

Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_959**

BIG ISLAND DAM

Diadromous Tier	6
Brook Trout Tier	N/A
Resident Tier	2
NID ID	VA00902
State ID	959
River Name	James River
Dam Height (ft)	18
Dam Type	Gravity
Latitude	37.5356
Longitude	-79.3558
Passage Facilities	None Documented
Passage Year	N/A
Size Class	3b: Medium Mainstem River (1,
HUC 12	Otter Creek-James River
HUC 10	Reed Creek-James River
HUC 8	Middle James-Buffalo
HUC 6	James
HUC 4	Lower Chesapeake



Landcover

NLCD (2011)		Chesapeake Conservancy (2016)	
% Impervious Surface in Upstream Drainage Area	0.72	% Tree Cover in ARA of Upstream Network	82.97
% Natural Cover in Upstream Drainage Area	82.71	% Tree Cover in ARA of Downstream Network	81.36
% Forested in Upstream Drainage Area	81.22	% Herbaceous Cover in ARA of Upstream Network	9.57
% Agriculture in Upstream Drainage Area	11.94	% Herbaceous Cover in ARA of Downstream Network	13.94
% Natural Cover in ARA of Upstream Network	78.45	% Barren Cover in ARA of Upstream Network	0
% Natural Cover in ARA of Downstream Network	77.47	% Barren Cover in ARA of Downstream Network	0.04
% Forest Cover in ARA of Upstream Network	72.08	% Road Impervious in ARA of Upstream Network	1.16
% Forest Cover in ARA of Downstream Network	73.44	% Road Impervious in ARA of Downstream Network	0.56
% Agricultural Cover in ARA of Upstream Network	8.81	% Other Impervious in ARA of Upstream Network	1.09
% Agricultural Cover in ARA of Downstream Network	16.59	% Other Impervious in ARA of Downstream Network	1.15
% Impervious Surf in ARA of Upstream Network	1.42		
% Impervious Surf in ARA of Downstream Network	1.12		

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)	60.03	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	178.69	# Downstream Natural Barriers	0
Absolute Gain (mi)	60.03	# Downstream Hydropower Dams	6
# Size Classes in Total Network	3	# Downstream Dams with Passage	4
# Upstream Network Size Classes	3	# of Downstream Barriers	8
NFHAP Cumulative Disturbance Index	Very High		
Dam is on Conserved Land	No		
% Conserved Land in 100m Buffer of Upstream Network	51.45		
% Conserved Land in 100m Buffer of Downstream Network	10.24		
Density of Crossings in Upstream Network Watershed (#/m2)	1.56		
Density of Crossings in Downstream Network Watershed (#/m2)	1.52		
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	Historical	Downstream Shortnose Sturgeon	None Documented
Downstream Hickory Shad	None Documented	Downstream American Eel	None Documented
Presence of 1 or More Downstream Anadromous Species	Historical		
# Diadromous Species Downstream (incl eel)	0		

Resident Fish

Barrier is in EBTJV BKT Catchment	No
Barrier is in Modeled BKT Catchment (DeWeber)	No
Barrier Blocks an EBTJV Catchment	No
Barrier Blocks a Modeled BKT Catchment (DeWeber)	Yes
Native Fish Species Richness (HUC8)	50
# Rare Fish (HUC8)	0
# Rare Mussel (HUC8)	4
# Rare Crayfish (HUC8)	0

Stream Health

Chesapeake Bay Program Stream Health	GOOD
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	High
PA IBI Stream Health	N/A

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