

Water Resources Tab

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Common to Most Water Resources

Name

This field is automatically populated (NHD) and is not editable by the user.

Water Resource Type

Domain Values

Stream / River	A body of flowing water (NHD)
Canal / Ditch	Significant, and likely named, artificial open waterway, functions as a source (NHD) Not all canal / ditches are water resources features at this level of the WRI; may be inventoried as infrastructure
Spring	A place where water issues from the ground naturally.
Stockwater	Small constructed reservoirs or ponds for wildlife watering, also called guzzler (but not a spring), too small to map as an area (i.e. polygon)""
Lake / Pond	70% or greater open water, larger than 20 acres and greater than 2m deep (NWI). Considered to have predominantly natural shoreline.
Reservoir	Constructed basin for purpose of storing water (NHD).
Glacier / Ice Mass	A slowly moving mass or river of ice formed by the accumulation and compaction of snow on mountains or near the poles (NHD).
Estuary	Tidally influenced end of river or semi-enclosed body of water with access to open ocean (NHD).
Wetland	Cultivated / noncultivated, vegetated area inundated or saturated for a significant part of the year (NHD as Swamp / Marsh) that is generally considered artificial, constructed, or regulated and where water is actively managed. These areas are traditionally called by such names as marsh, swamp, bog, fen, and prairie, including small, shallow, permanent or intermittent water bodies often called ponds (NWI as "palustrine").""
Groundwater	Confined and unconfined aquifer information and notes.

Alias

Alternative name or designation for the water resource

Water Quality Source

Domain Values

User
CAP
EPA - Impaired
EPA - TMDL
EPA - Fish Consumption
PRIMR

Water Quality Category

Domain Values

Field Parameters
Metals
Major Ions
Trace Ions
Nutrients

Aquatic Life
Radiogenic Isotopes

Threat Time Frame

Domain Values

Existing	Currently a threat
Medium Term	Anticipated threat within the next 10 years (ex: encroaching development)
Long Term	Anticipated threat that is more than 10 years out (ex: climate change)

Threat Status

Domain Values

Future
Current
Mitigated

Threat Severity

Domain Values

High	Prevents fulfillment of refuge/ hatchery purpose(s) or NWRS mission; threatens public safety; threatens T&E species; threatens adverse legal consequences; threatens infrastructure
Moderate	Hinders completion of one or more management objectives (e.g. degrades habitat for non-T&E species, inadequate infrastructure for habitat management)
Low	Directly or indirectly affects refuge operations, but does not hinder refuge purposes or management objective. Potentially of concern.
Unknown	Insufficient information to determine severity

Threat FWS Autonomy

Domain Values

Yes	Mitigation measures are entirely within FWS control and do not require outside assistance
No	Mitigation measures are partially or entirely outside of FWS control; requires collaboration/ partnerships

Threat Cause

Domain Values

Landscape Alteration Causes
Agricultural Runoff
Urban Runoff
Combined Animal Feeding Operations
Garbage/ Solid Waste
Airborne Pollutants
Road Construction/ Maintenance
Road Maintenance

Pipelines and utility corridors
Wetland Filling
Mining/ Quarrying
Logging/ Forestry
Naturally- Occurring Contaminants
Water Supply/ Quantity Causes
No Active Monitoring
Lack of Water Management Infrastructure
Inefficient, Inadequate, or Damaged Water Management Infrastructure
Existing Rights Junior Priority
Existing Rights Insufficient Quantity/ Timing to meet refuge purposes
Restrictions in Establishing Legislation
Urban Development
Roads/ Culverts
Altered Riparian Vegetation
Agriculture
Grazing/ Ranching
Climate Warming
Change in Frequency/ Severity of Extreme Precipitation Events
Change in Precipitation Patterns (Non-Extreme)
Increase in Drought Frequency/ Severity
Change in Wildfire Frequency/ Severity
Water Quality Causes
Water Management Capability Causes
Water Rights/ Legal Causes
Climate Causes
Cropland drainage/ tiling
Urban Sewage
Wastewater Treatment Facilities
Failing Septic
Livestock
Wildlife Sources
Industrial Effluent
Oil and Gas Development
Oil and Gas Exploration
Hydraulic Fracturing
Irrigation
Fire and fire suppression
Surface Water Diversion: Agriculture
Surface Water Diversion: Municipal
Surface Water Diversion: Industrial

Groundwater Pumping: Agriculture
Groundwater Pumping: Municipal
Groundwater Pumping: Industrial
Dams
Locks
Canals
Levees/ Dikes
Drainage Ditches
Channelization
Impervious Surfaces
Pumping Stations
Irrigation Return Flows
Inter-Basin Transfers
Invasive Species
Non-FWS Management of Water Infrastructure
Off-Refuge Water Management Infrastructure
Other Legal/Political Constraints
FWS Does not Have Permit/ Right for Refuge Water Use
Existing Permit/ Right for non-wildlife beneficial use
State Regulations Not Enforced
Refuge Water Rights Challenged by others
FWS Not Quantifying Water Use
Loss due to non-use
No proof of beneficial use
ESA Compliance/ Threats to listed species
Interstate Compact Agreements
International Treaties
Other Legal Disputes/ Issues
Extreme Precipitation Events
Droughts
Desertification
Tundra/ Permafrost Thawing
Glacier retreat
Temperature Extremes
Tropical Storms/ Hurricanes
Habitat Shifting and Alteration
Augmentation/ Replacement Requirements
FWS Not Participating in Basin Adjudication
Establishing Legislation
Rain-Snow Regimes
Sea Level Rise

Storm-Induced Coastal Erosion
Increased Frequency/ Intensity of Tropical Storms and Hurricanes
Increased Rate of Storm-Induced Coastal Erosion
Changes in Rain-Snow Regimes

Taxonomic Group

Domain Values

Mammals - Marine
Mammals - Terrestrial
Birds - Waterfowl
Birds - Shorebirds
Birds - Seabirds
Birds - Raptors
Other Resident Birds
Other Migratory Birds
Other Aquatic Birds
Amphibians
Reptiles
Fish
Other Freshwater Species
Marine Organisms - Not Mammals
Mollusks - mussels
Mollusks - gastropods
Macroinvertebrates
Plants - Terrestrial
Plants - Aquatic
Wildlife, Other Resident Species
Threatened/ Endangered/ Candidate Species (Fed Listed)
State Listed/ Candidate Species
Exotic/ Pest Species

Source Quality

Domain Values

High	Information is complete; information from peer-reviewed report; or documented with measured data, or personally observed by recorder.
Medium	Some information may be missing; or information from reliable source, but little documentation; not documented with measured data, photos or personally observed; or information reviewed internally, but not peer-reviewed.
Low	Information is known to be incomplete; source of information is of unknown reliability; little to no documentation; information has not been internally reviewed.

Responsible Agency

Domain Values

US Fish and Wildlife
US Geological Survey
Environmental Protection Agency
National Resources Conservation Service
National Park Service
Bureau of Indian Affairs
Bureau of Land Management
Minteral Management Service
Bureau of Reclamation
US Forest Service
State Engineer
Office of Surface Mining, Reclamation, and Enforcement

Need Priority

Domain Values

High	Necessary to fulfill refuge/ hatchery purpose(s) or NWRS mission; necessary to protect public safety, infrastructure or avoid serious legal consequences; necessary for survival of T&E species
Moderate	Necessary to complete one or more management objectives, or protect/ restore habitat for non-T&E species
Low/ Unknown	Would be helpful for refuge operations, but not critical to refuge functions, or is unknown

Need FWS Autonomy

Domain Values

Yes	Obtainment entirely within FWS control and do not require outside assistance
No	Obtainment measures are partially or entirely outside of FWS control; requires collaboration/ partnerships

Need Effort

Domain Values

Major	Requires more staff and/or funding than can be provided by refuge/hatchery and Regional Office (requires outside support)
Minor	Can be accomplished with the existing staff and budget (refuge/hatchery and RO), although it may require re-prioritization of personnel or funding

Monitoring Type

Domain Values

Gaging Station- USGS
Gaging Station- Other
ADCP Site
ADCP w/QW
Water Quality Site - Surface Water

Water Quality Site - Groundwater
Flume/ Weir
Water Level Monitoring
Unsaturated Zone Monitoring
Precip Collector
Climate Metrics Station
Stilling Well

Monitoring Level 3 Catagory

Domain Values

Ozone
Wet and Dry Deposition
Visibility and Particulate Matter
Air Contaminants
Weather and Climate
Windblown Features and Processes
Glacial Features and Processes
Hillslope Features and Processes
Coastal/Oceanographic Features and Processes
Marine Features and Processes
Stream/ River Channel Characteristics
Lake Features and Processes
Geothermal Features and Processes
Cave/Karst Features and Processes
Volcanic Features and Processes
Seismic Activity
Soil Function and Dynamics
Paleontology
Groundwater Dynamics
Surface Water Dynamics
Marine Hydrology
Water Chemistry
Nutrient Dynamics
Toxics
Microorganisms
Aquatic Macroinvertebrates and Algae
Invasive/ Exotic Plants
Invasive/ Exotic Animals
Insect Pests
Plant Diseases

Animal Diseases
Marine Communities
Intertidal Communities
Estuarine Communities
Wetland Communities
Riparian Communities
Freshwater Communities
Sparsely Vegetated Communities
Cave Communities
Desert Communities
Grassland/ Herbaceous Communities
Shrubland Communities
Forest/ Woodland Communities
Marine Invertebrates
Freshwater Invertebrates
Terrestrial Invertebrates
Fishes
Amphibians and Reptiles
Birds
Mammals
Vegetation Complex (use sparingly)
Terrestrial Complex (use sparingly)
T&E Species and Communities
Point Source Human Effects
Consumptive Use
Visitor Use
Cultural Landscapes
Fire and Fuel Dynamics
Land Cover and Use
Extreme Disturbance Events
Soundscape
Viewscape/ Dark Night Sky
Nutrient Dynamics
Primary Production

Monitoring Frequency

Domain Values

Real-Time
Hourly
Daily

Weekly
Monthly
Semi-Annual
Annual
Infrequently
One-Time

Monitoring Description

Domain Values

Animal Presence/ Absence
Animal Productivity
Animal Use
Biological Control Distribution
Biological Control Success
Composition/ Distribution
Composition Diversity
Habitat Diversity
Habitat Productivity
Plant Physiognomy
Vegetation Enclosure
Vegetation Response
Vegetation Structure
Water Quality
Water Level
Water Quantity

Monitoring Category

Domain Values

Air
Soil
Weather
Other
Fauna
Flora
LIDAR
Groundwater
Surface Water

Flow Direction

Domain Values

Backward

Forward

Concentration (Units)

Domain Values

ppm

ppb

ppt

moles

mass%

v/v%

Condition

Domain Values

1 - Excellent	New, functioning system
2 - Good to Fair	Functions, repair within one year
3 - Fair	Functions with constant attention
4 - Fair to Poor	Functionality is questionable
5 - Poor	Not Functioning
NA	NA

Area(Units)

Domain Values

Square Feet

Acres

Square Miles

Square Meters

Square Kilometers

Hectare

Area Notes

Specific notes on the water feature calculated area and if the calculated area within the NHD is representative of a specific pool elevation.

Comments

*There is no link from WRIA to Confluence.

Association

*There is no link from WRIA to Confluence.

Canal or Ditch

*There is no link from WRIA to Confluence.

Length

This field is automatically generated from the NHD data.

Length Notes

*There is no link from WRIA to Confluence.

Estuary

*There is no link from WRIA to Confluence.

Wetland or Estuary Subtype

Domain Values

Agriculture
Emergent
Farm/Wetland Rotation
Forested
Moist Soil
Open Water Wetland (<20 Acres)
Scrub/Shrub
Tidal
Mudflat
Wet Meadow

Glacier or Ice

*There is no link from WRIA to Confluence.

Glacier Subtype

Domain Values

Alpine Glacier
Continental Glacier / Ice Shelf
Continental Glacier / Inland Ice Sheet

Ground Water

*There is no link from WRIA to Confluence.

Ground Water Type

Domain Values

Confined Local Aquifer
Confined Regional Aquifer
Unconfined Local Aquifer
Unconfined Regional Aquifer
Unknown confinement and extent

Aquifer Material

Domain Values

Carbonate rock
Igneous and metamorphic rock
Sandstone
Sandstone and carbonate rock
Semiconsolidated sand
Unconsolidated fine sediments
Unconsolidated peat / organic soils
Unconsolidated sand and gravel

Aquifer Material Notes

*There is no link from WRIA to Confluence.

Lake or Pond

*There is no link from WRIA to Confluence.

Reservoir

*There is no link from WRIA to Confluence.

Volume(Units)

Domain Values

Cubic Feet
Cubic Meter
Cubic Yard
Gallons
Liter

Volume Notes

*There is no link from WRIA to Confluence.

Spring

An issue of water from the earth; a natural fountain; a source of a reservoir of water.

Spring Seasonal Flow

Domain Values

Ephemeral
Intermittent
Perennial

Elevation

Domain Values

feet
meters

Elevation Notes

*There is no link from WRIA to Confluence.

Stockwater

*There is no link from WRIA to Confluence.

Stockwater Purpose

Domain Values

Aquaculture
Stock
Wildlife

Stream or River

*There is no link from WRIA to Confluence.

Stream Seasonal Flow

Domain Values

Ephemeral
Intermittent
Perennial

Length

*There is no link from WRIA to Confluence.

Length Notes

*There is no link from WRIA to Confluence.

Wetland

*There is no link from WRIA to Confluence.

Wetland/Estuary Subtype

Domain Values

Agricultural	
Emergent	Perennial gramminoid vegetation may include several water regimes along gradient (Hands et al. 1991)
Farm/Wetland Rotation	
Forested	e.g., Cottonwood dominated
Moist Soil	Annual vegetation, usually forb, (removal of mud flat) to provide seeds, tubers, and invertebrates for wetland wildlife (Fredrickson and Taylor, 1982, Hands et al. 1991)
Mudflat	
Open Water Wetland (<20 Acres)	Small ponds and aquaculture
Scrub / Shrub	e.g., Willow dominated
Tidal	
Wet Meadow	

Wetland Managed

*There is no link from WRIA to Confluence.

Hydro Period

Domain Values

Permanently inundated
Seasonally inundated
Tidally inundated