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GROUP

# MINE FALLS HYDROELECTRIC FACILITY

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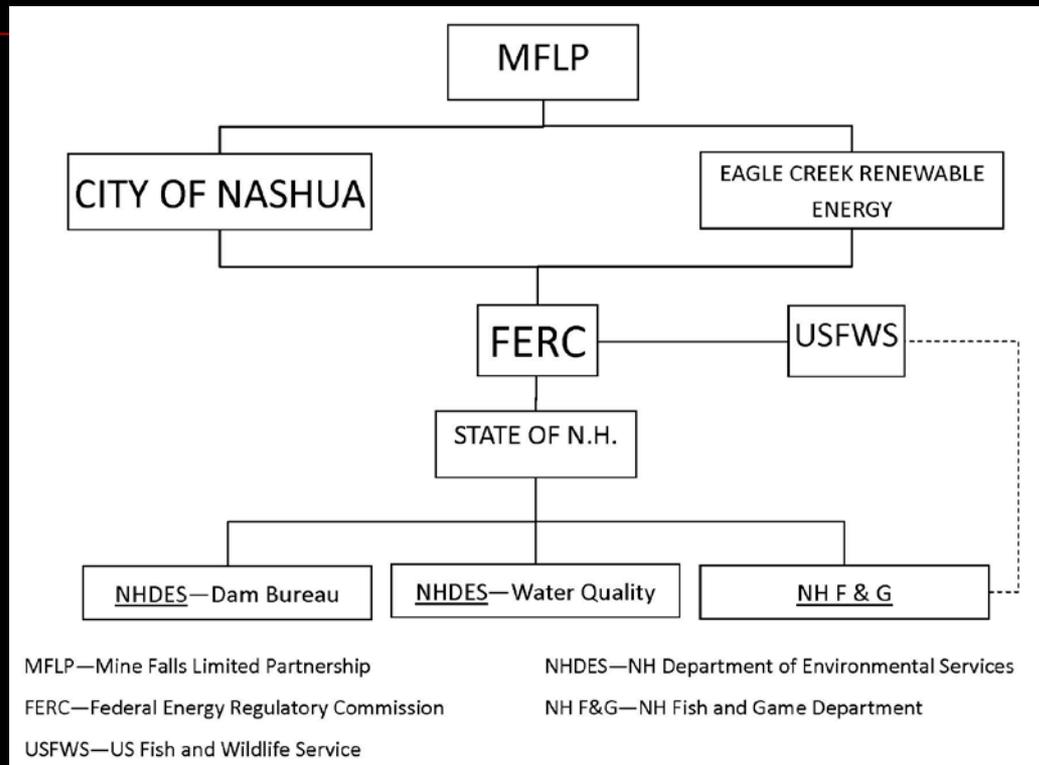
PRELIMINARY ASSESSMENT  
SEPTEMBER 14, 2015

# MINE FALLS HYDROELECTRIC FACILITY

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- Stakeholders
- Visual Tour/Condition
- Operations/Maintenance
- Performance
- Value
- Ownership Options

# MINE FALLS HYDROELECTRIC FACILITY



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## VISUAL TOUR



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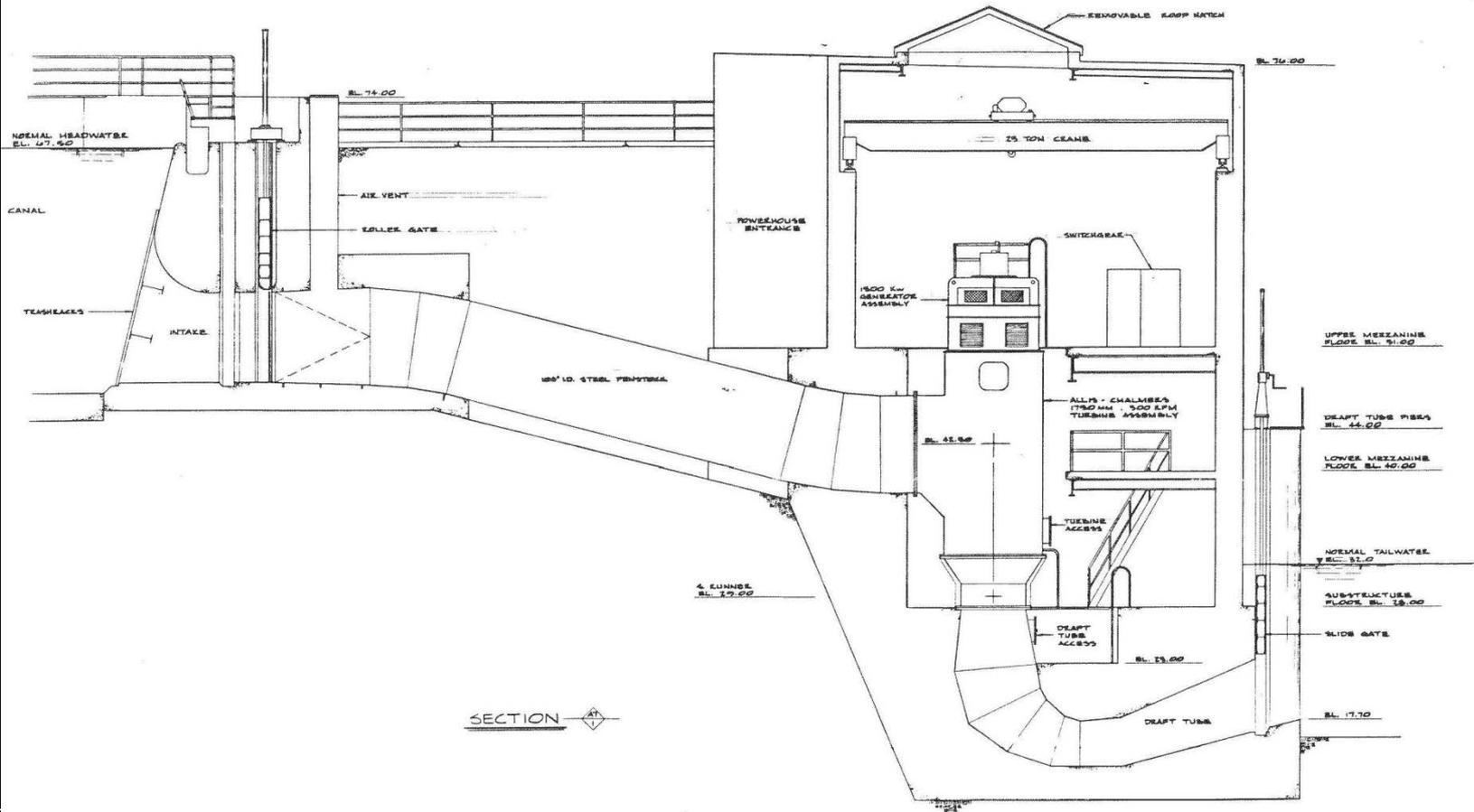
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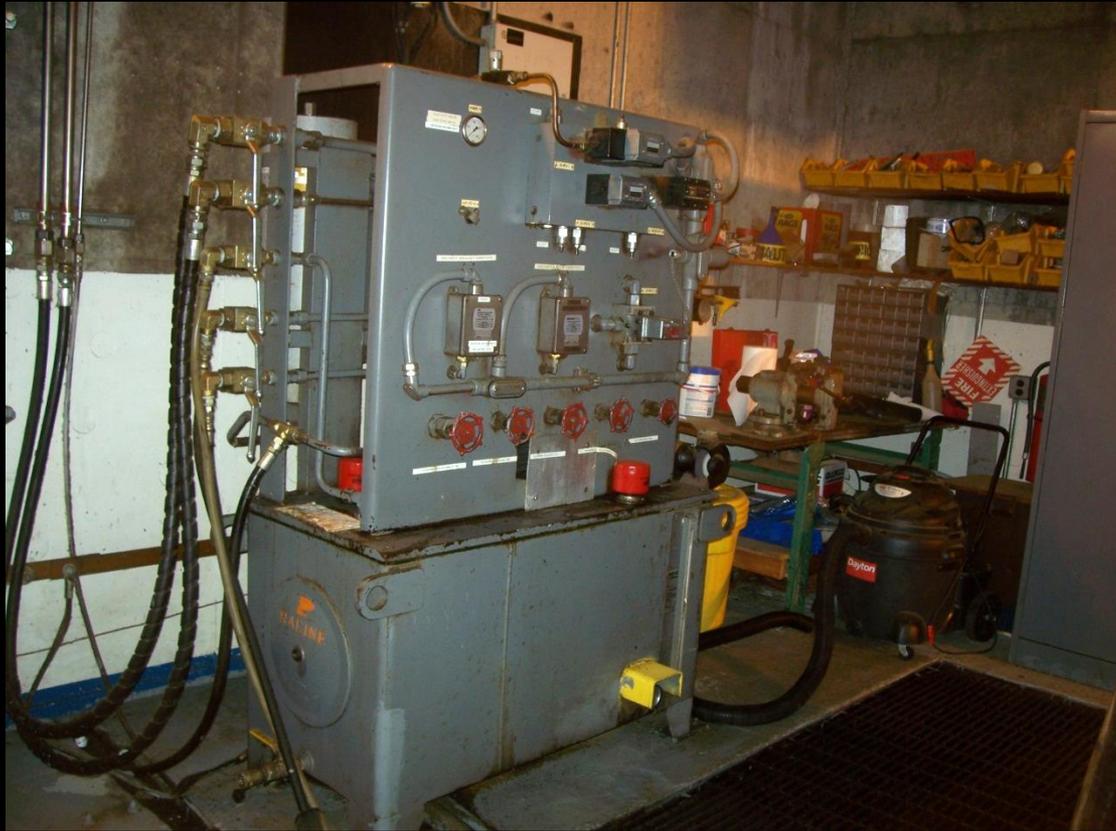
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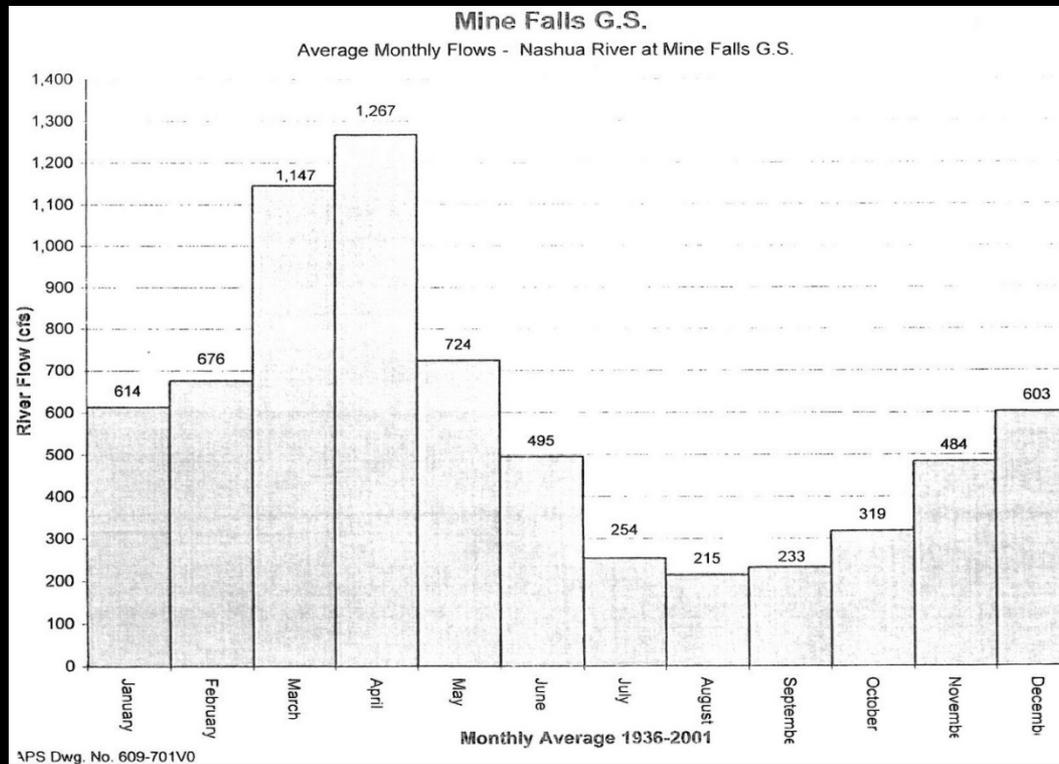
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## Operations & Maintenance

- Eagle Creek
  - Power Production
  - Records
  - FERC Liaison
- Run-of-River
- Plant Factor
  - 53% vs 42 – 48% (New England)
- Manual Control

# MINE FALLS HYDROELECTRIC FACILITY

## Average Monthly Flows @ Site



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## Performance

- Energy Generation/Year
  - @ Design – 12,563,000 kW-hr
  - Recent – 12,838,799 kW-hr
- Revenues/year
  - \$1,130,670 – 1985 – 2005
  - \$705,524 – 2005 – current
- Missing Generation
  - 3 - 5% Annually – leakage & equipment

# MINE FALLS HYDROELECTRIC FACILITY

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## Value

- Project Life
  - Existing & Future
- Lease Option Price
  - \$4,094,000 (1/2 original cost + 1/2 fish passage) (\$1,365/kW)
- Comparable Market Value
  - \$2,100 - \$4,300/kW
- Short- & Long-Term Costs
  - \$2,065,000

# MINE FALLS HYDROELECTRIC FACILITY

Type	Item	Cost
ME	TG HPUs – replace	\$150,000
ME	Drain pump – redundant system	\$50,000
ME	Turbine(s) – overhaul	\$200,000
ME	Turbine Blade Positioning System – recondition	\$100,000
ME	Ancillary – filters, crane motors, etc	\$100,000
EE	Generator – refurbishment	\$300,000
EE	New Station Battery System	\$30,000
EE	PSNH/Eversource – New Interconnection Upgrade	\$30,000
EE	Transformer – rehabilitation	\$80,000
EE	Controls automation	\$200,000
EE	Miscellaneous	\$50,000
Civil	Fish Passage Access way	\$75,000
Civil	Intake gates/trashrack – rehabilitation	\$50,000
Civil	Stoplog/gate replacement	\$200,000
Civil	Roof repair/EE conduit	\$50,000
Civil	FERC Re-License	\$400,000
	Total	\$2,065,000



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## FUTURE OPTIONS

- Option 1: City Activates Option to Purchase in December 2015 window
- City Could operate the facility and use to offset City electric use
  - City could operate the facility and sell the energy
  - City could hire an operator to run the facility and collect a % of revenue
  - City could “flip” the facility and sell it at a profit
- Option 2: City does not activate option to Purchase in December 2015 window
- Existing arrangement with MFLP Lease continues until 2024
  - City begins relicensing process in 2018 to receive license by 2023
  - City will own the facility in 2024