# Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_352** **WILLIS RIVER DAM #2**

| | |
|---|---|
| Diadromous Tier | 7 |
| Brook Trout Tier | N/A |
| Resident Tier | 3 |
| NID ID | VA02919 |
| State ID | 352 |
| River Name | Tongue Quarter Creek |
| Dam Height (ft) | 46.3 |
| Dam Type | Earth |
| Latitude | 37.4551 |
| Longitude | -78.4848 |
| Passage Facilities | None Documented |
| Passage Year | N/A |
| Size Class | 1b: Creek (3.861 - 38.61 sq mi) |
| HUC 12 | Bishop Creek-Willis River |
| HUC 10 | Upper Willis River |
| HUC 8 | Middle James-Willis |
| HUC 6 | James |
| HUC 4 | Lower Chesapeake |


## Landcover

| NLCD (2011) | |
|---|---|
| % Impervious Surface in Upstream Drainage Area | 0.2 |
| % Natural Cover in Upstream Drainage Area | 88.34 |
| % Forested in Upstream Drainage Area | 73.04 |
| % Agriculture in Upstream Drainage Area | 9.19 |
| % Natural Cover in ARA of Upstream Network | 95.93 |
| % Natural Cover in ARA of Downstream Network | 89.75 |
| % Forest Cover in ARA of Upstream Network | 72.22 |
| % Forest Cover in ARA of Downstream Network | 59.92 |
| % Agricultral Cover in ARA of Upstream Network | 3.73 |
| % Agricultral Cover in ARA of Downstream Network | 9.36 |
| % Impervious Surf in ARA of Upstream Network | 0.04 |
| % Impervious Surf in ARA of Downstream Network | 0.07 |

| Chesapeake Conservancy (2016) | |
|---|---|
| % Tree Cover in ARA of Upstream Network | 94.8 |
| % Tree Cover in ARA of Downstream Network | 88.09 |
| % Herbaceaous Cover in ARA of Upstream Network | 3.03 |
| % Herbaceaous Cover in ARA of Downstream Network | 10.47 |
| % Barren Cover in ARA of Upstream Network | 0 |
| % Barren Cover in ARA of Downstream Network | 0.31 |
| % Road Impervious in ARA of Upstream Network | 0.08 |
| % Road Impervious in ARA of Downstream Network | 0.24 |
| % Other Impervious in ARA of Upstream Network | 0.02 |
| % Other Impervious in ARA of Downstream Network | 0.11 |

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) | 20.58 | Upstream Size Class Gain (#) | 0 |
| Total Functional Network (mi) | 185.11 | # Downsteam Natural Barriers | 0 |
| Absolute Gain (mi) | 20.58 | # Downstream Hydropower Dams | 2 |
| # Size Classes in Total Network | 3 | # Downstream Dams with Passage | 4 |
| # Upstream Network Size Classes | 2 | # of Downstream Barriers | 5 |

| | |
|---|---|
| NFHAP Cumulative Disturbance Index | Low |
| Dam is on Conserved Land | No |
| % Conserved Land in 100m Buffer of Upstream Network | 0 |
| % Conserved Land in 100m Buffer of Downstream Network | 3.36 |
| Density of Crossings in Upstream Network Watershed (#/m2) | 0.43 |
| Density of Crossings in Downstream Network Watershed (#/m2) | 0.5 |
| 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 | 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 |

## 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 | Moderate |
| PA IBI Stream Health | N/A |

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