

Morrisville Hydro Relicensing

Presentation for
Fish, Wildlife and Water Resources
Committee

February 27, 2014

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Agenda

The purpose of the presentation is for MWL to present issues related to the relicensing of its hydro project.

- Overview of MWL
- Overview of MWL Hydro Facilities and Improvements
- Overview of Relicensing Process
- Relicensing Issues
- Impact on Morrisville
- Concluding Remarks

Overview of Morrisville

General Information

- Municipal (not for profit) providing electric, water & sewer services
- 4,000 electric customers in 7 Towns
- Load - 9,000 kW demand (summer peaking)
- Load - 50,000,000 kWhs of energy sales
- Wholly owed local hydro facilities

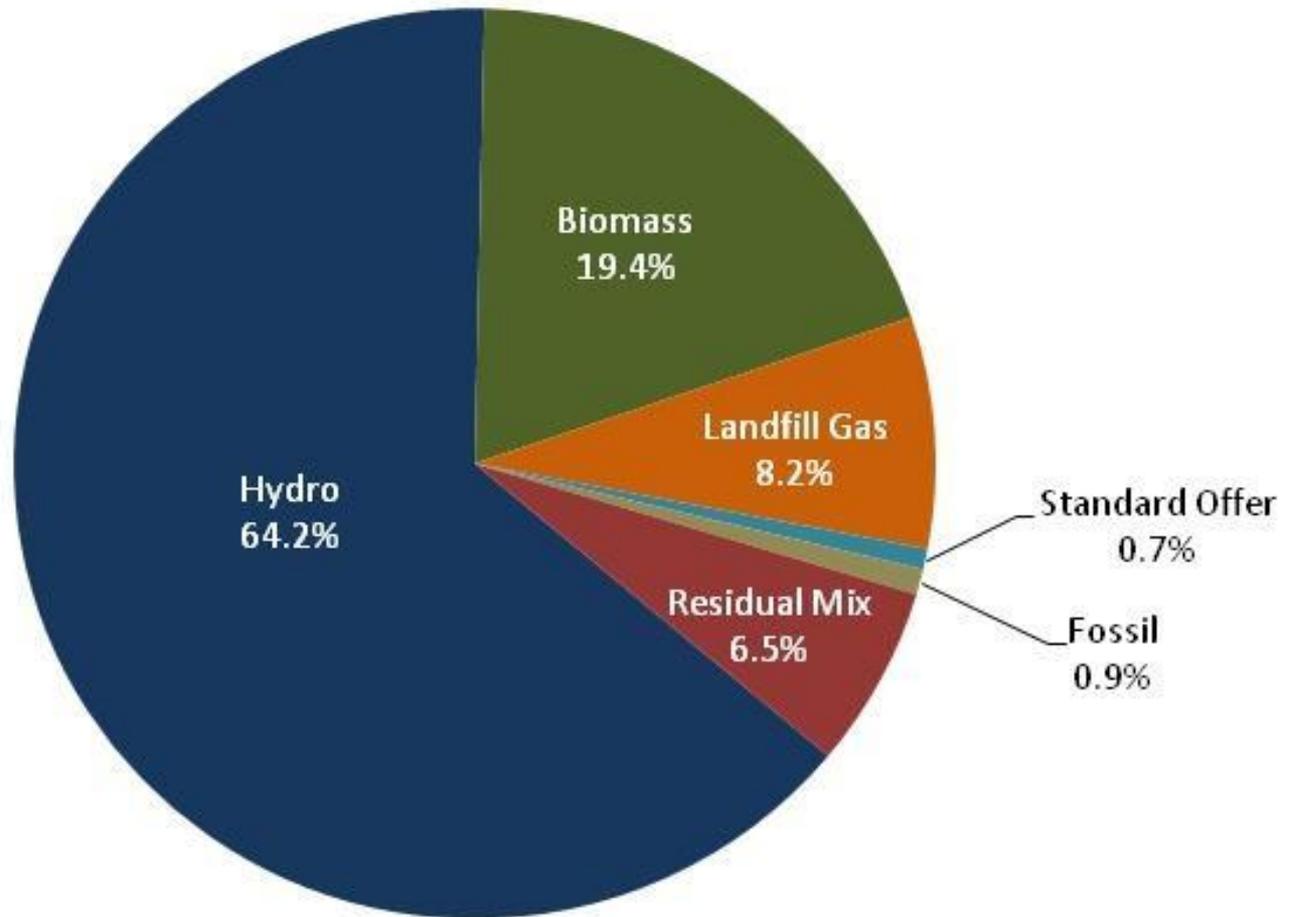
Overview of Morrisville (cont.)

Morrisville's Power Supply Goal

- Meet as much of our customer's electrical needs as possible from local resources
- Meet as much of our customer's electrical needs as possible from green renewable resources.
- Reduce dependency on fossil fuels
- Reduce carbon footprint

Overview of Morrisville (cont.)

Morrisville 2013 Fuel Mix



Overview of Morrisville (cont.)

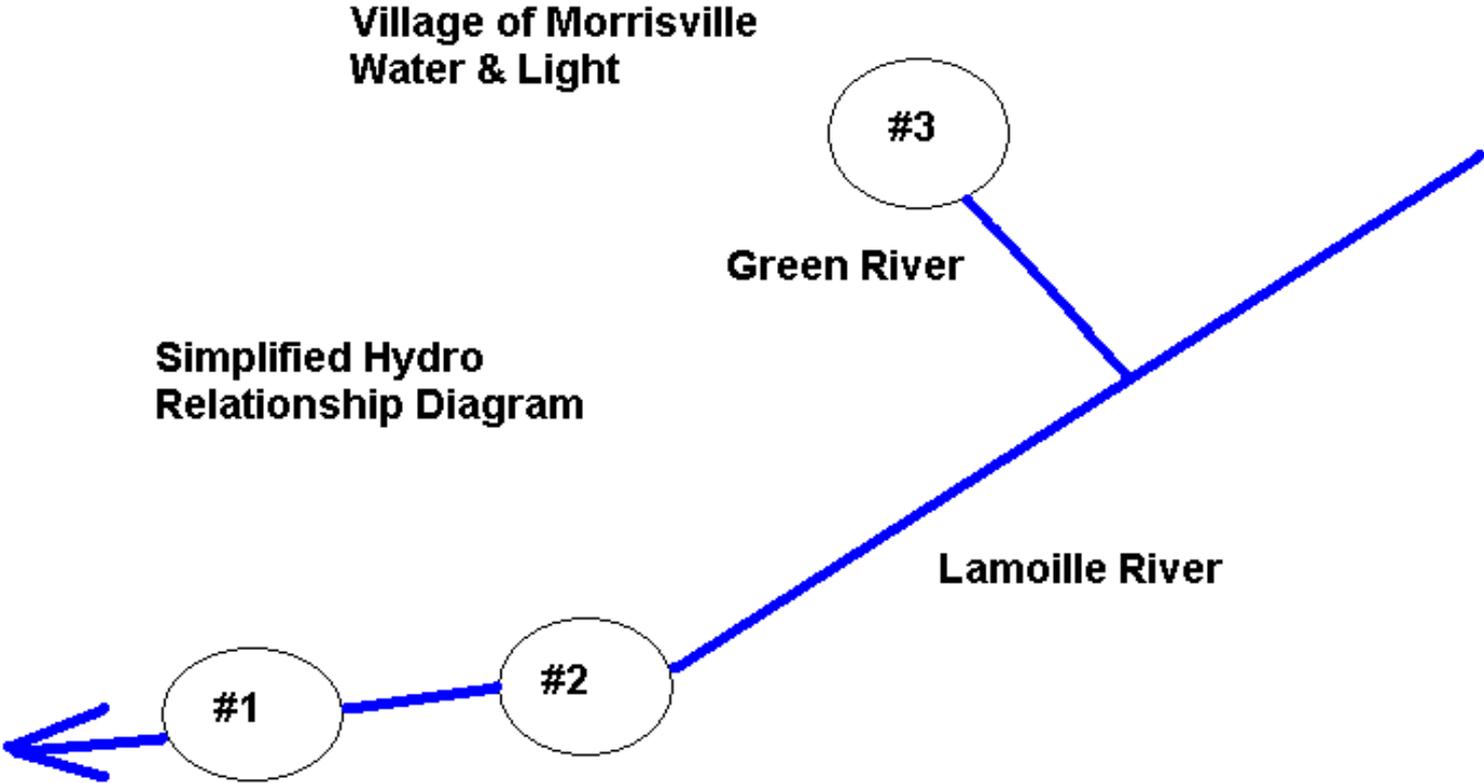
Environmental Record

- MWL sold the State the 5,113 acres around the Green River reservoir for preservation at a reasonable amount of \$490 per acre.
- MWL sold the State its Zack Woods property for conservation. The proceeds from the sale were reinvested in our hydro units.
- MWL has agreed to limit fluctuations at its Green River dam for the loons and recreational use of the reservoir.

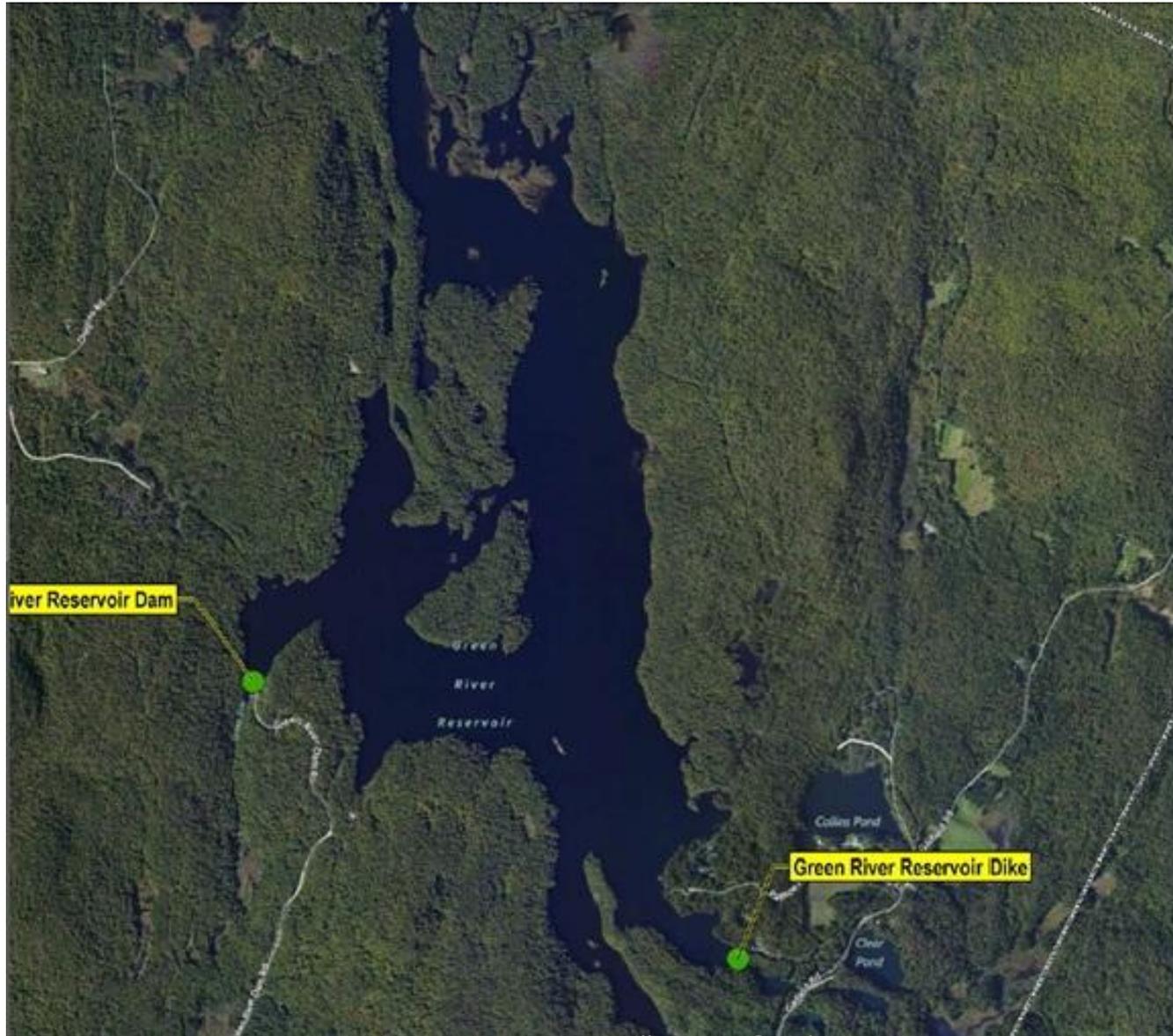
Morrisville Hydro Data

- 3 Plants (Green River, Morrisville and Cadys Falls)
- 6 Turbines (2 at each plant)
- Hydro - 5,100 kW capacity
- Hydro – 11,000,000 kWhs energy production (20% of energy sales)

Morrisville Hydro Facilities



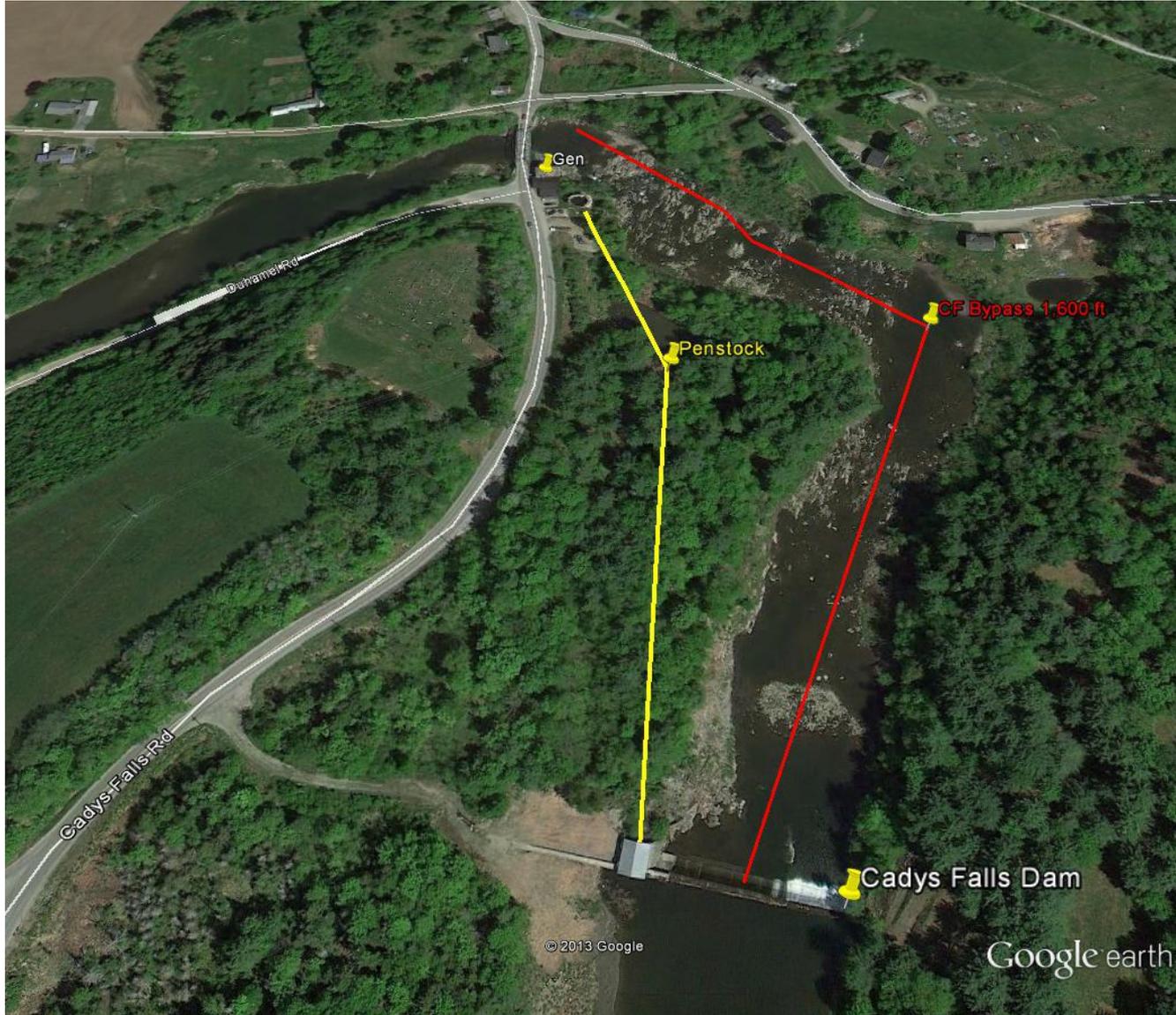
Green River Hydro



Morrisville Hydro



Cadys Falls Hydro



Morrisville Hydro Data

Improvements

- Morrisville invested over \$2,000,000 in capital projects in 2011 and 2012 to improve the operation and increase the output of its hydro plants.
 - new headgates,
 - new surge tank gates,
 - the rebuild of one turbine at Cadys Falls and
 - installation of a crest gate to replace wooden flashboards on the Morrisville dam.
- Morrisville borrowed monies to complete these projects.
- The revenues from increased generation from these improvements is needed to pay off the debt.

Hydro Relicensing

- Morrisville is in the process of relicensing its hydro generation project.
- The relicensing process started in 2011.
- Our current license expires in 2015.
- We have spent nearly \$450,000 to date on various relicensing studies.
- We are projecting to spend another \$100,000 in 2014.

Relicensing Issues

Morrisville is discussing the following concerns with the VANR staff

- Bypass Flows (Morrisville & Cadys Falls)
- Aesthetic Flows over dams (Morrisville & Cadys Falls)
- Drawdown Limits (Green River)

Impact on Morrisville

- Less Energy Generation
 - Upward pressure on electric rates
 - Longer payback on hydro improvements completed
 - Need to replace lost hydro energy from other sources

Concluding Remarks

Morrisville understands the importance of Vermont's Rivers Agency Procedures for Determining Acceptable Minimum Stream Flows (7/14/1993) Offer Some Important Points and Flexibility.

- to decrease Vermont's dependence on non-renewable energy sources
- Agency reserves the right to require, or to recommend to other regulatory bodies, maintenance of minimum low flows in excess of or less than fisheries requirements where specific facts of the proposed project clearly show such higher or lower flows are needed to properly balance the many competing water uses at the site consistent with applicable statutes or rules.
- Vermont rivers have served as a source for the production of hydroelectricity for over a century
- This minimum flow procedure makes a distinction between the river reach downstream of the project tailrace and the bypassed reach between the intake and the tailrace.
- Bypasses shall be analyzed case-by-case.
- In order to fulfill Agency responsibilities to strike a balance between competing water uses in the public interest, any deviations from minimum flow requirements as defined by the General Procedure will require an assessment of water and energy conservation alternatives.

Concluding Remarks (cont.)

- Morrisville will continue to meet and discuss its concerns with the ANR to arrive at an acceptable solution.