Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_369** **TWIN LAKES DAM #3**

Bay-wide Diadromous Tier	10
Bay-wide Resident Tier	12
Bay-wide Brook Trout Tier	N/A
NID ID	VA07914
State ID	369
River Name	Quarter Creek
Dam Height (ft)	29
Dam Type	Earth
Latitude	38.243
Longitude	-78.442
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1b: Creek (3.861 - 38.61 sq mi)
HUC 12	Swift Run
HUC 10	North Fork Rivanna River
HUC 8	Rivanna
HUC 6	James
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	3.73
% Natural Cover in Upstream Drainage Area	55.02
% Forested in Upstream Drainage Area	50.85
% Agriculture in Upstream Drainage Area	22.11
% Natural Cover in ARA of Upstream Network	61.04
% Natural Cover in ARA of Downstream Network	55.32
% Forest Cover in ARA of Upstream Network	35.34
% Forest Cover in ARA of Downstream Network	54.82
% Agricultral Cover in ARA of Upstream Network	22.89
% Agricultral Cover in ARA of Downstream Network	37.52
% Impervious Surf in ARA of Upstream Network	2.11
% Impervious Surf in ARA of Downstream Network	0.67

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	48.21
% Tree Cover in ARA of Downstream Network	68.16
% Herbaceaous Cover in ARA of Upstream Network	22.2
% Herbaceaous Cover in ARA of Downstream Network	29.36
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	0.01
% Road Impervious in ARA of Upstream Network	2.98
% Road Impervious in ARA of Downstream Network	1.1
% Other Impervious in ARA of Upstream Network	2.96
% Other Impervious in ARA of Downstream Network	0.75

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)	2.23	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	210.92	# Downsteam Natural Barriers	0
Absolute Gain (mi)	2.23	# Downstream Hydropower Dams	3
# Size Classes in Total Network	3	# Downstream Dams with Passage	4
# Upstream Network Size Classes	2	# of Downstream Barriers	6

NFHAP Cumulative Disturbance Index	Very High
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	0
% Conserved Land in 100m Buffer of Downstream Network	22.47
Density of Crossings in Upstream Network Watershed (#/m2)	2.19
Density of Crossings in Downstream Network Watershed (#/m2)	1.25
Density of off-channel dams in Upstream Network Watershed (#/m2)	0
Density of off-channel dams in Downstream Network Watershed (#/m2)	0

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)	No
Native Fish Species Richness (HUC8)	36
# Rare Fish (HUC8)	0
# Rare Mussel (HUC8)	4
# 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	Very High
PA IBI Stream Health	N/A

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