DRAFT MCDA Decision Criteria for participatory stakeholder workshop Fall 2019

West Enfield Dam FERC No. P-2600

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)	24,200	55,480	24,200	55,480	86,750
River recreation area (square km)	12	12	12	12	12
Reservoir storage (100,000 acre feet)	0	0	0	0	0
Annuitized project costs ($2018 thousands/yr)	949	1,067	949	1,067	179
Breach Damage Potential	3	3	3	3	0
Number of Properties Impacted	0	0	0	0	5
Annual Electricity Generation (GWh/yr)*	73	73	73	73	0
CO2 Emissions Reduction (kilotonne/yr)	14	14	14	14	0
Indigenous Lifeways	-	-	-	-	-
Industrial Historical Value	-	-	-	-	-
Community Identity	-	-	-	-	-
Aesthetic Value	-	-	-	-	-
Public Health	-	-	-	-	-
Social and Environmental Justice	-	-	-	-	-

*To convert from kW to MW, divide the value by 1000. To convert from kW to GW, divide by 100,000. Similarly, to convert from GW to kW, multiply by 100,000. To convert from MW to kW, multiply by 1000.

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

DRAFT MCDA Decision Criteria for participatory stakeholder workshop Fall 2019

Medway Dam FERC No. P-2666

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	0	0	0
River recreation area (square km)	0	0	0	0	0
Reservoir storage (100,000 acre feet)	0	0	0	0	0
Annuitized project costs ($2018 thousands/yr)	246	279	1,148	1,181	160
Breach Damage Potential	3	3	3	3	0
Number of Properties Impacted	0	0	0	0	11
Annual Electricity Generation (GWh/yr)*	28	28	48	48	0
CO2 Emissions Reduction (kilotonne/yr)	5	5	9	9	0
Indigenous Lifeways	-	-	-	-	-
Industrial Historical Value	-	-	-	-	-
Community Identity	-	-	-	-	-
Aesthetic Value	-	-	-	-	-
Public Health	-	-	-	-	-
Social and Environmental Justice	-	-	-	-	-

*To convert from kW to MW, divide the value by 1000. To convert from kW to GW, divide by 100,000. Similarly, to convert from GW to kW, multiply by 100,000. To convert from MW to kW, multiply by 1000.

DRAFT MCDA Decision Criteria for participatory stakeholder workshop Fall 2019

Millinocket/Quakish 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	0-6	0	0-6	0-12
River recreation area (square km)	0	0	0	0	0
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)	38	38	38	38	0
Indigenous Lifeways	-	-	-	-	-
Industrial Historical Value	-	-	-	-	-
Community Identity	-	-	-	-	-
Aesthetic Value	-	-	-	-	-
Public Health	-	-	-	-	-
Social and Environmental Justice	-	-	-	-	-

*To convert from kW to MW, divide the value by 1000. To convert from kW to GW, divide by 100,000. Similarly, to convert from GW to kW, multiply by 100,000. To convert from MW to kW, multiply by 1000.

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
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)	7	7	11	11	0
Indigenous Lifeways	-	-	-	-	-
Industrial Historical Value	-	-	-	-	-
Community Identity	-	-	-	-	-
Aesthetic Value	-	-	-	-	-
Public Health	-	-	-	-	-
Social and Environmental Justice	-	-	-	-	-

*To convert from kW to MW, divide the value by 1000. To convert from kW to GW, divide by 100,000. Similarly, to convert from GW to kW, multiply by 100,000. To convert from MW to kW, multiply by 1000.

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
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)	9	9	14	14	0
Indigenous Lifeways	-	-	-	-	-
Industrial Historical Value	-	-	-	-	-
Community Identity	-	-	-	-	-
Aesthetic Value	-	-	-	-	-
Public Health	-	-	-	-	-
Social and Environmental Justice	-	-	-	-	-

*To convert from kW to MW, divide the value by 1000. To convert from kW to GW, divide by 100,000. Similarly, to convert from GW to kW, multiply by 100,000. To convert from MW to kW, multiply by 1000.

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
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)	18	18	18	18	0
Indigenous Lifeways	-	-	-	-	-
Industrial Historical Value	-	-	-	-	-
Community Identity	-	-	-	-	-
Aesthetic Value	-	-	-	-	-
Public Health	-	-	-	-	-
Social and Environmental Justice	-	-	-	-	-

*To convert from kW to MW, divide the value by 1000. To convert from kW to GW, divide by 100,000. Similarly, to convert from GW to kW, multiply by 100,000. To convert from MW to kW, multiply by 1000.

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	730	730	0
CO2 Emissions Reduction (kilotonne/yr)	0	0	0	0	0
Indigenous Lifeways	-	-	-	-	-
Industrial Historical Value	-	-	-	-	-
Community Identity	-	-	-	-	-
Aesthetic Value	-	-	-	-	-
Public Health	-	-	-	-	-
Social and Environmental Justice	-	-	-	-	-

*To convert from kW to MW, divide the value by 1000. To convert from kW to GW, divide by 100,000. Similarly, to convert from GW to kW, multiply by 100,000. To convert from MW to kW, multiply by 1000.

Ripogenus FERC No. P-2572

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	0-2480	0	0-2480	0-4961
River recreation area (square km)	2	2	2	2	2
Reservoir storage (100,000 acre feet)	14	14	14	14	0
Annuitized project costs ($2018 thousands/yr)	747	1,072	3,487	3,813	724
Breach Damage Potential	3	3	3	3	0
Number of Properties Impacted	0	0	0	0	43
Annual Electricity Generation (GWh/yr)*	234	234	47	47	0
CO2 Emissions Reduction (kilotonne/yr)	44	44	52	52	0
Indigenous Lifeways	-	-	-	-	-
Industrial Historical Value	-	-	-	-	-
Community Identity	-	-	-	-	-
Aesthetic Value	-	-	-	-	-
Public Health	-	-	-	-	-
Social and Environmental Justice	-	-	-	-	-

*To convert from kW to MW, divide the value by 1000. To convert from kW to GW, divide by 100,000. Similarly, to convert from GW to kW, multiply by 100,000. To convert from MW to kW, multiply by 1000.