Water Source

Abbreviation or Acronym: WaterSource

Data Exchange Name: WaterSource

Also Known As: N/A

Description: The Engine Water Sources data standard includes definition of a point feature class for storing information in support of fire-related operations. This layer provides information about the locations, capacity, type, etc. of water sources that may be used for firefighting purposes.

Background: This data standard began development in 2010 as Engine Water Sources. The standard was broadened to include water sources for aviation as well. The original data standard elements were used when appropriate.

Abstract: None

Purpose: Provide a data standard for storing and sharing water source information

Data Model: Geodatabase point feature class

Other Notes: None

Related Layers: This data layer relates to the Fire Point feature class used in the Fire Incident Mapping Tools. This feature class is intended to replace the water source option in that feature class.

Steward: Geospatial Subcommittee

Version: 1

Horizontal and/or Vertical Positional Accuracy: Standards for horizontal and vertical accuracies are detailed in Geospatial Positioning Accuracy Standards; Part 3: National Standard for Spatial Data Accuracy (NSSDA), http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part3/chapter3. Accuracy is reported by feature in meters at the 95% confidence level listed in the HAccuracy

and/or VAccuracy fields. Accuracy reported at the 95% confidence level means that 95% of the positions in the feature will have an error with respect to true ground position that is equal to or smaller than the reported accuracy value.

Horizontal and/or Vertical Spatial Reference Information: Data layer projection parameters should be documented in a .prj file (shapefile format) or in a geodatabase projection definition. Or, specify the projection parameters via an EPSG code (example EPSG code 4326 = WGS84), http://www.epsg-registry.org . Projection parameters file should include applicable attributes as specified in the FGDC Standards Reference Model, 4.1.2.1.23.

Sensitivity Level: Unknown

Geospatial Data Layer Standard Attributes & Attribute Definitions

Standard Name*	Alternate Name	Required?	Data Type	Size/ Width	Description	Values	Related NWCG Standard
NWCGUnitID	UnitIDUn_ID	Yes	String	6	Code used in interagency wildland fire to uniquely identify a particular organizational unit (office administratively responsible for either managing incidents/projects, providing resources, or providing logistical services) within the government or a non-government organization recognized by NWCG as a wildland fire cooperator	NWCG (PMS 931: Unit Identifiers)	Unit Identifier
NFIRSUnitID	NFIRSUntID	No	Integer	6	National Fire Incident Reporting System (NFIRS) fire department ID used to uniquely **identify a non-federal organizational unit** (office administratively responsible for either managing incidents, providing resources, or providing logistical services).	NFIRS ID	

NWCG Geospatial Data Standard Metadata Definitions and Values

Standard Name*	Alternate Name	Required?	Data Type	Size/ Width	Description	Values	Related NWCG Standard
MapMethod	Map_Method MapMeth	Yes	String	25	Controlled vocabulary to define how the geospatial feature was derived. Map method may help define data quality.	GPS-Driven; GPS-Flight; GPS-Walked; GPS-Walked/ Driven; GPS-Unknown Travel Method; Hand Sketch; Digitized-Image; Digitized-Topo; Digitized-Other; Image Interpretation; Infrared Image; Modeled; Mixed Methods; Remote Sensing Derived; Survey/GCDB/Cadastral; Vector; Other	
DateCurrent	DateCrnt EditDate	Yes	Date		The last edit, update, of this GIS record. Example: mm/dd/yyyy		Date
Comments	Notes GIS_Note	No, but recommended	String	255	Additional information describing the feature.	Free text	
GeometryID	Geometry_ID GIS_ID Spa_ID	Yes	String	50	Primary key for linking geospatial objects with other database systems. **Required for every feature.** This field may be renamed for each standard to fit the feature.	Globally Unique Identifier (GUID). **	
Name	Water Source Name	No	String	50	Name of the water source.	Example: Old Pond	
Number	Water Source Number	No	Short Integer		Number of the water source.	Example: 1234	

Standard Name*	Alternate Name	Required?	Data Type	Size/ Width	Description	Values	Related NWCG Standard
WaterSourceType	Water Source Type	Yes	String	50	The type of water source.	Domain: Lake, River, Stream/Creek, Hydrant, Stand Pipe, Heliwell, Pumpkin, Pond, Livestock Catchement	
IsAvailable	Is Available	Yes	Sting	4	Can the water source be used for fire purposes?	Domain: Yes, No	
Sustainability	Sustainability	Yes	Sting	50	A measoure of the refresh rate of the water source.	Domain: Seasonal, Initial Attack Only, Sustainable	
Limitations	Limitations	Yes (if applicable)	String	255	Limitation of the water source like duration of use, seasonality, slow refill, must have specific size screen on draft hose, etc.	Example: Can't draw too much.	
InvasiveConcern	Invasive Concerns	Yes (if applicable)	Sting	255	List and invasive species concerns.	Example: Mussels	
Hazards	Hazards	Yes (if applicable)	String	255	List any hazards to accessing and using the water source.	Example: Low power lines.	
LatWGS84	Latitude WGS84	Yes	Sting	25	For labeling. Need to be able to display in DD mm.mmm to communitcate to pilot	Example: 39 25.5656	
LongWGS84	Longitude WGS84	Yes	String	25	For labeling. Need to be able to display in DD mm.mmm to communitcate to pilot	Example: -105 25.5656	
UTMN	UTM Northing	Yes	String	25	For nonfire personnel.	Example: 4251205N	
UTME	UTM Easting	Yes	String	25	For nonfire personnel.	Example: 580814E	

Standard Name*	Alternate Name	Required?	Data Type	Size/ Width	Description	Values	Related NWCG Standard
UTMZone	UTM Zone	Yes	String	10	For nonfire personnel.	Example: Zone 15	
Elevation	Elevation Feet	Yes	Short Integer		Surface elevation in feet at the water source.	Example: 11325	
SourceGallonCapacity	Source Gallon Capacity	Yes	Short Integer		Capacity in gallons of the water source.	Example: 10,000	
SourceDepth	Source Depth	Yes	Short Integer		Depth in feet of the water source.	Example: 20	
HelicopterType	Helicopter Type	Yes		20	Largest Helicopter type that can use the water source. If not accessible with a helicopter select None.	Domain: Type1, Type2, Type3, None	
EngineType	Engine Type	Yes		20	Largest Engine type that can use the water source. If not accessible with an Engine select None.	Domain: Type1, Type2, Type3, Type4, Type5, Type6, Type7, and None.	NWCG Memo#006-2008 Typing Standards
TenderType	Tender Type	Yes		20	Largest Tender type that can use the water source. If not accessible with a Tender select None.	Domain: TypeS1, TypeS2, TypeS3, TypeT1, TypeT2, None	NWCG Memo#006-2008 Typing Standards
LandOwnerCategory	Land Owner Category	No	String	50	Who owns the land where the water source is located.	Domain: BIA,BLM,BOR,DOD,DOE, NPS,USFS,USFWS,Foreign,Tribal,City,County,State,Private,Unknown	Land Owner Category
OwnerContactInfo	Contact Information	Yes		255	Full contact information for the landowner including name, phone number, email, etc.	Example: Joe Smith, home: 303-555-1212, cell: 303-555-1213, JoeSmith@email.com	
Directions	Directions	No	String	1000	Driving directions to water source for trucks.	Example: Out past the old schoolhouse	
LastUsed	Date Last Used	Yes	Date		Date the water source was last used or visited and confirmed to be viable	Example: 5/3/15	NWCG Date

*Standard field names should be used for the core attributes when possible. Alternate field name suggestions are given to accommodate database conflicts and legacy datasets. Alternate name use should be documented in the Other Notes section above.

** GUIDs are unique specially formatted numeric strings generated by a “GUID generation tool.” GUIDs can be generated at http://www.guidgenerator.com/