Millinocket/Quakish Dam (Penobscot Mills Project) FERC No. P-2458 : RAW DECISION MATRIX (cell values are data values and have not been changed in any way)

Decision Criteria	Keep and Maintain Dam	Improve Fish Passage	Improve Hydropower Capacity	Improve Hydro AND Fish Passage	Remove Dam
Sea-run fish habitat area (100 square m)	0	0-6	0	0-6	0-12
River recreation area (square km)	0	0	0	0	0 -16
Reservoir storage (100,000 acre feet)	0.1	0.1	0.1	0.1	0.00
Annuitized project costs ($2018 thousands/yr)	1,657	1,970	1,657	1,970	215
Breach Damage Potential	1	1	1	1	0
Number of Properties Impacted	0	0	0	0	9
Annual Electricity Generation (GWh/yr)*	203	203	203	203	0
CO2 Emissions Reduction (kilotonne/yr)	26.7	26.7	26.7	26.7	0
Indigenous Lifeways	1.0	4.5	2.0	3.9	5.0
Industrial Historical Value	2.5	2.9	3.5	3.1	3.5
Community Identity	1.0	3.8	3.0	3.6	5.0
Aesthetic Value	2.5	3.2	3.3	3.6	3.5
Public Health	2.5	4.0	4.0	4.0	4.5
Social and Environmental Justice	1.0	4.4	2.0	3.8	5.0

*1 GWh = 1000 MWh, so to convert from GWh to MWh, multiply the value by 1,000. To convert from MWh to GWh, divide by 1,000.

Developed by Emma Fox, Sharon Klein, and Sam Roy of UMaine, with input from stakeholders active in dam decision-making in Maine.

East Millinocket Dam (Penobscot Mills Project) FERC No. P-2458

Decision Criteria	Keep and Maintain Dam	Improve Fish Passage	Improve Hydropower Capacity	Improve Hydro AND Fish Passage	Remove Dam
Sea-run fish habitat area (100 square m)	0	0-18	0	0-18	4-37
River recreation area (square km)	0	0	0	0	0-16
Reservoir storage (100,000 acre feet)	0	0	0	0	0
Annuitized project costs ($2018 thousands/yr)	406	471	1,897	1,962	168
Breach Damage Potential	1	1	1	1	0
Number of Properties Impacted	0	0	0	0	0
Annual Electricity Generation (GWh/yr)*	38	38	60	60	0
CO2 Emissions Reduction (kilotonne/yr)	6.8	6.8	10.8	10.8	0
Indigenous Lifeways	1.0	4.5	2.0	3.9	5.0
Industrial Historical Value	3.3	5.0	5.0	5.0	2.7
Community Identity	2.5	5.0	5.0	5.0	3.0
Aesthetic Value	2.7	5.0	5.0	5.0	3.3
Public Health	2.7	3.5	3.5	3.5	3.7
Social and Environmental Justice	1.0	4.4	2.0	3.8	5.0

*1 GWh = 1000 MWh, so to convert from GWh to MWh, multiply the value by 1,000. To convert from MWh to GWh, divide by 1,000.

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North Twin Dam (Penobscot Mills Project) FERC No. P-2458

Decision Criteria	Keep and Maintain Dam	Improve Fish Passage	Improve Hydropower Capacity	Improve Hydro AND Fish Passage	Remove Dam
Sea-run fish habitat area (100 square m)	0	0-826	0	0-826	0-1652
River recreation area (square km)	2	2	2	2	2 - 17
Reservoir storage (100,000 acre feet)	0.2	0.2	0.2	0.2	0.00
Annuitized project costs ($2018 thousands/yr)	403	467	1,880	1,945	212
Breach Damage Potential	2	2	2	2	0
Number of Properties Impacted	0	0	0	0	589
Annual Electricity Generation (GWh/yr)*	47	47	75	75	0
CO2 Emissions Reduction (kilotonne/yr)	8.5	8.5	13.4	13.4	0
Indigenous Lifeways	1.5	5.0	2.0	4.0	4.5
Industrial Historical Value	3.3	2.0	4.0	3.0	2.7
Community Identity	3.0	4.0	3.0	4.0	3.0
Aesthetic Value	1.7	4.0	3.0	3.0	4.3
Public Health	2.5	4.0	4.0	3.5	4.5
Social and Environmental Justice	1.0	5.0	2.0	4.0	5.0

*1 GWh = 1000 MWh, so to convert from GWh to MWh, multiply the value by 1,000. To convert from MWh to GWh, divide by 1,000.

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Dolby Dam (Penobscot Mills Project) FERC No. P-2458

Decision Criteria	Keep and Maintain Dam	Improve Fish Passage	Improve Hydropower Capacity	Improve Hydro AND Fish Passage	Remove Dam
Sea-run fish habitat area (100 square m)	0	0-295	0	0-295	0-590
River recreation area (square km)	0	0	0	0	0 - 16
Reservoir storage (100,000 acre feet)	0.3	0.3	0.3	0.3	0.00
Annuitized project costs ($2018 thousands/yr)	1,229	1,415	1,229	1,415	319
Breach Damage Potential	2	2	2	2	0
Number of Properties Impacted	0	0	0	0	25
Annual Electricity Generation (GWh/yr)*	98	98	98	98	0
CO2 Emissions Reduction (kilotonne/yr)	12.9	12.9	12.9	12.9	0
Indigenous Lifeways	1.5	5.0	3.0	4.0	4.5
Industrial Historical Value	3.0	3.0	3.5	3.5	3.0
Community Identity	2.7	4.0	3.5	4.0	3.0
Aesthetic Value	2.8	4.5	4.0	4.5	3.3
Public Health	2.3	3.7	3.0	3.3	4.3
Social and Environmental Justice	1.5	4.0	3.0	3.0	4.5

*1 GWh = 1000 MWh, so to convert from GWh to MWh, multiply the value by 1,000. To convert from MWh to GWh, divide by 1,000.

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Millinocket Lake Dam (Penobscot Mills Project) FERC No. P-2458

Decision Criteria	Keep and Maintain Dam	Improve Fish Passage	Improve Hydropower Capacity	Improve Hydro AND Fish Passage	Remove Dam
Sea-run fish habitat area (100 square m)	0	0-275	0	0-275	0-550
River recreation area (square km)	0	0	0	0	0
Reservoir storage (100,000 acre feet)	0.4	0.4	0.4	0.4	0
Annuitized project costs ($2018 thousands/yr)	1	7	102	108	62
Breach Damage Potential	2	2	2	2	0
Number of Properties Impacted	0	0	0	0	119
Annual Electricity Generation (GWh/yr)*	0	0	1	1	0
CO2 Emissions Reduction (kilotonne/yr)	0	0	0.1	0.1	0
Indigenous Lifeways	1.0	4.5	2.0	3.9	5.0
Industrial Historical Value	2.0	2.9	3.5	3.1	3.5
Community Identity	1.0	3.8	3.0	3.6	5.0
Aesthetic Value	2.5	4.0	3.0	4.0	3.5
Public Health	2.5	4.0	4.0	4.0	4.5
Social and Environmental Justice	1.0	4.4	2.0	3.8	5.0

*1 GWh = 1000 MWh, so to convert from GWh to MWh, multiply the value by 1,000. To convert from MWh to GWh, divide by 1,000.

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