Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_475** **WILLIS DAM**

Bay-wide Diadromous Tier	10
Bay-wide Resident Tier	11
Bay-wide Brook Trout Tier	N/A
NID ID	VA14530
State ID	475
River Name	
Dam Height (ft)	26
Dam Type	Earth
Latitude	37.5959
Longitude	-78.0576
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1a: Headwater (0 - 3.861 sq mi)
HUC 12	Maxey Mill Creek-Deep Creek
HUC 10	Deep Creek-James River
HUC 8	Middle James-Willis
HUC 6	James
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	0.27
% Natural Cover in Upstream Drainage Area	22.41
% Forested in Upstream Drainage Area	19.54
% Agriculture in Upstream Drainage Area	74.96
% Natural Cover in ARA of Upstream Network	56.76
% Natural Cover in ARA of Downstream Network	94.49
% Forest Cover in ARA of Upstream Network	22.97
% Forest Cover in ARA of Downstream Network	67.46
% Agricultral Cover in ARA of Upstream Network	43.24
% Agricultral Cover in ARA of Downstream Network	4.85
% Impervious Surf in ARA of Upstream Network	0
% Impervious Surf in ARA of Downstream Network	0.04

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	11.69
% Tree Cover in ARA of Downstream Network	92.84
% Herbaceaous Cover in ARA of Upstream Network	47.25
% Herbaceaous Cover in ARA of Downstream Network	5.77
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	0
% Road Impervious in ARA of Upstream Network	0
% Road Impervious in ARA of Downstream Network	0.19
% Other Impervious in ARA of Upstream Network	0
% Other Impervious in ARA of Downstream Network	0.28

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)	0.1	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	162.04	# Downsteam Natural Barriers	0
Absolute Gain (mi)	0.1	# Downstream Hydropower Dams	2
# Size Classes in Total Network	3	# Downstream Dams with Passage	4
# Upstream Network Size Classes	0	# of Downstream Barriers	5

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	11.25
Density of Crossings in Upstream Network Watershed (#/m2)	0
Density of Crossings in Downstream Network Watershed (#/m2)	0.39
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
One or More DS Anadromous Species	Historical	# Diadromous Sp Dnstrm (incl eel)	1

Resident Fish and Rare Species

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)	No
Native Fish Species Richness (HUC8)	51
# Rare Fish (HUC8)	0
# Rare Mussel (HUC8)	3
# Rare Crayfish (HUC8)	0
Globally rare or fed listed fish/mussel sp HUC12	No
Globally rare or fed listed fish/mussel sp in upstream or downstream functional network	No

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	High
PA IBI Stream Health	N/A

Rare fish or mussel sp in HUC12	No
Rare fish or mussel in upstream or downstream functional network	No

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