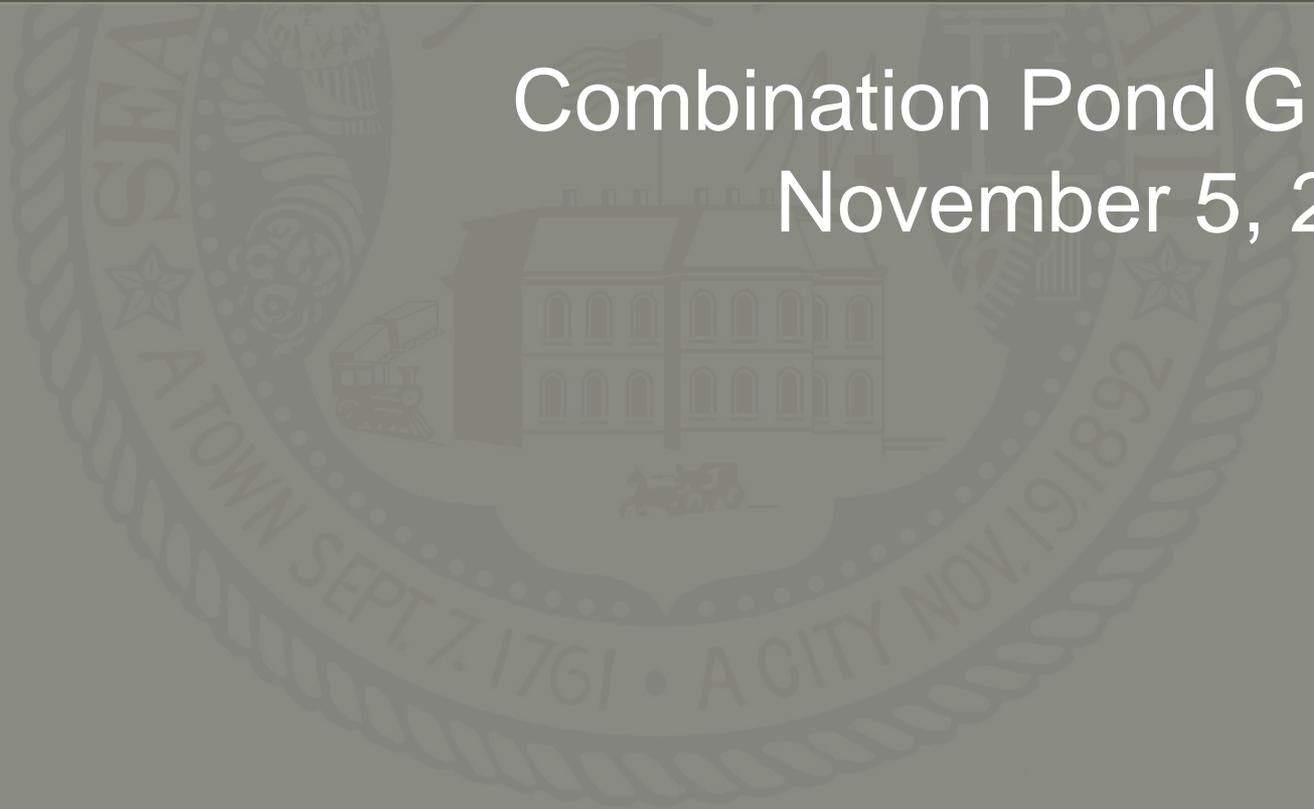


Moon Brook Watershed

Combination Pond Group
November 5, 2013





Combination Pond

Is on Moon Brook

Moon Brook Watershed



- 1,800 acres within the City of Rutland
- 40% of the City of Rutland
- Includes Mussey and two other brooks
- Impaired reach (red) is Moon Brook only, Combination Pond outfall to Otter Creek

Moon Brook Timeline



Settlement Agreement

- State is required to:

- Cooperate with third party review; pay for half
- Suspend MS4 requirements for City
- Seek suspension of appeal deadlines for EPA
- Provide technical assistance for dam removal and site restoration
- Assist the City to engage with neighbors and others throughout the process

- City is required to:

- Cooperate with third party review; pay for half
- Withdraw appeal without prejudice
- Implement six minimum SW control measures
- Continue ongoing SW management efforts
- Plan for and bring about removal of dam(s) by 10/01/2017
- Engage with neighbors and others throughout the process

Vermont Water Quality Standards

- The Fed. Clean Water Act requires States to set minimum quality requirements.
- Water Quality Standards consist of:
 - Uses
 - Aquatic life, swimming, boating, drinking, fish consumption
 - Water Quality Classes
 - Groupings of waters with the same goals
 - Water Quality Criteria
 - Numeric “not to exceed” values

Vermont Water Quality Standards

- When Criteria are not met, surface water is identified as “impaired.”
- CWA and VT Law requires that impairments be cleaned up using a pollution load allocation process known as a TMDL.
- The TMDL sets the maximum allowable levels of pollutants that may enter a surface water while maintaining that waterbody in compliance with criteria.

Biological Indicators

- VT has a scientifically based, nationally recognized biological criteria program.
- Measures Aquatic Life Use directly using both aquatic insects and non-game fish.

• Sensitive-rare taxa



Pteronarcys



Slimy Sculpin

• Sensitive-ubiquitous



Stenonema



Brook Trout

• Taxa of intermediate tolerance



Neureclipsis

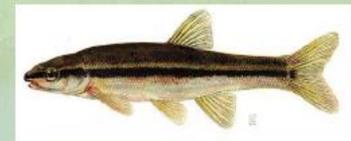


Common Shiner

• Tolerant taxa



Chironomus



Blacknose Dace

Third Party Review

• Questions to be addressed:

- Whether Moon Brook is impaired
- The cause of the impairment, if any
- Whether Mussey Brook and the lower reach of Moon Brook have been properly assessed, and,
- If not, what biological criteria should used, and,
- Whether Mussey and the lower reach of Moon Brook meet those criteria.

Possible Outcomes

- City & State agree Moon Brook is not impaired
 - RESULT: Dam safety issue must be addressed but water quality concerns are resolved
- City & State agree Moon Brook is impaired for stormwater
 - RESULT: MS4 requirements apply triggering substantial public and private investments; serious regulation of land use activity in 40% of City
- City & State agree Moon Brook is impaired due to temperature
 - RESULT: MS4 requirements go away; new remediation plan must be developed; public investment to implement plan will be required
- City & State disagree
 - RESULT: Litigation would likely resume; City best management efforts would continue until litigation is resolved



Existing Condition



Upstream simulation

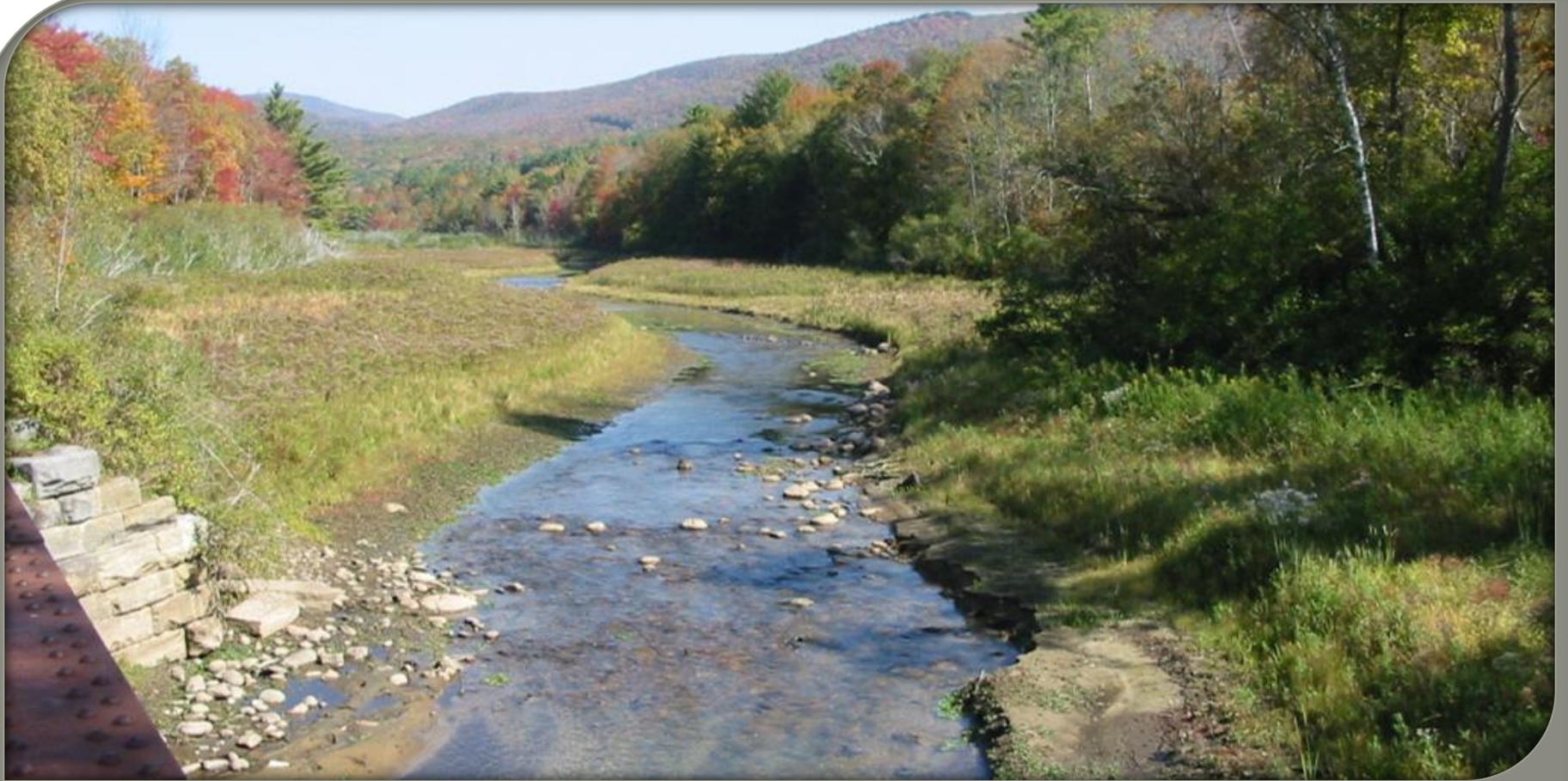
Photo-simulation

Dufresne Dam Removal



Dufresne Dam Removal – Battenkill River

To improve water quality on the Battenkill the Town of Manchester, ANR and members of the community engaged in a multi-year process to envision the future of the site.



Months after dam removal

In only a few months the site is well on its way to restoration of the natural stream course.

Next Steps

- A wide range of outcomes remain possible
- ANR and the City of Rutland desire:
 1. All Rutland City waters to comply with Vermont Water Quality Standards
 2. Liability concerns about Combination Pond Dam addressed
 3. The engagement of all parties affected by any change to ensure that changes bring desirable aesthetics and amenities
 4. If possible, the support of all parties for the final result

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