

Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_344**

WILLIS RIVER DAM #9

Bay-wide Diadromous Tier	5
Bay-wide Resident Tier	2
Bay-wide Brook Trout Tier	N/A
NID ID	VA02910
State ID	344
River Name	Payne Creek
Dam Height (ft)	36.3
Dam Type	Earth
Latitude	37.4824
Longitude	-78.3721
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1a: Headwater (0 - 3.861 sq mi)
HUC 12	Buffalo Creek-Willis River
HUC 10	Upper Willis River
HUC 8	Middle James-Willis
HUC 6	James
HUC 4	Lower Chesapeake



Landcover

NLCD (2011)		Chesapeake Conservancy (2016)	
% Impervious Surface in Upstream Drainage Area	0.29	% Tree Cover in ARA of Upstream Network	91.14
% Natural Cover in Upstream Drainage Area	77.07	% Tree Cover in ARA of Downstream Network	79.1
% Forested in Upstream Drainage Area	65.52	% Herbaceous Cover in ARA of Upstream Network	5.65
% Agriculture in Upstream Drainage Area	18.06	% Herbaceous Cover in ARA of Downstream Network	15.73
% Natural Cover in ARA of Upstream Network	93.5	% Barren Cover in ARA of Upstream Network	0
% Natural Cover in ARA of Downstream Network	79.33	% Barren Cover in ARA of Downstream Network	0.1
% Forest Cover in ARA of Upstream Network	73.56	% Road Impervious in ARA of Upstream Network	0.51
% Forest Cover in ARA of Downstream Network	65.28	% Road Impervious in ARA of Downstream Network	0.6
% Agricultural Cover in ARA of Upstream Network	3.55	% Other Impervious in ARA of Upstream Network	0.06
% Agricultural Cover in ARA of Downstream Network	16.03	% Other Impervious in ARA of Downstream Network	0.78
% Impervious Surf in ARA of Upstream Network	0.18		
% Impervious Surf in ARA of Downstream Network	0.71		

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)	6.27	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	5437.29	# Downstream Natural Barriers	0
Absolute Gain (mi)	6.27	# Downstream Hydropower Dams	2
# Size Classes in Total Network	6	# Downstream Dams with Passage	4
# Upstream Network Size Classes	1	# of Downstream Barriers	4
NFHAP Cumulative Disturbance Index	Not Scored / Unavailable at this scale		
Dam is on Conserved Land	No		
% Conserved Land in 100m Buffer of Upstream Network	15.76		
% Conserved Land in 100m Buffer of Downstream Network	11.23		
Density of Crossings in Upstream Network Watershed (#/m2)	0.62		
Density of Crossings in Downstream Network Watershed (#/m2)	0.84		
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	Potential Current	Downstream Striped Bass	None Documented
Downstream Blueback	Potential Current	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	Potential Curre	# 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	Yes
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	Yes

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	Yes

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