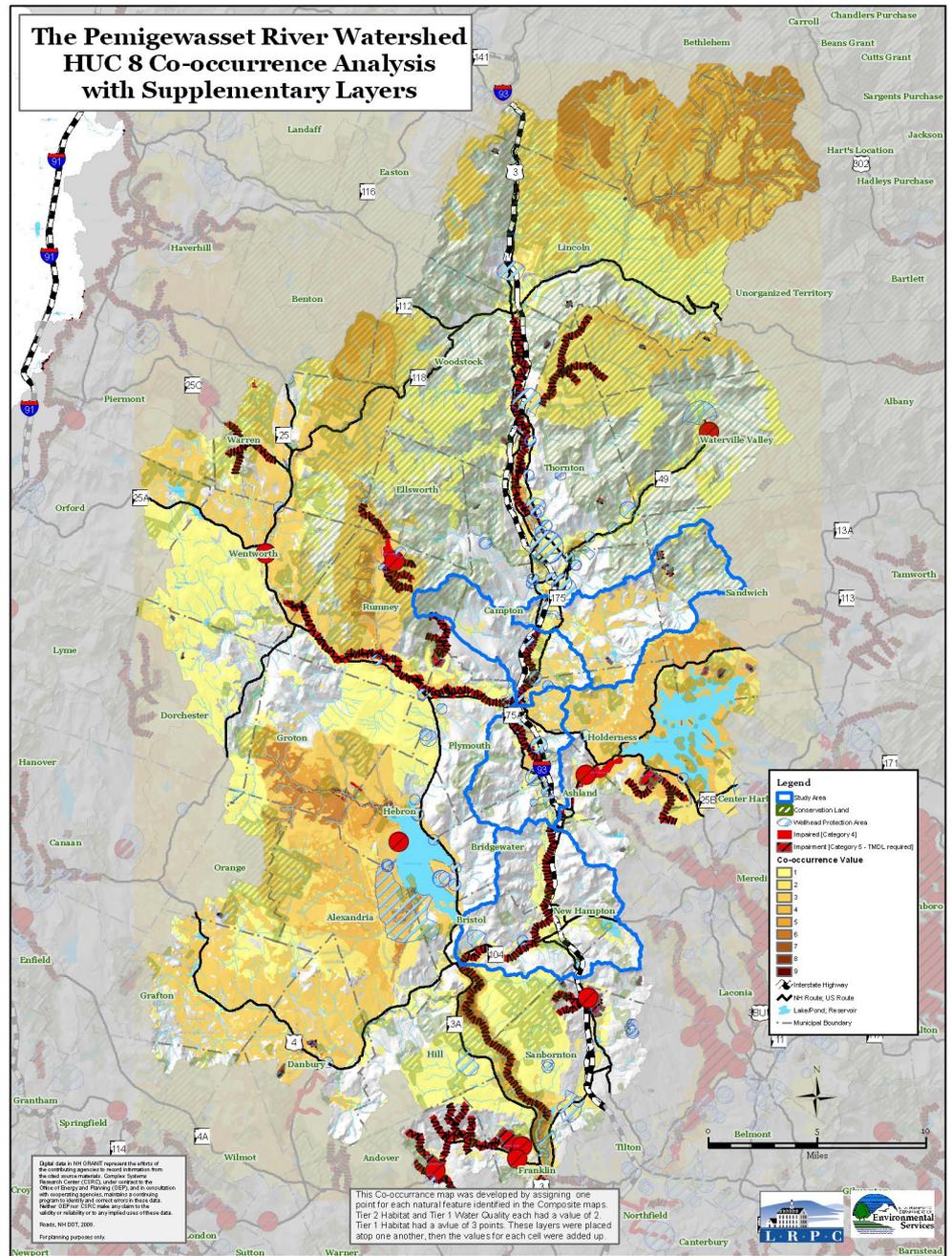
Pemigewasset Co-occurrence Map

- Point System = 1 (least) – 9 (most)
- Map Layers
 - Habitat Composite – 4 point max
 - Hydrology Composite – 5 point max
 - Supplementary Layers

Pemi Co-occurrence Map

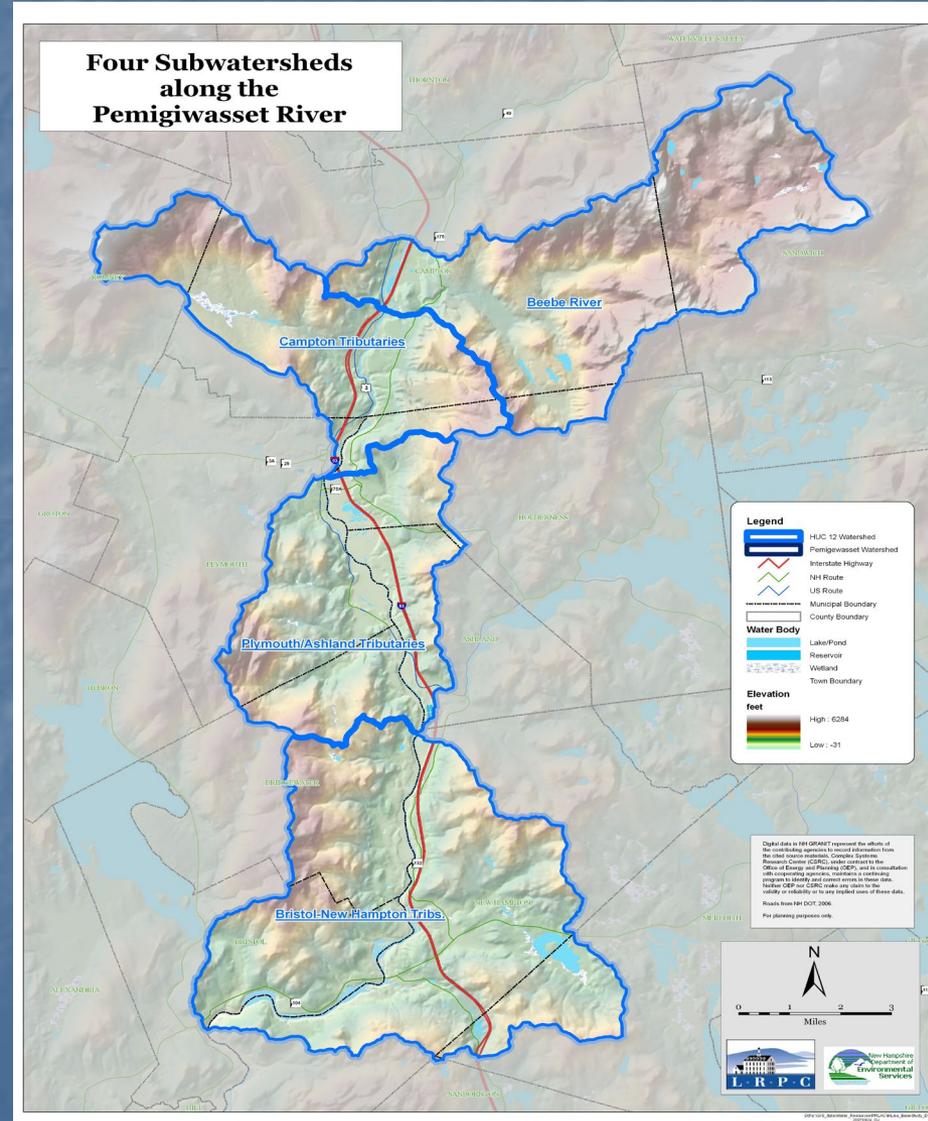


...with Supplementary Layer



Study Area

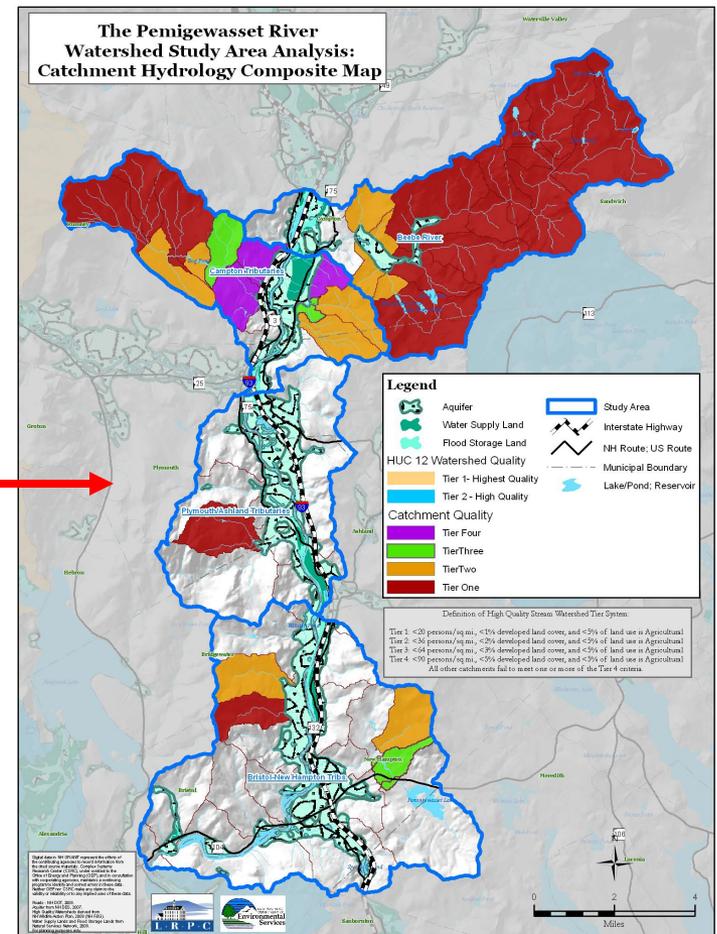
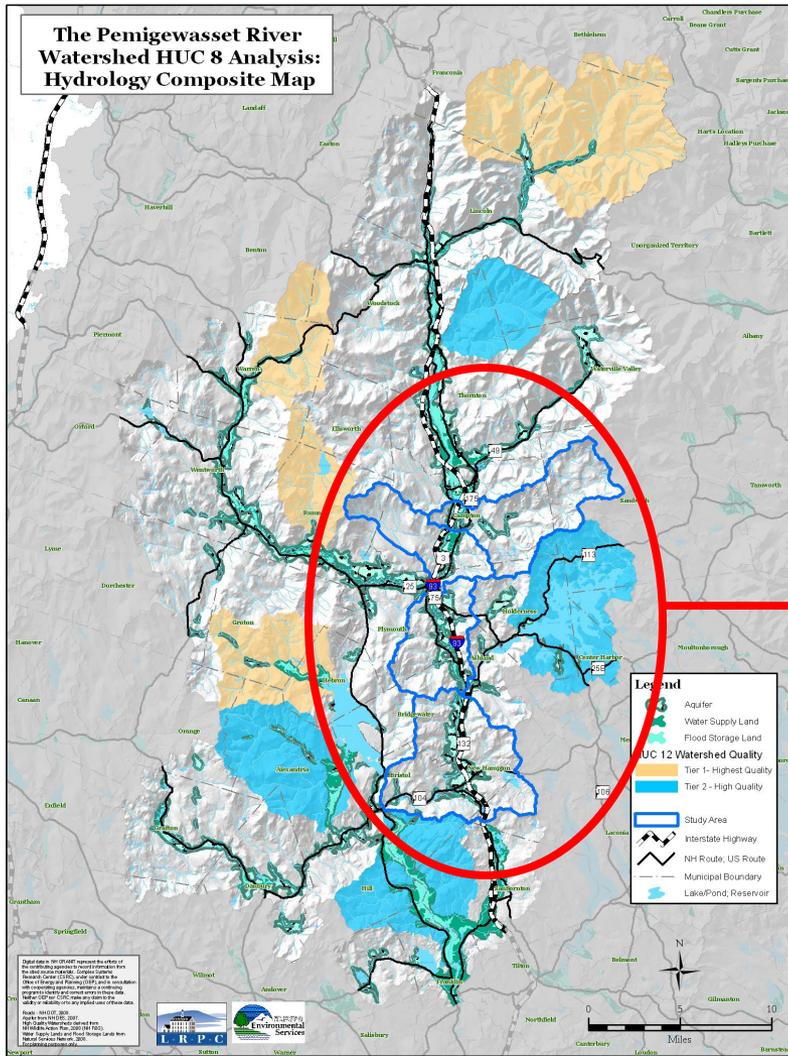
- Four HUC 12 subwatersheds
- Beebe River
- Campton Tributaries
- Plymouth/Ashland Tributaries
- Bristol/New Hampton Tributaries



Study Area Co-occurrence Map

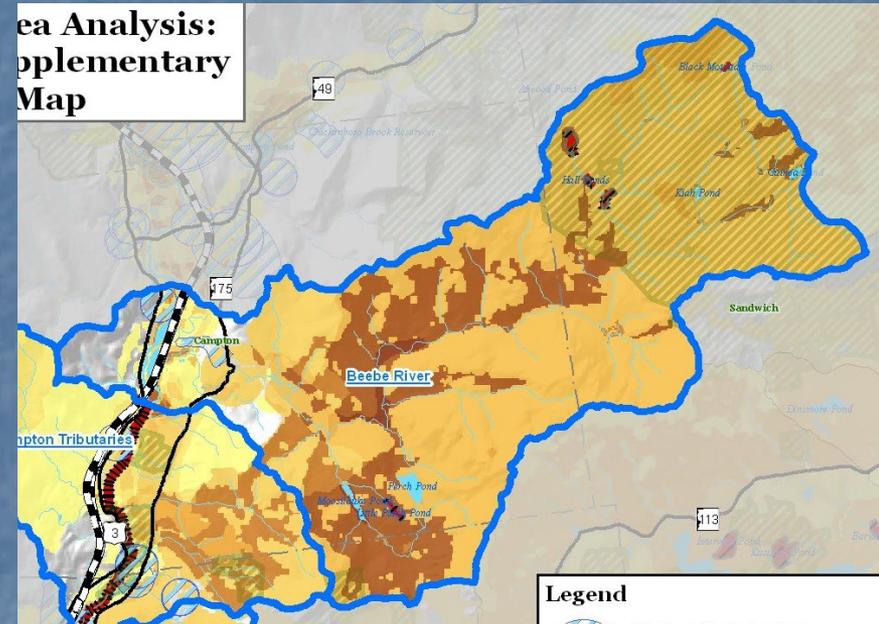
- Point System = 1 (least) – 13 (most)
- Map Layers
 - Habitat Composite – 4 point max
 - Hydrology Composite – 5 point max
 - Revised Hydrology Composite – 4 point max
 - Supplementary Layers

Revised Hydrology

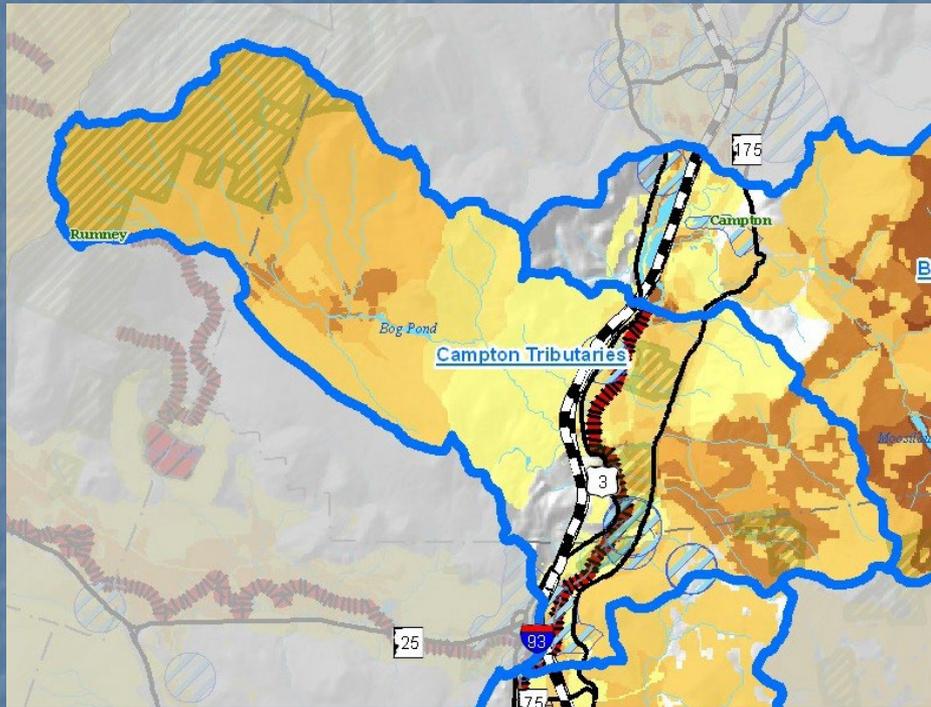


Beebe River

- Most High Quality Areas
- Most Conservation Land

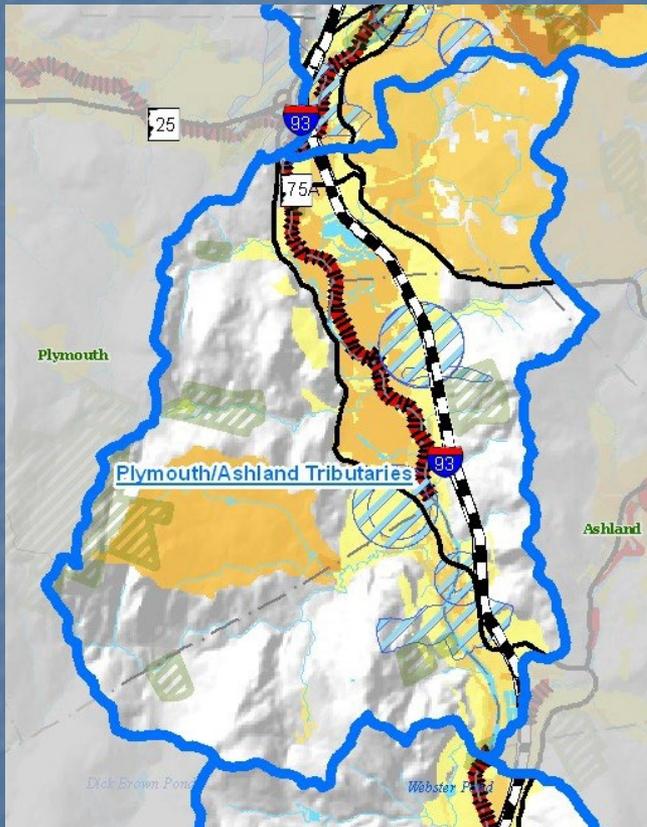


Campton Tributary



- Mostly moderate to high quality areas

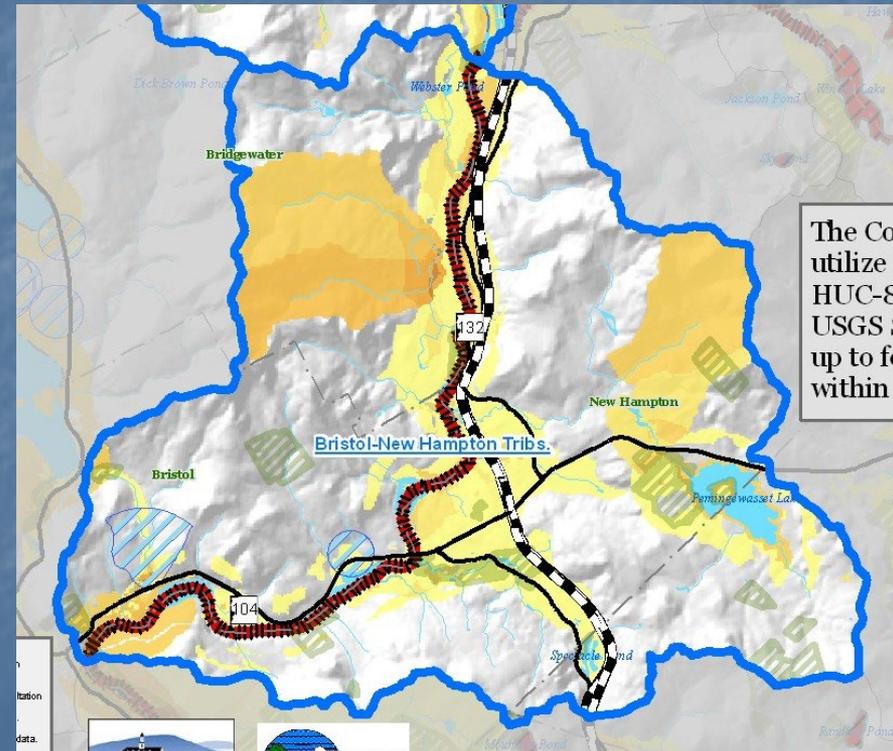
Plymouth/Ashland Tributaries



- Moderate Quality Areas:
 - Glove Hollow Brook catchment
 - Pemi Corridor
 - Un-named brook/pond

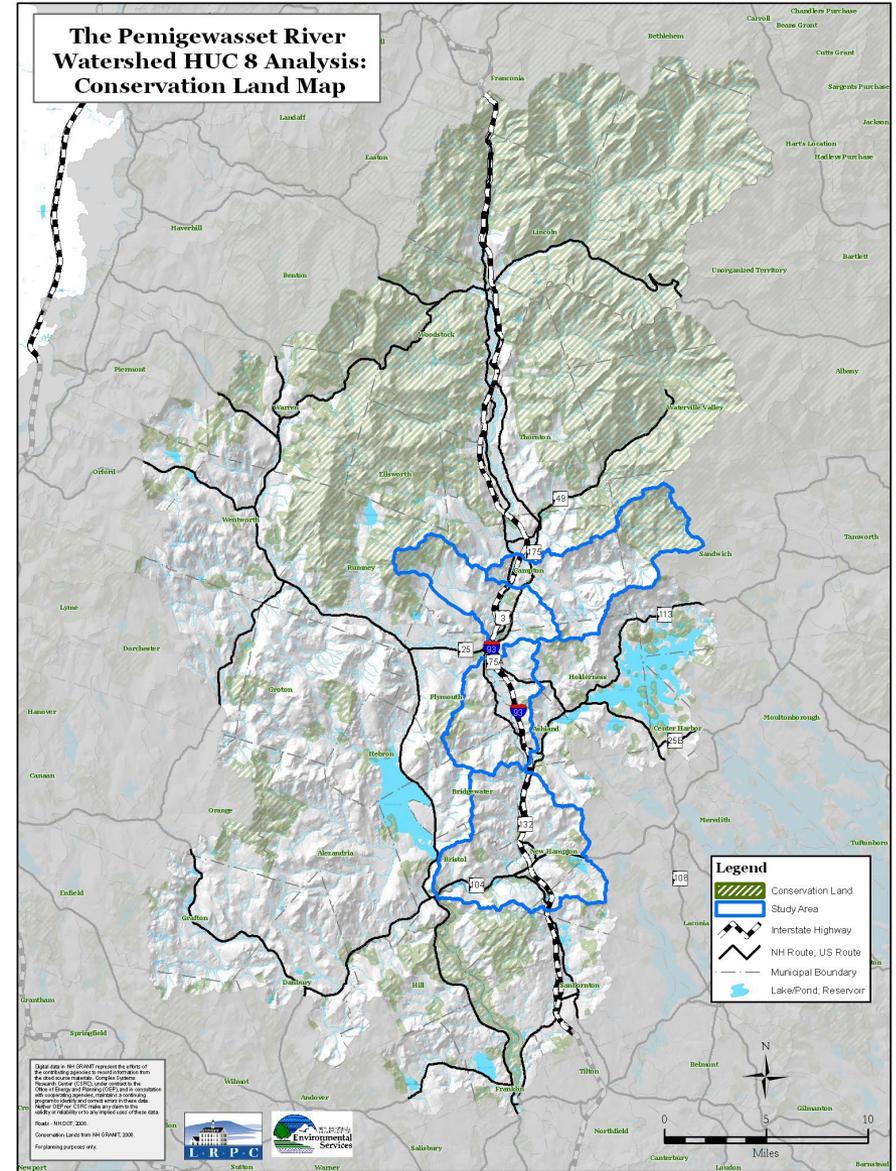
Bristol/New Hampton Tributaries

- Many development pressures
- Little conservation land
- Moderate Quality Areas:
 - Fogg Brook Catchment
- Low – Moderate Quality Areas:
 - Pemi River Corridor
 - Pemi Lake
 - Ayers Island
 - Woodman Brook Catchment



Status of Land Conservation

- Pemigewasset Watershed
 - 40% Conserved Lands
- Study Area
 - 14% Conserved Lands



In-Lieu Fee Program / Conservation Planning Recommendations

- Areas to Conserve/Restore –
 - High co-occurrence areas
 - Improve connectivity between areas of co-occurrence and conserved land
 - Areas of co-occurrence proximate to development pressure

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