Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **PA_PA00078** **LAKE SOPHIA DAM**

Bay-wide Diadromous Tier	9
Bay-wide Resident Tier	4
Bay-wide Brook Trout Tier	N/A
NID ID	PA00078
State ID	PA00078
River Name	
Dam Height (ft)	30
Dam Type	Earth
Latitude	41.9721
Longitude	-75.9771
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1a: Headwater (0 - 3.861 sq mi)
HUC 12	Middle Chocohut Creek
HUC 10	Choconut Creek-Susquehanna Ri
HUC 8	Owego-Wappasening
HUC 6	Upper Susquehanna
HUC 4	Susquehanna

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	0.41
% Natural Cover in Upstream Drainage Area	55.99
% Forested in Upstream Drainage Area	51.71
% Agriculture in Upstream Drainage Area	37.87
% Natural Cover in ARA of Upstream Network	79.75
% Natural Cover in ARA of Downstream Network	57.7
% Forest Cover in ARA of Upstream Network	39.87
% Forest Cover in ARA of Downstream Network	44.4
% Agricultral Cover in ARA of Upstream Network	10.76
% Agricultral Cover in ARA of Downstream Network	27.91
% Impervious Surf in ARA of Upstream Network	0.9
% Impervious Surf in ARA of Downstream Network	3.93

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	50.95
% Tree Cover in ARA of Downstream Network	54.16
% Herbaceaous Cover in ARA of Upstream Network	16.37
% Herbaceaous Cover in ARA of Downstream Network	33.75
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	0.51
% Road Impervious in ARA of Upstream Network	1.93
% Road Impervious in ARA of Downstream Network	2
% Other Impervious in ARA of Upstream Network	1.94
% Other Impervious in ARA of Downstream Network	3.88

Metric descriptions can be found at:
http://52.53.143.233/chesapeake-dev/plugins/barrier-prioritization-proto2/images/Metric_Glossary.pdf

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Network, System Type and Condition

Functional Upstream Network (mi)	2.51	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	7075.06	# Downsteam Natural Barriers	0
Absolute Gain (mi)	2.51	# Downstream Hydropower Dams	4
# Size Classes in Total Network	7	# Downstream Dams with Passage	5
# Upstream Network Size Classes	1	# of Downstream Barriers	6

NFHAP Cumulative Disturbance Index	High
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	0
% Conserved Land in 100m Buffer of Downstream Network	6.98
Density of Crossings in Upstream Network Watershed (#/m2)	0.93
Density of Crossings in Downstream Network Watershed (#/m2)	0.98
Density of off-channel dams in Upstream Network Watershed (#/m2)	0
Density of off-channel dams in Downstream Network Watershed (#/m2)	0.01

Diadromous Fish

Downstream Alewife	Historical	Downstream Striped Bass	None Documented
Downstream Blueback	Historical	Downstream Atlantic Sturgeon	None Documented
Downstream American Shad	None Documented	Downstream Shortnose Sturgeon	None Documented
Downstream Hickory Shad	None Documented	Downstream American Eel	Current

Presence of 1 or More Downstream Anadromous Species	Historical
# Diadromous Species Downstream (incl eel)	1

Resident Fish

Barrier is in EBTJV BKT Catchment	No
Barrier is in Modeled BKT Catchment (DeWeber)	No
Barrier Blocks an EBTJV Catchment	Yes
Barrier Blocks a Modeled BKT Catchment (DeWeber)	Yes
Native Fish Species Richness (HUC8)	33
# Rare Fish (HUC8)	1
# Rare Mussel (HUC8)	3
# Rare Crayfish (HUC8)	0

Stream Health

Chesapeake Bay Program Stream Health	FAIR
MD MBSS Benthic IBI Stream Health	N/A
MD MBSS Fish IBI Stream Health	N/A
MD MBSS Combined IBI Stream Health	N/A
VA INSTAR mIBI Stream Health	N/A
PA IBI Stream Health	Good

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