Root	WaDE	Root Element for Water Data Exchange	Header	1:1	Y		
1.0	Organization	Organization responsible for the data reported.	Header	1:MANY	Y		
1.0.1	OrganizationIdentifier	A unique identifier assigned to the organization. Identifiers are managed by the Central Catalog operator.	string	10	Y	Y	
1.0.2	OrganizationName	Name corresponding to unique organization ID (i.e. Utah Division of Water Resources)	string	300	Y	N	
1.0.3	PurviewDescription	A description of the purview of the agency (e.g., water rights, consumptive use estimates, etc.)	string	300	N	N	
1.0.4	WaDEURLAddress	The base (root) URL that the state agency will use to host the WaDE web services, including trailing forward slash	string	400	N	N	
1.0.5	Contact	Organization Contact Information	Header	1:1	Y		
1.0.5.1	FirstName	First name of a person.	string	15	Y	N	
1.0.5.2	MiddleInitial	Middle Initial of a person.	string	3	N	N	
1.0.5.3	LastName	Last name of a person.	string	15	Y	N	
1.0.5.4	IndividualTitleText	Title of the contact person.	string	45	N	N	
1.0.5.5	EmailAddressText	Email address data	string	240	N	N	
1.0.5.6	TelephoneNumberText	Telephone Number data	string	15	N	N	
1.0.5.7	PhoneExtensionText	Telephone number extension	string	6	N	N	
1.0.5.8	FaxNumberText	Fax Number	string	15	N	N	
1.0.5.9	MailingAddress	Mailing address information	Header	1:1	Y		
1.0.5.9.1	MailingAddressText	Mailing Address	string	60	Y	N	
1.0.5.9.2	SupplementalAddressText	Additional Address Information	string	60	N	N	
1.0.5.9.3	MailingAddressCityName	City or Locality Name	string	25	Y	N	
1.0.5.9.4	MailingAddressStateUSPSCode	State USPS Code (i.e. KS)	string	2	Y	Y	
1.0.5.9.5	MailingAddressCountryCode	Country Name	string	2	N	Y	
1.0.5.9.6	MailingAddressZIPCode	Zip Code	string	14	Y	N	
1.0.6	Report	Header for the water summary or water detail report.	Header	1:MANY	Y		
1.0.6.1	ReportIdentifier	A unique identifier assigned to the report by the reporting organization, usually a numeric corresponding to the year for the encapsulated data.	string	35	Y	N	
1.0.6.2	ReportingDate	Date the report was generated and added to the database.	Date		Y	N	
1.0.6.3	ReportingYear	Reporting year (calendar year) that encapsulates the data in the report, can be the same as ReportIdentifier.	string	4	Y	N	
1.0.6.4	ReportName	Name of the report, if state wishes to provide a summary of the report.	string	80	N	N	
1.0.6.5	ReportLink	Link to the PDF or web page for the narrative report that contains information about the provided report.	string	300	N	N	
1.0.6.6	YearType	Report year type: Calendar Year, Water Year, etc. If not provided, then Calendar Year will be assumed.	string	25	N	Y	
1.0.6.7	GeospatialReference	Header for the Geospatial Information related to the report.	Header	1:MANY	N		
1.0.6.7.1	WFSType	Header for the Web Feature Service Type	Header	1:MANY	Conditional	N	
1.0.6.7.1.1	WFSDataCategory	Describes whether the WFS is of the Summary data category or Detailed.	string	80	Y	Y	Required if WFSTypeName is reported (Must be "SUMMARY" or "DETAIL")
1.0.6.7.1.2	WFSTypeName	A reference to what type of summary or detailed data are represented by the web feature service.	string	80	Y	Y	Required if WFSTypeName is reported (Must be "AVAILABILITY", "WATER SUPPLY", "USE", "DIVERSION", "RETURN FLOW", OR "REGULATORY"

1.0.6.7.1.3	WFSAddressLink	The web feature service URL address.	string	200	Y	N	Required if WFSTypeName is reported
1.0.6.7.1.4	WFSFeatureIDFieldText	The column or field that contains a unique identifier for the features in the web feature service.	string	35	Y	N	Required if WFSTypeName is reported
1.0.6.8	ReportingUnit	The Geo-spatial unit that is the index for data discovery (e.g., HUC-8, County, or Custom Basin Delineation)	Header	1:MANY	Y		
1.0.6.8.1	ReportingUnitIdentifier	A unique identifier assigned to the reporting unit by the reporting organization.	string	35	Y	N	
1.0.6.8.2	ReportingUnitName	Name of the reporting unit	string	300	Y	N	
1.0.6.8.3	ReportingUnitTypeName	The type of unit being represented (i.e. County, HUC-8, Irrigation District, User-defined boundary, Etc.)	string	35	Y	Y	Preferred to be "COUNTY", "HUC", or "CUSTOM"
1.0.6.8.4	Location	Location information concerning the Reporting Unit.	Header	1:1	Y		
1.0.6.8.4.1	StateCode	Code representing the two-digit abbreviation for the state.	string	2	Y	Y	See the LU_STATE table in the WaDE database for this value
1.0.6.8.4.2	CountyFipsCode	County FIPS code (including the state FIPS code) representing the county.	string	5	Conditional	Y	Either County FIPS Code, Hydrologic Unit Code identifier, or custom Reporting Unit may be provided. If a state has more than one way of indexing their data, they need additional lines for each reporting unit type so that names, etc. can be accomodated.
1.0.6.8.4.3	HydrologicUnitCode	Code representing the USGS Hydrologic Unit Code (HUC) at the most detailed level that the assignment can be made. Leading 0's should be included.	string	12	Conditional	Y	Either CountyFipsCode, HydrologicUnitCode, GeographicLocation, or all three must be provided.
1.0.6.8.5	AvailabilitySummary	Summary of water availability within the reporting unit.	Header	0:MANY	N	N	
1.0.6.8.5.1	WFSReference	Web Feature Service feature reference for the availability estimate.	Header	1:1	N	N	
1.0.6.8.5.1.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference
1.0.6.8.5.2	AvailabilityTypeName	The type of water available (e.g., snowpack, precipitation, basin inflows, etc.)	string	50	Y	N	
1.0.6.8.5.3	FreshSalineIndicator	Indicates whether the water availbility is from fresh water, saline, or mixed water quality sources.	string	10	Y	N	
1.0.6.8.5.4	SourceTypeName	Value for the Water Availability Source Type (e.g., surface water, groundwater, reuse, etc.)	string	10	Y	N	

1.0.6.8.5.5	AvailabilityEstimate	Estimate of the water availability for the given time frame as either a volume amount or a relative metric.	Header	1:MANY	Y		
1.0.6.8.5.5.1	AvailabilityAmount	Volume of water available in this reporting unit.	Header	1:MANY	Conditional		
1.0.6.8.5.5.1.1	AmountNumber	Value of amount of water reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AvailabilityAmount is reported
1.0.6.8.5.5.1.2	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Y		Required if AvailabilityAmount is reported
1.0.6.8.5.5.1.2.1	MethodContext	The owner of the method. The organization's ORG_ID can be supplied here.	string	10	Y	N	Required if Method is reported
1.0.6.8.5.5.1.2.2	MethodName	The name of the method used.	string	35	Y	N	Required if Method is reported
1.0.6.8.5.5.1.2.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.8.5.5.1.2.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.8.5.5.1.2.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.8.5.5.1.3	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.8.5.5.1.3.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.8.5.5.1.3.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.8.5.5.2	AvailabilityMetric	Metric measuring relative availability of water within this reporting unit.	Header	1:MANY	Conditional		
1.0.6.8.5.5.2.1	MetricName	Name of the metric	string	35	Y	N	Required if AvailabilityMetric is reported
1.0.6.8.5.5.2.2	MetricValue	Value of the metric for this reporting unit. Higher numbers should indicate more availability.	decimal	18,3	Y	N	Required if AvailabilityMetric is reported
1.0.6.8.5.5.2.3	MetricScaleNumber	Highest allowed value for the metric (i.e. '10' on a scale of 1-10)	decimal	18,3	Y	N	Required if AvailabilityMetric is reported
1.0.6.8.5.5.2.4	ReverseScaleIndicator	This should be marked with a 'Y' if the scale is reversed (i.e. higher numbers indicate less avaialbility)	string	1	N	Y	Only a value of 'Y' is allowed. Otherwise do not report this data element.
1.0.6.8.5.5.2.5	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Conditional		
1.0.6.8.5.5.2.5.1	MethodContext	The owner of the method. The organization's ORG_ID can be supplied here.	string	10	Y	Y	Required if Method is reported
1.0.6.8.5.5.2.5.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.8.5.5.2.5.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.8.5.5.2.5.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.8.5.5.2.5.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.8.5.5.2.6	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.8.5.5.2.6.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.8.5.5.2.6.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.8.6	AllocationSummary	Annual summary of water allocations within the reporting unit.	Header	0:MANY	N		
1.0.6.8.6.1	AllocationUse	Beneficial use for which the water is allocated.	Header	1:MANY	Y		At least one instance of Allocation Use is required if AllocationSummary is reported.
1.0.6.8.6.1.1	WFSReference	Web Feature Service feature reference for the allocation estimate.	Header	1:1	N	N	
1.0.6.8.6.1.1.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference
1.0.6.8.6.1.2	AllocationUseContext	Owner for the use type (i.e. state abbreviation)	string	10	Y	Y	Required if AllocationUse is reported.

1.0.6.8.6.1.3	AllocationUseTypeName	Name of the beneficial use.	string	35	Y	Y	Required if AllocationUse is reported.
1.0.6.8.6.1.4	**AllocationAmountSummary**	**Summary amount allocated to each allocation use type.**	**Header**	**1:MANY**	**Y**		**At least one instance of AllocationAmount is reqired if AllocationUse is reported.**
1.0.6.8.6.1.4.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AllocationAmount is reported.
1.0.6.8.6.1.4.2	FreshSalineIndicator	Indicates whether the source is fresh water, saline water, or represents the total of both.	string	10	Y	Y	Required if AllocationAmount is reported.
1.0.6.8.6.1.4.3	SourceTypeName	Water Source: Ground, Surface, Reuse, Total	string	10	Y	Y	Required if AllocationAmount is reported.
1.0.6.8.6.1.4.4	PowerGeneratedNumber	For thermoelectric energy uses, the amount of thermoelectric power generated (in megawatt/hours) during the reporting period.	decimal	18,3	N	N	
1.0.6.8.6.1.4.5	PopulationServedNumber	For Municipal uses, the population served within this reporting unit.	decimal	18,3	N	N	
1.0.6.8.6.1.4.6	**IrrigationWaterSupply**	**Additional Metadata for irrigation water supply uses**	**Header**	**0:MANY**	**N**		
1.0.6.8.6.1.4.6.1	IrrigationMethodName	Name of the method used to irrigate (i.e. sprinkler, flood, microirrigation, etc.)	string	30	N		
1.0.6.8.6.1.4.6.2	AcresIrrigatedNumber	Number of acres irrigated using this method.	decimal	18,3	Y	N	
1.0.6.8.6.1.4.6.3	CropTypeName	Crop type being irrigated	string	60	N	Y	

ID	Element	Description	Type	Length	Req	Key	Notes
1.0.6.8.7	WaterUseSummary	Summary of water use within the reporting unit by beneficial use category	Header	0:MANY	N		
1.0.6.8.7.1	WaterUse	Beneficial use for which the water is used.	Header	1:MANY	Y		
1.0.6.8.7.1.1	WFSReference	Web Feature Service feature reference for the use estimate.	Header	1:1	N	N	
1.0.6.8.7.1.1.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference
1.0.6.8.7.1.2	WaterUseContext	Owner for the use type (i.e. state abbreviation)	string	10	Y	Y	Required if WaterUse is reported.
1.0.6.8.7.1.3	WaterUseTypeName	Name of the beneficial use.	string	35	Y	Y	Required if WaterUse is reported.
1.0.6.8.7.1.4	WaterUseAmountSummary	Summary amount used for each use type.	Header	1:MANY	Y		At least one instance of WaterUseAmountSummary is reqired if WaterUse is reported.
1.0.6.8.7.1.4.1	FreshSalineIndicator	Indicates whether the source is fresh water, saline water, or represents the total of both.	string	10	Y	Y	Required if UseAmount is reported.
1.0.6.8.7.1.4.2	SourceTypeName	Water Source: Ground, Surface, Reuse, Total	string	10	Y	Y	Required if UseAmount is reported.
1.0.6.8.7.1.4.3	PowerGeneratedNumber	For thermoelectric energy uses, the amount of thermoelectric power generated (in megawatt/hours) during the reporting period.	decimal	18,3	N	N	Must report in megawatt-hours (MWH)
1.0.6.8.7.1.4.4	PopulationServedNumber	For Municipal uses, the population served within this reporting unit.	decimal	18,3	N	N	
1.0.6.8.7.1.4.5	IrrigationWaterSupply	Additional metadata for irrigation water supply uses	Header	0:MANY	N		
1.0.6.8.7.1.4.5.1	IrrigationMethodName	Name of the method used to irrigate (i.e. sprinkler, flood, microirrigation, etc.)	string	30	N	Y	Required if IrrigationWaterSupply is reported.
1.0.6.8.7.1.4.5.2	AcresIrrigatedNumber	Number of acres irrigated using this method.	decimal	18,3	Y	N	
1.0.6.8.7.1.4.5.3	CropTypeName	Crop type being irrigated	string	60	N	Y	
1.0.6.8.7.1.4.6	WaterUseAmount	Amount of water used	Header	1:MANY	Y		At least one instance of WaterUseAmount is required if WaterUseAmountSummary is reported.
1.0.6.8.7.1.4.6.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if WaterUseAmount is reported.
1.0.6.8.7.1.4.6.2	ConsumptiveIndicator	An indication of whether the reported amount represents a consumptive amount or a withdrawn amount	string	10	Y	Y	Required if WaterUseAmount is reported.
1.0.6.8.7.1.4.6.3	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Conditional		
1.0.6.8.7.1.4.6.3.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.8.7.1.4.6.3.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.8.7.1.4.6.3.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage Value
1.0.6.8.7.1.4.6.3.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.8.7.1.4.6.3.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.8.7.1.4.6.4	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.8.7.1.4.6.4.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.8.7.1.4.6.4.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.8.8	DerivedWaterSupplySummary	Summary of derived water supply within the reporting unit for the reporting year.	Header	0:MANY	N		
1.0.6.8.8.1	DerivedWaterSupplyType	Water Supply Type	Header	1:MANY	Y		Required if DerivedWaterSupplySummary is reported.
1.0.6.8.8.1.1	WFSReference	Web Feature Service feature reference for the water supply estimate.	Header	1:1	N	N	
1.0.6.8.8.1.1.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference

1.0.6.8.8.1.2	WaterSupplyTypeName	Name of the water supply type (i.e. flow, storage, etc.)	string	35	Y	Y	Required if DerivedWaterSupplyType is reported.
1.0.6.8.8.1.3	SupplyAmountSummary	Water supply summaries for the specified time frame	Header	1:MANY	Y		Required if DerivedWaterSupplyType is reported.
1.0.6.8.8.1.3.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if SupplyAmountSummary is reported.
1.0.6.8.8.1.3.2	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Conditional		
1.0.6.8.8.1.3.2.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.8.8.1.3.2.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.8.8.1.3.2.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.8.8.1.3.2.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.8.8.1.3.2.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.8.8.1.3.3	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.8.8.1.3.3.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.8.8.1.3.3.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.8.9	RegulatorySummary	Summary of regulatory status for the reporting unit.	Header	0:MANY	N		
1.0.6.8.9.1	RegulatoryType	A Description of the restriction on water use in the reporting unit.	Header	1:MANY	Y		Required if RegulatorySummary is reported.
1.0.6.8.9.1.1	WFSReference	Web Feature Service feature reference for the regulatory summary	Header	1:1	N	N	
1.0.6.8.9.1.1.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference
1.0.6.8.9.1.2	RegulatoryTypeName	Name of the type of restriction on surface water, groundwater, or re-use	string	50	Y	N	Required if RegulatoryType is reported.
1.0.6.8.9.1.3	RegulatoryStatusText	Descrption of the regulatory status in the reporting unit (i.e. open, closed, partial, etc.)	string	35	Y	Y	Required if RegulatoryType is reported.

ID	Name	Description	Type	Size	Req	Key	Notes
1.0.6.8.9.1.4	OversightAgencyName	Name of the special management district or oversight committee/basin group.	string	60	N	N	
1.0.6.8.9.1.5	RegulatoryDescriptionText	Description of the regulatory restriction.	string	255	N	N	
1.0.6.9	ReportDetails	Detailed, site specific information on water allocations, diversions, use, and return flows.	Header	0:1	N		
1.0.6.9.1	WaterAllocation	Allocations or water rights assigned to specific entities.	Header	0:MANY	N		
1.0.6.9.1.1	AllocationIdentifier	Unique identifier for the allocation	string	60	N	N	
1.0.6.9.1.2	AllocationOwnerName	Name of the entity with the allocation	string	100	N	N	
1.0.6.9.1.3	ApplicationDate	The date on which the water right was applied for.	Date		Conditional	N	Either ApplicationDate or PriorityDate is required.
1.0.6.9.1.4	PriorityDate	The priority date for the water right.	Date		Conditional	N	Either ApplicationDate or PriorityDate is required.
1.0.6.9.1.5	EndDate	For temporary water rights, the end date for the water right.	Date		N	N	
1.0.6.9.1.6	LegalStatusCode	The legal status of the water right (i.e. is it a proven right, perfected, or being adjudicated, etc.)	string	25	N	Y	
1.0.6.9.1.7	DetailLocation	The Location of the detailed allocation, diversion, use, or return flow.	Header	1:MANY	Y		
1.0.6.9.1.7.1	StateCode	Code representing the two-digit abbreviation for the state.	string	2	Y	Y	
1.0.6.9.1.7.2	ReportingUnitIdentifier	A unique identifier assigned to the reporting unit by the reporting organization.	string	35	Y	N	
1.0.6.9.1.7.3	CountyFipsCode	County FIPS code (including the state FIPS code) representing the county.	string	5	N	Y	
1.0.6.9.1.7.4	HydrologicUnitCode	Code representing the USGS Hydrologic Unit (or HUC) at the most detailed level that the assignment can be made (6-digit being the lowest level of resolution allowed). Leading 0's should be included.	string	12	N	Y	
1.0.6.9.1.7.5	LatitudeNumber	Latitude of the water right location in decimal degrees	decimal	18,8	N	N	
1.0.6.9.1.7.6	LongitudeNumber	Longitude of the water right location in decimal degrees	decimal	18,8	N	N	
1.0.6.9.1.7.7	EPSGCode	Code for projection, with a preference for WGS_1984, EPSG of 4326	decimal	10	N	N	Preference for EPSG of 4326 (GCS WGS 1984)
1.0.6.9.1.7.8	NHDNetworkStatus	Whether or not the water right location is indexed to the USGS NHD network	string	5	Y	Y	Y or N values
1.0.6.9.1.7.9	NHDVersion	Version number of the NHD used for the indexing	string	5	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.7.10	NHDUpdateDate	If the water right location is indexed to the USGS NHD, this provides the date it was indexed to the NHD.	Date		N	Y	Required if NHDNetworkStatus is Y
1.0.6.9.1.7.11	NHDReachCode	If the water right location is indexed to the USGS NHD, this provides the Reach Code Identifier	decimal	18,8	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.7.12	NHDMeasureNumber	If the water right location is indexed to the USGS NHD, this provides the Measure number that provides the event's location on a reach.	decimal	18,8	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.7.13	WFSReference	Web Feature Service feature reference for the point of diversion	Header	1:1	N	N	
1.0.6.9.1.7.13.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference
1.0.6.9.1.8	AllocationAmount	Defines the ammount of water attributed to the entire allocation. If an allocation has diversions associated with it, then report this information for each diversion.	Header	0:MANY	N		
1.0.6.9.1.8.1	WaterAllocated	The amount of water allocated for this allocation or diversion.	Header	1:1	Y		
1.0.6.9.1.8.1.1	BeneficialUse	Beneficial use for which the water is used.	Header	1:MANY	Y		At least one instance of Allocation Use is required if AllocationSummary is reported.
1.0.6.9.1.8.1.1.1	BeneficialUseContext	Owner for the use type (i.e. state abbreviation)	string	10	Y	Y	Required if WaterUse is reported.
1.0.6.9.1.8.1.1.2	BeneficialUseTypeName	Name of the beneficial use.	string	35	Y	Y	Required if WaterUse is reported.
1.0.6.9.1.8.1.2	AllocatedVolume	The volume of water allocated for this allocation or diversion.	Header	0:1	Conditional		Either AllocatedVolume, AllocatedRate, or both must be provided.
1.0.6.9.1.8.1.2.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AvailabilityAmount is reported

ID	Name	Description	Type	Length	Req	Y/N	Notes
1.0.6.9.1.8.1.2.2	AmountUnitsCode	Unit of measure	string	10	Y	Y	Required if AvailabilityAmount is reported
1.0.6.9.1.8.1.3	**AllocatedRate**	**The rate at which water can be diverted for this allocation or diversion.**	**Header**	**0:1**	**Conditional**		**Either AllocatedVolume, AllocatedRate, or both must be provided.**
1.0.6.9.1.8.1.3.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AvailabilityAmount is reported
1.0.6.9.1.8.1.3.2	AmountUnitsCode	Unit of measure	string	10	Y	Y	Required if AvailabilityAmount is reported
1.0.6.9.1.8.1.4	SourceTypeName	Water Source: Ground, Surface, Reuse, Total	string	10	Y	Y	
1.0.6.9.1.8.1.5	FreshSalineIndicator	Indicates whether the source is fresh water, saline water, or represents the total of both.	string	10	Y	Y	
1.0.6.9.1.8.1.6	**TimeFrame**	**Time frame for the availability estimate, allocation, diversion, or use.**	**Header**	**1:1**	**Y**		
1.0.6.9.1.8.1.6.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.8.1.6.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.8.1.7	SourceName	Name of the Aquifer for groundwater sources or river basin for surface water sources.	string	60	N	N	
1.0.6.9.1.8.1.8	**ActualAmount**	**The actual amount of water diverted at this diversion for the reporting period.**	**Header**	**0:MANY**	**Y**		
1.0.6.9.1.8.1.8.1	**ActualVolume**	**The actual volume of water diverted at this diversion for the reporting period.**	**Header**	**0:1**	**Conditional**		**Either ActualVolume or ActualRate must be reported, or both.**
1.0.6.9.1.8.1.8.1.1	ActualAmountNumber	Amout of water diverted.	decimal	18,3	Y	N	
1.0.6.9.1.8.1.8.1.2	ActualAmountUnitsCode	Unit of measure	string	10	Y	Y	
1.0.6.9.1.8.1.8.1.3	ValueTypeCode	Indicator on how the actual amount was determined (i.e. calculated, measured, estimated, or reported).	string	1	Y	Y	
1.0.6.9.1.8.1.8.1.4	**Method**	**Method used to determine the metric, calculation or estimate.**	**Header**	**1:1**	**Conditional**		
1.0.6.9.1.8.1.8.1.4.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.9.1.8.1.8.1.4.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.9.1.8.1.8.1.4.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.9.1.8.1.8.1.4.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.9.1.8.1.8.1.4.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.9.1.8.1.8.2	**ActualRate**	**The actual rate of water diverted at this diversion for the reporting period.**	**Header**	**0:1**	**Conditional**		**Either ActualVolume or ActualRate must be reported, or both.**
1.0.6.9.1.8.1.8.2.1	ActualAmountNumber	Amout of water diverted.	decimal	18,3	Y	N	
1.0.6.9.1.8.1.8.2.2	ActualAmountUnitsCode	Unit of measure	string	10	Y	Y	
1.0.6.9.1.8.1.8.2.3	ValueTypeCode	Indicator on how the actual amount was determined (i.e. calculated, measured, estimated, or reported).	string	1	Y	Y	
1.0.6.9.1.8.1.8.2.4	**Method**	**Method used to determine the metric, calculation or estimate.**	**Header**	**1:1**	**Conditional**		
1.0.6.9.1.8.1.8.2.4.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.9.1.8.1.8.2.4.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.9.1.8.1.8.2.4.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.9.1.8.1.8.2.4.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.9.1.8.1.8.2.4.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage

1.0.6.9.1.8.1.8.3	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.9.1.8.1.8.3.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.8.1.8.3.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.9	Diversion	Description of the location for the diverted water.	Header	0:MANY	N		
1.0.6.9.1.9.1	DiversionIdentifier	Unique identifier for the diversion within this allocation.	string	35	Y	N	Required if Diversion is reported
1.0.6.9.1.9.2	DiversionName	Name for the diversion.	string	255	N	N	
1.0.6.9.1.9.3	DetailLocation	The Location of the detailed allocation, diversion, use, or return flow.	Header	1:1	Y		
1.0.6.9.1.9.3.1	StateCode	Code representing the two-digit abbreviation for the state.	string	2	Y	Y	
1.0.6.9.1.9.3.2	ReportingUnitIdentifier	A unique identifier assigned to the reporting unit by the reporting organization.	string	35	Y	N	
1.0.6.9.1.9.3.3	CountyFipsCode	County FIPS code (including the state FIPS code) representing the county.	string	5	N	Y	
1.0.6.9.1.9.3.4	HydrologicUnitCode	Code representing the USGS Hydrologic Unit (or HUC) at the most detailed level that the assignment can be made (6-digit being the lowest level of resolution allowed). Leading 0's should be included.	string	12	N	Y	
1.0.6.9.1.9.3.5	LatitudeNumber	Latitude of the diversion, withdrawal, well location in decimal degrees	decimal	18,8	N	N	
1.0.6.9.1.9.3.6	LongitudeNumber	Longitude of the diversion, withdrawal, well location location in decimal degrees	decimal	18,8	N	N	
1.0.6.9.1.9.3.7	EPSGCode	Code for projection, with a preference for WGS_1984, EPSG of 4326	decimal	10	N	N	Preference for EPSG of 4326 (GCS WGS 1984)
1.0.6.9.1.9.3.8	NHDNetworkStatus	Whether or not the diverersion, withdrawal, well location is indexed to the USGS NHD network	string	5	Y	Y	Y or N values
1.0.6.9.1.9.3.9	NHDVersion	Version number of the NHD used for the indexing	string	5	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.9.3.10	NHDUpdateDate	If the diverersion, withdrawal, well location is indexed to the USGS NHD, this provides the date it was indexed to the NHD.	Date		N	Y	Required if NHDNetworkStatus is Y
1.0.6.9.1.9.3.11	NHDReachCode	If the diverersion, withdrawal, well location is indexed to the USGS NHD, this provides the Reach Code Identifier	decimal	18,8	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.9.3.12	NHDMeasureNumber	If the diverersion, withdrawal, well location is indexed to the USGS NHD, this provides the Measure number that provides the event's location on a reach.	decimal	18,8	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.9.3.13	WFSReference	Web Feature Service feature reference for the point of diversion	Header	1:1	N	N	
1.0.6.9.1.9.3.13.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference

ID	Name	Description	Type	Card/Size	Required	Flag	Notes
1.0.6.9.1.9.4	DiversionAmount	Defines the amount of water attributed to the entire allocation. If an allocation has diversions associated with it, then report this information for each diversion.	Header	1:MANY	Y		
1.0.6.9.1.9.4.1	WaterAllocated	The amount of water allocated for this allocation or diversion.	Header	1:1	Y		
1.0.6.9.1.9.4.1.1	BeneficialUse	Beneficial use for which the water is used.	Header	1:MANY	Y		At least one instance of Allocation Use is required if AllocationSummary is reported.
1.0.6.9.1.9.4.1.1.1	BeneficialUseContext	Owner for the use type (i.e. state abbreviation)	string	10	Y	Y	Required if WaterUse is reported.
1.0.6.9.1.9.4.1.1.2	BeneficialUseTypeName	Name of the beneficial use.	string	35	Y	Y	Required if WaterUse is reported.
1.0.6.9.1.9.4.1.2	AllocatedVolume	The volume of water allocated for this allocation or diversion.	Header	0:1	Conditional		Either AllocatedVolume, AllocatedRate, or both must be provided.
1.0.6.9.1.9.4.1.2.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AvailabilityAmount is reported
1.0.6.9.1.9.4.1.2.2	AmountUnitsCode	Unit of measure	string	10	Y	Y	Required if AvailabilityAmount is reported
1.0.6.9.1.9.4.1.3	AllocatedRate	The rate at which water can be diverted for this allocation or diversion.	Header	0:1	Conditional		Either AllocatedVolume, AllocatedRate, or both must be provided.
1.0.6.9.1.9.4.1.3.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AvailabilityAmount is reported
1.0.6.9.1.9.4.1.3.2	AmountUnitsCode	Unit of measure	string	10	Y	Y	Required if AvailabilityAmount is reported
1.0.6.9.1.9.4.1.4	SourceTypeName	Water Source: Ground, Surface, Reuse, Total	string	10	Y	Y	
1.0.6.9.1.9.4.1.5	FreshSalineIndicator	Indicates whether the source is fresh water, saline water, or represents the total of both.	string	10	Y	Y	
1.0.6.9.1.9.4.1.6	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.9.1.9.4.1.6.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.9.4.1.6.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.9.4.1.7	SourceName	Name of the Aquifer for groundwater sources or river basin for surface water sources.	string	60	N	N	
1.0.6.9.1.9.4.1.8	ActualFlow	The actual amount of water diverted at this diversion for the reporting period.	Header	0:MANY	Y		
1.0.6.9.1.9.4.1.8.1	ActualVolume	The actual volume of water diverted at this diversion for the reporting period.	Header	0:1	Conditional		Either ActualVolume or ActualRate must be reported, or both.
1.0.6.9.1.9.4.1.8.1.1	ActualAmountNumber	Amout of water diverted.	decimal	18,3	Y	N	
1.0.6.9.1.9.4.1.8.1.2	ActualAmountUnitsCode	Unit of measure	string	10	Y	Y	
1.0.6.9.1.9.4.1.8.1.3	ValueTypeCode	Indicator on how the actual amount was determined (i.e. calculated, measured, estimated, or reported).	string	1	Y	Y	
1.0.6.9.1.9.4.1.8.1.4	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Conditional		
1.0.6.9.1.9.4.1.8.1.4.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.9.1.9.4.1.8.1.4.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.9.1.9.4.1.8.1.4.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.9.1.9.4.1.8.1.4.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.9.1.9.4.1.8.1.4.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.9.1.9.4.1.8.2	ActualRate	The actual rate of water diverted at this diversion for the reporting period.	Header	0:1	Conditional		Either ActualVolume or ActualRate must be reported, or both.
1.0.6.9.1.9.4.1.8.2.1	ActualAmountNumber	Amout of water diverted.	decimal	18,3	Y	N	
1.0.6.9.1.9.4.1.8.2.2	ActualAmountUnitsCode	Unit of measure	string	10	Y	Y	

1.0.6.9.1.9.4.1.8.2.3	ValueTypeCode	Indicator on how the actual amount was determined (i.e. calculated, measured, estimated, or reported).	string	1	Y	Y	
1.0.6.9.1.9.4.1.8.2.4	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Conditional		
1.0.6.9.1.9.4.1.8.2.4.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.9.1.9.4.1.8.2.4.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.9.1.9.4.1.8.2.4.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.9.1.9.4.1.8.2.4.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.9.1.9.4.1.8.2.4.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.9.1.9.4.1.8.3	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.9.1.9.4.1.8.3.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.9.4.1.8.3.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	

ID	Element	Description	Type	Length			Notes
1.0.6.9.1.10	ConsumptiveUse	Information about the use of the water	Header	0:MANY	N		
1.0.6.9.1.10.1	UserIdentifier	A unique identifier for the water user	string	50	Y	N	
1.0.6.9.1.10.2	UserName	The name of the water user	string	100	N	N	
1.0.6.9.1.10.3	DetailLocation	The location of the detailed allocation, diversion, use, or return flow	Header	1:MANY	Y		
1.0.6.9.1.10.3.1	StateCode	Code representing the two-digit abbreviation for the state.	string	2	Y	Y	
1.0.6.9.1.10.3.2	ReportingUnitIdentifier	A unique identifier assigned to the reporting unit by the reporting organization.	string	35	Y	N	
1.0.6.9.1.10.3.3	CountyFipsCode	County FIPS code (including the state FIPS code) representing the county.	string	5	N	Y	
1.0.6.9.1.10.3.4	HydrologicUnitCode	Code representing the USGS Hydrologic Unit (or HUC) at the most detailed level that the assignment can be made (6-digit being the lowest level of resolution allowed). Leading 0's should be included.	string	12	N	Y	
1.0.6.9.1.10.3.5	LatitudeNumber	Latitude of the consumptive use location in decimal degrees	decimal	18,8	N	N	
1.0.6.9.1.10.3.6	LongitudeNumber	Longitude of the consumptive use location in decimal degrees	decimal	18,8	N	N	
1.0.6.9.1.10.3.7	EPSGCode	Code for projection, with a preference for WGS_1984, EPSG of 4326	decimal	10	N	N	Preference for EPSG of 4326 (GCS WGS 1984)
1.0.6.9.1.10.3.8	NHDNetworkStatus	Whether or not the consumptive use location is indexed to the USGS NHD network	string	5	Y	Y	Y or N values
1.0.6.9.1.10.3.9	NHDVersion	Version consumptive use of the NHD used for the indexing	string	5	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.10.3.10	NHDUpdateDate	If the consumptive use location is indexed to the USGS NHD, this provides the date it was indexed to the NHD.	Date		N	Y	Required if NHDNetworkStatus is Y
1.0.6.9.1.10.3.11	NHDReachCode	If the consumptive use location is indexed to the USGS NHD, this provides the Reach Code Identifier	decimal	18,8	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.10.3.12	NHDMeasureNumber	If the consumptive use location is indexed to the USGS NHD, this provides the Measure number that provides the event's location on a reach.	decimal	18,8	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.10.3.13	WFSReference	Web Feature Service feature reference for the place of use	Header	1:1	N	N	
1.0.6.9.1.10.3.13.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference
1.0.6.9.1.10.4	UseEstimate	Estimate of water use	Header	1:MANY	N		
1.0.6.9.1.10.4.1	BeneficialUseContext	Owner for the use type (i.e. state abbreviation)	string	10	Y	Y	
1.0.6.9.1.10.4.2	BeneficialUseTypeName	Name of the beneficial use.	string	35	Y	Y	
1.0.6.9.1.10.4.3	UseAmount	Actual water used for detail data section	Header	1:1	N		
1.0.6.9.1.10.4.3.1	SourceTypeName	Water Source: Ground, Surface, Reuse, Total	string	10	N	Y	
1.0.6.9.1.10.4.3.2	FreshSalineIndicator	Indicates whether the source is fresh water, saline water, or represents the total of both.	string	10	N	Y	
1.0.6.9.1.10.4.3.3	SourceName	Name of the Aquifer for groundwater sources or river basin for surface water sources.	string	60	N	N	
1.0.6.9.1.10.4.3.4	CommunityWaterSupply	Additional Metadata for community water supply uses.	Header	0:MANY	N		
1.0.6.9.1.10.4.3.4.1	TotalPopulationServedNumber	Population served by the community water supply	integer	18	Y	N	Required if CommunityWaterSupply is reported
1.0.6.9.1.10.4.3.4.2	CommunityWaterSupplyName	Name of the Community	string	60	N	N	
1.0.6.9.1.10.4.3.5	IrrigationWaterSupply	Additional Metadata for irrigation water supply uses	Header	0:MANY	N		
1.0.6.9.1.10.4.3.5.1	IrrigationMethodName	Name of the method used to irrigate (i.e. sprinkler, flood, microirrigation, etc.)	string	30	N	Y	
1.0.6.9.1.10.4.3.5.2	AcresIrrigatedNumber	Number of acres irrigated using this method.	decimal	18,3	Y	N	Required if IrrigationWaterSupply is reported.
1.0.6.9.1.10.4.3.5.3	CropTypeName	Crop type being irrigated	string	60	N	Y	
1.0.6.9.1.10.4.3.6	ThermoElectricWaterSupply	Additional Metadata for thermoelectric water supply uses.	Header	0:MANY	N		
1.0.6.9.1.10.4.3.6.1	GeneratorTypeName	The type of generator used to create electricity.	string	60	Y	Y	Required if ThermoElectricWaterSupply is reported.
1.0.6.9.1.10.4.3.6.2	PowerCapacityNumber	The amount of power capacity in megawatt-hours.	decimal	18,3	Y	N	

1.0.6.9.1.10.4.3.7	UseVolume	The actual volume of water diverted at this diversion for the reporting period.	Header	0:MANY	N		Required if UseAmount is reported.
1.0.6.9.1.10.4.3.7.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AvailabilityAmount is reported
1.0.6.9.1.10.4.3.7.2	AmountUnitsCode	Unit of measure	string	10	Y	Y	Required if AvailabilityAmount is reported
1.0.6.9.1.10.4.3.7.3	ValueTypeCode	Indicator on how the actual amount was determined (i.e. calculated, measured, estimated, or reported).	string	1	Y	Y	
1.0.6.9.1.10.4.3.7.4	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Conditional		
1.0.6.9.1.10.4.3.7.4.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.9.1.10.4.3.7.4.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.9.1.10.4.3.7.4.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.9.1.10.4.3.7.4.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.9.1.10.4.3.7.4.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.9.1.10.4.3.7.5	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.9.1.10.4.3.7.5.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.10.4.3.7.5.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	

1.0.6.9.1.11	ReturnFlow	The amount and location of water returned.	Header	0:MANY	N		
1.0.6.9.1.11.1	ReturnFlowIdentifier	Unique identifier for the return flow.	string	35	Y	N	
1.0.6.9.1.11.2	ReturnFlowName	Name for the return flow.	string	80	N	N	
1.0.6.9.1.11.3	DetailLocation	The Location of the detailed allocation, diversion, use, or return flow.	Header	1:1	Y		
1.0.6.9.1.11.3.1	StateCode	Code representing the two-digit abbreviation for the state.	string	2	Y	Y	
1.0.6.9.1.11.3.2	ReportingUnitIdentifier	A unique identifier assigned to the reporting unit by the reporting organization.	string	35	Y	N	
1.0.6.9.1.11.3.3	CountyFipsCode	County FIPS code (including the state FIPS code) representing the county.	string	5	N	Y	
1.0.6.9.1.11.3.4	HydrologicUnitCode	Code representing the USGS Hydrologic Unit (or HUC) at the most detailed level that the assignment can be made (6-digit being the lowest level of resolution allowed). Leading 0's should be included.	string	12	N	Y	
1.0.6.9.1.11.3.5	LatitudeNumber	Latitude of the return flow location in decimal degrees	decimal	18,8	N	N	
1.0.6.9.1.11.3.6	LongitudeNumber	Longitude of the return flow location in decimal degrees	decimal	18,8	N	N	
1.0.6.9.1.11.3.7	EPSGCode	Code for projection, with a preference for WGS_1984, EPSG of 4326	decimal	10	N	N	Preference for EPSG of 4326 (GCS WGS 1984)
1.0.6.9.1.11.3.8	NHDNetworkStatus	Whether or not the return flow location is indexed to the USGS NHD network	string	5	Y	Y	Y or N values
1.0.6.9.1.11.3.9	NHDVersion	Version return flow of the NHD used for the indexing	string	5	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.11.3.10	NHDUpdateDate	If the return flow location is indexed to the USGS NHD, this provides the date it was indexed to the NHD.	Date		N	Y	Required if NHDNetworkStatus is Y
1.0.6.9.1.11.3.11	NHDReachCode	If the return flow location is indexed to the USGS NHD, this provides the Reach Code Identifier	decimal	18,8	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.11.3.12	NHDMeasureNumber	If the return flow location is indexed to the USGS NHD, this provides the Measure number that provides the event's location on a reach.	decimal	18,8	N	N	Required if NHDNetworkStatus is Y
1.0.6.9.1.11.3.13	WFSReference	Web Feature Service feature reference for the return flow	Header	1:1	N	N	
1.0.6.9.1.11.3.13.1	WFSFeatureIdentifier	The feature ID reference number	string	12	Y	N	Required if there is a WFS Reference
1.0.6.9.1.11.4	ReturnFlowAmount	The actual amount of water returned at this location	Header	1:MANY	Y		
1.0.6.9.1.11.4.1	ReturnVolume	The actual volume of water returned at this location for the reporting period	Header	0:1	Conditional		Either ReturnVolume, ReturnRate, or both must be provided.
1.0.6.9.1.11.4.1.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AvailabilityAmount is reported
1.0.6.9.1.11.4.1.2	AmountUnitsCode	Unit of measure	string	10	Y	Y	Required if AvailabilityAmount is reported
1.0.6.9.1.11.4.1.3	ValueTypeCode	Indicator on how the actual amount was determined (i.e. calculated, measured, estimated, or reported).	string	1	Y	Y	
1.0.6.9.1.11.4.1.4	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Conditional		
1.0.6.9.1.11.4.1.4.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.9.1.11.4.1.4.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.9.1.11.4.1.4.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.9.1.11.4.1.4.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.9.1.11.4.1.4.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.9.1.11.4.2	ReturnRate	The actual rate of water returned at this location for the reporting period.	Header	0:1	Conditional		Either ReturnVolume, ReturnRate, or both must be provided.
1.0.6.9.1.11.4.2.1	AmountNumber	Value reported, measured, calculated, or estimated.	decimal	18,3	Y	N	Required if AvailabilityAmount is reported

1.0.6.9.1.11.4.2.2	AmountUnitsCode	Unit of measure	string	10	Y	Y	Required if AvailabilityAmount is reported
1.0.6.9.1.11.4.2.3	ValueTypeCode	Indicator on how the actual amount was determined (i.e. calculated, measured, estimated, or reported).	string	1	Y	Y	
1.0.6.9.1.11.4.2.4	Method	Method used to determine the metric, calculation or estimate.	Header	1:1	Conditional		
1.0.6.9.1.11.4.2.4.1	MethodContext	The owner of the method. Methods should be registered with the exchange which is managed by WSWC	string	10	Y	Y	Required if Method is reported
1.0.6.9.1.11.4.2.4.2	MethodName	The name of the method used.	string	35	Y	Y	Required if Method is reported
1.0.6.9.1.11.4.2.4.3	DataCoverageValue	An indicator of data coverage (i.e., spatial coverage or completeness of the data)	decimal	18,3	N	Y	Should be reported as a percentage
1.0.6.9.1.11.4.2.4.4	DataQualityValue	An indicator of data quality or grading (e.g. fair, good, best, unreported), or using the NEMS data quality grading system.	decimal	18,3	N	N	Any grading indicator is acceptable, but please use NEMS quality indicators if possible.
1.0.6.9.1.11.4.2.4.5	DataConfidenceValue	An indicator of data confidence, should be a confidence interval (e.g. 90%, 50%, etc.)	decimal	18,3	N	N	Should be reported as a percentage
1.0.6.9.1.11.4.2.5	TimeFrame	Time frame for the availability estimate, allocation, diversion, or use.	Header	1:1	Y		
1.0.6.9.1.11.4.2.5.1	TimeFrameStartName	Starting date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	
1.0.6.9.1.11.4.2.5.2	TimeFrameEndName	Ending date for the availability estimate, allocation, diversion, or use. Report as MM/DD.	string	5	Y	N	