

TECHNICAL REPORT

Remediation and Treatment Technology Development and Support for DOE Oak Ridge Office: Geodatabase Development for Hydrological Modeling Support

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Executive Summary

During FY11 (FIU Year 2), researchers at the Applied Research Center (ARC) at Florida International University (FIU) developed a geodatabase to support the hydrological work being performed at the Oak Ridge Reservation (ORR). This geodatabase serves as a centralized data management system, facilitating storage, accessibility, concurrent editing and import/export of large amounts of spatial and temporal model configuration data as well as model output data that is specific to the hydrologic models being used for simulations of contaminant fate and transport. The ORR Geodatabase was developed based on the ArcHydro and ArcGIS Base Map data models with modifications made for project specific input parameters. The significance of this approach was to ensure its replicability for potential application at other DOE sites.

The work for FY12 (FIU Year 3) extended the geodatabase capabilities by utilizing ArcGIS ModelBuilder coupled with Python scripting for querying data within the existing ORR geodatabase, for generating maps and for automating many of the repetitive geoprocessing tasks required for pre- and post-processing of hydrological modeling data. ModelBuilder was also used to document geoprocessing workflow diagrams for reporting purposes. An investigation of easily downloadable free/open source geographic information systems (GIS) software for viewing and querying model data and for generating maps, graphs and reports, was also conducted to determine a simple way of sharing project derived data with project stakeholders such as U.S. Department of Energy (DOE) personnel and ORR site contractors. This research has been extended into FIU's Year 4 work scope to determine the best way to publish this data via the Internet over a secured platform through collaboration with ARC's information technology (IT) personnel.

The work scope planned for FY13 (FIU Year 4) outlined in this report involves the update of the existing East Fork Poplar Creek (EFPC) geodatabase with more recent ORR site monitoring data available from various sources including OREIS, USGS, NRCS STATSGO or SSURGO soil databases, and the U.S. EPA MRLC or NALC land cover databases. Additional customized Python scripts have also been developed to further enhance the database capabilities to perform statistical analyses by implementing a library of scripts which can be coupled with other existing libraries used for mathematics, science, and engineering such as NumPy and SciPy. Training has also been provided to FIU undergraduate students (DOE Fellows) on how to update, query and perform geoprocessing tasks within the ArcGIS environment.

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Introduction

FIU-ARC has been providing technical assistance and performing research on mercury remediation at the Oak Ridge Reservation (ORR), TN, to support their remediation efforts through hydrological modeling in order to provide a better understanding of the fate and transport of inorganic and organic pollutants of concern with a focus on mercury (Hg). FIU developed a geodatabase to support the hydrological modeling work performed by FIU, which involves the use of three integrated watershed models for the Y-12 National Security Complex, White Oak Creek (WOC), and East Fork Poplar Creek (EFPC) to simulate the fate and transport of contaminants. More than a hundred simulations were completed for the purpose of calibrating the models, deriving model uncertainties, and for providing the analysis of remediation scenarios, resulting in gigabytes of simulation data. Therefore, there was a need for an advanced spatial data structure that would be used to address the management, processing, and analysis of spatial and temporal numerical modeling data derived from multiple sources, and to produce hydrogeological maps for visualization.

The ORR Geodatabase is a multiuser relational database management system (RDBMS) that was initially built upon a Microsoft SQL Server platform developed using Environmental Systems Research Institute (ESRI) ArcSDE technology. The system was deployed on an advanced Windows server with the latest technology and hardware and provides a user interface which facilitates data access, database connectivity, cryptography, web application development, numeric algorithms, and network communications. The system has since been updated to ArcGIS for Server to facilitate the sharing of GIS data and maps with project stakeholders as web services. The ArcGIS for Server system enables the hosting of GIS resources in-house and allows client applications, such as web mapping applications and mobile devices, to use and interact with these resources.

The existing geodatabase structure developed for the hydrological modeling work at ORR was structured to be replicable for application at other DOE sites and serves as a centralized data management system, providing access to data generated from simulations of contaminant fate and transport to all users and facilitating storage, concurrent editing and import/export of model configuration and output data that is specific to the hydrologic and transport models being used.

The ORR geodatabase was configured for concurrent multi-user access and editing capability, adhering to the appropriate security and quality assurance protocols necessary to maintain data integrity. This process exerts control on the type of access all users have to the geodatabase and its datasets, and enables specification of user data management privileges. Connection to the geodatabase requires Windows-authenticated credentials, and permissions are assigned to users according to the existing roles contained in SQL Server which already have predefined sets of permissions; however, the option to create new roles and set associated permissions is also possible if necessary. Windows authentication for access to the geodatabase was selected for simple configuration utilizing a certificate-based security mechanism, which is more secure than an operating system (OS)-based authentication. Besides the FIU-ARC firewalls and the built-in software and hardware security protocols, the geodatabase resides on computers which must adhere to the FIU's University Technology Services (UTS) Security and IT Policies which are outlined in detail at <http://it.fiu.edu/security/index.shtml>.

The capabilities of the geodatabase have also been extended by utilizing ArcGIS ModelBuilder coupled with Python scripting for querying data within the existing EFPC geodatabase, for generating maps and for automating many of the repetitive geoprocessing tasks required for pre- and post-processing of hydrological modeling data. ModelBuilder has also been used to document geoprocessing workflow diagrams for reporting purposes.

This document provides an account of the work carried out during FY13 (FIU Year 4) which involves an update of the existing EFPC geodatabase with more recent ORR site monitoring data available from various sources including OREIS, USGS, NRCS STATSGO or SSURGO soil databases, and the U.S. EPA MRLC or NALC land cover databases; and development of additional customized Python scripts to further enhance the database capabilities to perform statistical analyses by implementing a library of scripts which can be coupled with other existing libraries used for mathematics, science, and engineering such as NumPy and SciPy. Training has also been provided to FIU undergraduate students (DOE Fellows) on how to update, query and perform geoprocessing tasks within the ArcGIS environment.

An investigation of easily downloadable free/open source geographic information systems (GIS) software for viewing and querying model data and for generating maps, graphs and reports, was

also conducted to determine a simple way of sharing project derived data with project stakeholders such as U.S. Department of Energy (DOE) personnel and ORR site contractors. During a project review televideoconference between FIU and DOE held 04/30/13, DOE-HQ expressed concerns regarding the security aspect of sharing the geodatabase. As a result, research is also being conducted to determine the best way to publish project data via the Internet over a secured platform through collaboration with ARC's IT personnel.

Technical Approach

This task provides support to the hydrological modeling work being performed by FIU-ARC at the Oak Ridge Reservation (ORR) through development of a GIS-based database (geodatabase) which provides an advanced spatial data structure for management, processing, and analysis of spatial and temporal numerical modeling data derived from multiple sources. Work carried out during FIU Year 4 has included an update of the existing geodatabase with more recent ORR site monitoring data; development of additional customized Python scripts to further enhance the database capabilities to perform statistical analyses by implementing a library of scripts which can be coupled with other existing libraries used for mathematics, science, and engineering such as NumPy and SciPy; training of FIU undergraduate students (DOE fellows) on how to update, query and perform geoprocessing tasks within the ArcGIS environment; and research to determine the best way to share project data via the Internet over a secured platform.

Update of the ORR Geodatabase

The accuracy and predictive forecasting ability of the hydrological models largely depend on the availability of timeseries data (daily/monthly/annual) as well as the period of time this data covers. The various ORR site monitoring data sources used in this project such as OREIS, USGS, NRCS STATSGO or SSURGO soil databases, and the U.S. EPA MRLC or NALC land cover databases, are being constantly updated and as such, it is necessary to periodically download and update the ORR geodatabase with more recent data. Table 1 below shows the model configuration files that are currently stored in the ORR Geodatabase that have been recently updated. The GIS data derived from OREIS has been replaced with the 2006 flyover vector and raster data. Updated timeseries data from OREIS for parameters such as flow/discharge, chemical contaminant concentrations, conductivity, surface water depth, depth to groundwater, have also been downloaded and used in the models and resulting project-derived simulation data added to the geodatabase.

Table 1. Model Configuration Files Stored in the ORR Geodatabase

Spatial Data	Characteristics Represented
Admin_Features	EFPC, WOC, Y-12 & OSY Model domains (polygons)
	ORR Boundary
Admin_GRIDs	Model domains (GRIDs)
Conductivity_GRIDs	Hydraulic conductivity GRIDs
Contaminant_Conc_Features	Monitoring points (has associated timeseries attribute data)
	Plume Contours
Contaminant_Conc_GRIDs	Interpolated contaminant plumes (GRIDs)
DEMs	Clinch River, EFPC & WOC Watershed DEMs
Digital_Orthophotos	ORR DOQs (.bmp)
	Drainage Time Constant, Drainage Codes, Detention Storage (GRIDs)
Drainage_GRIDs	
GW_Features	Groundwater level contours
GW_GRIDs	Groundwater level GRIDs
	Watersheds, subwatersheds, catchments, hydroareas (lakes/ponds) (polygons)
Hydro Features	
	Floodplain polygons
	Hydrography, Hydrodrainage, hydrostructures (polylines)
Impervious_GRIDs	Paved runoff coefficient (GRID)
Landcover_Landuse_Features	Landuse/Landcover polygons
Landcover_Landuse_GRIDs	Vegetation grid codes
Manning	Manning's coefficients (GRIDs)
Monitoring_Stations	USGS SW monitoring stations, outfalls, GW monitoring wells
	Rivers, streams, reaches, cross sections, diversion ditch, utilities (polylines)
Network_Features	
	Nodes (points)
	Buildings, obscured areas, natural outlines, man-made outlines (polygons)
Physical_Features	
	Margins, man-made structures (polylines)
Soils	Geology, soils (polygons)
Topo_Features	Elevation contours
Transport_Features	Roads, railroads, transportation structures (polylines)
Temporal Data	Characteristics Represented
Monthly_RF_TS	Monthly rainfall timeseries
Flow_Aug_TS	Flow augmentation timeseries
DHI_Timeseries	Flow rate/discharge timeseries

Appendix A “ArcGIS Diagrammer Data Report” and Appendix B “ArcGIS Diagrammer Schema Report” contain details of the geodatabase data and schema generated using the ArcGIS Geodatabase Diagrammer utility for ArcGIS 10.2. ArcGIS Diagrammer is essentially a productivity tool used by GIS professionals to create, edit or analyze geodatabase schema. It generates diagrams and reports in the form of editable graphics within an interface similar to Microsoft Visual Studio. It serves as a visual editor which accepts XML workspace documents that are created from ESRI’s ArcMap or ArcCatalog. The reports provided in Appendix A and Appendix B depict the data structure of the ORR geodatabase and details of the features, rasters and tables that have been used or generated during hydrological model development, as well as any existing relationships and spatial references.

Enhancement of the ORR Geodatabase Capabilities

The essence of this task is to provide modelers with ease of access to model data and pre-processing capability for files to be used as input into the MIKE SHE/11 models. Post-processing of model results is also possible for analysis, use in reports and map production. Simple tasks such as retrieving data from the geodatabase; pre-processing the data; exporting for use in hydrological model development; subsequent import and post-processing of model data; data analysis; and production of graphs, maps and reports are repetitive but necessary. The use of Python scripts and ArcGIS ModelBuilder assists in automating these tasks which saves time and can facilitate batch processing of this data. One of the objectives of this task, therefore, was to develop a reusable GIS tool, which can iterate over each set of the spatial input data parameters, perform geoprocessing actions and calculate statistical parameters.

FIU’s Year 3 work scope involved the development of customized Python scripts which required additional programming of built-in automated geoprocessing tools to call or retrieve data from the ORR geodatabase. A toolbox which combines built-in ArcGIS geoprocessing tools coupled with customized Python scripts was therefore developed and calibrated for use with the East Fork Poplar Creek (EFPC) model. This toolbox, however, is a scalable and reusable application that can be implemented for other DOE sites. The tools and scripts developed automate the query and retrieval of timeseries data, including contaminant flow and transport parameters (e.g. mercury concentration, surface water and groundwater flow, discharge, groundwater level, etc.).

from the existing ORR geodatabase. The ArcGIS data model iterates through selected features and exports the results in tabular format. The toolbox also allows the ArcGIS program to iterate over several GIS files for pre- or post-processing of data to be used in or that are derived from hydrological modeling. ArcGIS ModelBuilder can then also be used to document the processes and workflows employed.

Part of FIU's Year 4 work scope has involved the development of additional customized Python scripts (see Appendix C – “Representative Python Scripts for Statistical Analysis of Hydrological Model Data”) to further enhance the database capabilities to perform statistical analyses on model output data by implementing a library of scripts which can be coupled with other existing libraries used for mathematics, science, and engineering such as NumPy and SciPy. The goal was to create scripts to calculate model performance statistics for a subset of existing flow and contaminant monitoring stations. Data for the selected stations are available, in most cases, on an hourly basis and for some stations on a daily basis only. The following lists some of the parameters and their equations for which scripts have been developed.

Parameters:

1. **ME:** mean error equal to the sum of the difference observed minus calculated divided by the total number of samples
2. **MAE:** sum of the absolute difference of observed minus calculated divided by the total number of samples
3. **RMSE:** root mean square of the observed minus computed
4. **STD:** standard deviation of the residual
5. **NS:** fraction of the error relative to the measured fluctuation
6. **COVAR:** standard deviation of the residual
7. **COR:** covariance of the observed and modeled stage divided by the product of the standard deviations
8. **PEV:** a measure of how much two variables change with respect to each other (in this report the PEV factor is provided as fraction rather than a percent).

Equations:

1. **Covariance (CoVar)** is a measure of how much two variables change with respect to each other:

$$CoVar = \frac{\sum_{t=1}^T (h_o^t - \bar{h}_o) (h_m^t - \bar{h}_m)}{T}$$

T is number of timesteps
 h_o^t is observed stage at time t
 h_m^t is modeled stage at time t
 \bar{h}_o is average observed stage
 \bar{h}_m is average modeled stage

2. **Correlation (Cor)** is defined as the covariance of the observed and modeled stage divided by the product of the standard deviations. The correlation and covariance describe the degree of similarity between the model and field data sets. The correlation is dimensionless and describes the degree to which the two data sets rise and fall in a similar manner.

$$Cor = \frac{\sum_{t=1}^T (h_o^t - \bar{h}_o) (h_m^t - \bar{h}_m)}{\sqrt{\sum_{t=1}^T (h_o^t - \bar{h}_o)^2 \sum_{t=1}^T (h_m^t - \bar{h}_m)^2}}$$

3. **The Percent Explained Variance (PEV)** compares the variance of the residual to the variance of the measured data. This yields a percentage of the measured variability that is represented by the model. The Percent Explained Variance is defined as:

$$PEV = 100\% * \left[1 - \left(\frac{\sum_{t=1}^T [(h_m^t - h_o^t) - \left(\frac{\sum_{t=1}^T (h_m^t - h_o^t)}{T} \right)]^2}{\sum_{t=1}^T (h_o^t - \bar{h}_o)^2} \right) \right]$$

4. **The Nash-Sutcliffe model efficiency coefficient (NS)** compares the residual squared to the measured variance. The Nash-Sutcliffe Coefficient yields a percentage of the error relative to the measured fluctuation. The *NS* is sensitive to mean differences in measured and computed, which can yield large negative values.

$$NS = 1 - \frac{\sum_{t=1}^T (h_m^t - h_o^t)^2}{\sum_{t=1}^T (h_o^t - \bar{h}_o)^2}$$

Secured Internet Map Publishing of Hydrological Model Data

An investigation was carried out to determine methods by which project-derived hydrological modeling data can be more easily shared with project stakeholders such as DOE personnel and ORR site contractors. The aim was to make observed and computed timeseries data available through a readily available online mapping interface to facilitate the sharing and dissemination of model output data. Data such as contaminant concentrations and surface/subsurface flow rates can be displayed through development of customized applications which utilize available software APIs. During a project review televideoconference between FIU and DOE held 04/30/13, DOE-HQ expressed concern regarding the security aspect of sharing the geodatabase with emphasis placed on the fact that the integrity of the data would need to be maintained and the cyber issues understood in addition to the software issues. Sharing via the web requires proper implementation of security protocols in terms of sharing the geodatabase and ensuring integrity of the data. FIU clarified that in addition to the FIU-ARC firewalls and the built-in software and hardware security protocols, all computers must adhere to the FIU's University Technology Services (UTS) Security and IT Policies which are outlined in detail at <http://it.fiu.edu/security/index.shtml>. Security measures such as password protection can also be implemented. In addition, there has been coordination with ARC's IT team to determine a means by which project-derived model data can be published via the Internet over a secured environment.

In preparation for implementing secure protocols for data access, ArcGIS 10.2 was deployed on a secure server and research is being conducted to determine the requirements for deploying hydrological model results from the server/PC onto the secured KM-IT platform that was

developed by FIU through Project 4. Users will be able to register with the KM-IT ArcGIS platform for authentication and authorization to access data. This will secure the integrity of the site-specific data considered sensitive to cyber compromise.

The ArcGIS for Server architecture being implemented (Figure 1) includes three software technologies including: (1) ArcMap for creating, editing, and viewing the geospatial data and maps; (2) ArcGIS Server, which provides the platform for storing and sharing GIS resources with the user community; and (3) the Web Adaptor, which adds an intermediate layer of protection between the end user viewing published maps and ArcGIS Server where the information is actually stored.

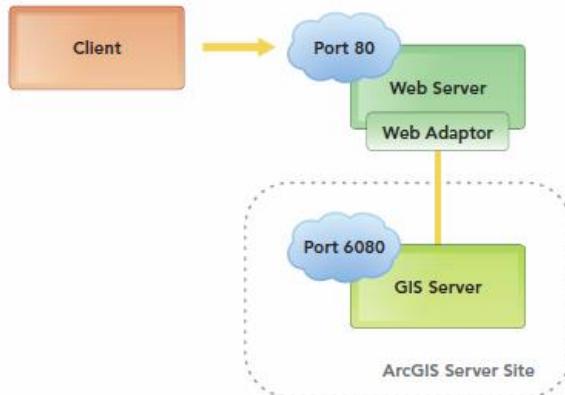


Figure 1. ArcGIS for Server architecture

In order to display project data on the web, a map containing GIS-based hydrological data was created using ArcMap and then published using ArcGIS Server. Once published on the server, the map and associated data files become accessible as a GIS service or web service through port 80. However, to add an extra layer of protection and control to the web service, ArcGIS Web Adaptor was installed on an ARC-FIU GIS server, which ensures restricted access to the GIS service exclusively through the Web Adaptor.

With the Web Adaptor installed, a website was created that communicates with the web adaptor and consumes the GIS web service information displaying it in an interactive map that users can view (Figure 2). The website uses ESRI's JavaScript API to create a map object from the web

service created and using the map information, generate different map layers which are added to the map object to show all the different features in the map document.

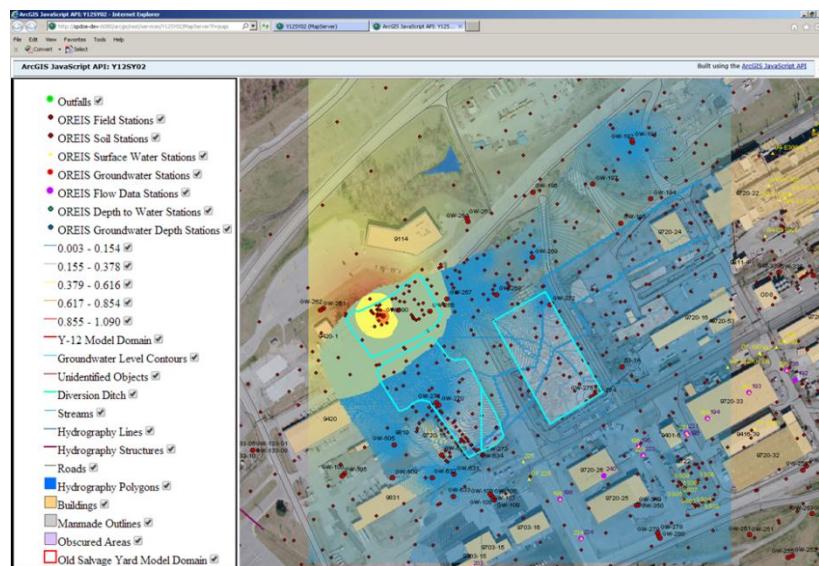


Figure 2. Preliminary website development.

ARC IT has also worked on a preliminary design for the web interface for this feature (see Figure 3 below).

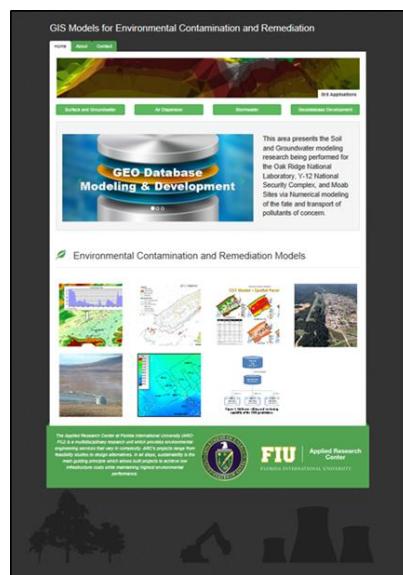


Figure 3. Preliminary design of web interface for the environmental contamination and remediation model.

A map Legend was also created to inform the user what the different geometries on the map represent. This functionality also uses JavaScript to retrieve the different map layer information from the web service and manipulates the web page to visually display this information to the user. Another feature added to the website is the ability to toggle different map layers on and off using checkboxes in the legend. Large maps can be crowded with many different layers and points of data, therefore the layer toggle feature allows the user to view meaningful layers of information and omit irrelevant data crowding the map. Zooming and panning are also features implemented on the map allowing users to move and pan to any location within the map object.

Further development of the website has incorporated a layer selection feature. This feature allows the user to select a layer from the Legend which will also highlight and select the respective layer on the map. The Layer Selection feature works in conjunction with the popup feature. Once a user has selected a Layer, it will then be possible to click on a particular feature on the map from that layer and a popup will appear displaying the feature's attribute data.

Work Summary

FIU's Year 4 work scope has involved an update of the existing geodatabase with recent ORR site monitoring data available from various sources including OREIS, USGS, NRCS STATSGO or SSURGO soil databases, and the U.S. EPA MRLC or NALC land cover databases. FIU also developed additional customized Python scripts to perform statistical analyses on observed and computed data when coupled with other existing script libraries used for mathematics, science, and engineering such as NumPy and SciPy. Finally, an investigation was carried out to determine methods by which project-derived hydrological modeling data can be more easily shared with project stakeholders such as DOE personnel and ORR site contractors.

References

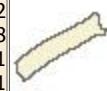
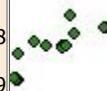
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Appendix A: ArcGIS Diagrammer Data Report

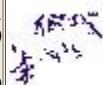
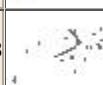
<u>ArcGIS Diagrammer</u>	
Report Creation	
Date	Thursday, April 10, 2014
Author	Lawrence/ARC-2481F4A8 on ARC-2481F4A8
System Information	
Operating System	Microsoft Windows NT 6.1.7601 Service Pack 1
.Net Framework	2.0.50727.5477
Diagrammer	10.0.1.0
Geodatabase	
Workspace Type	Database Connection
File	C:\Users\lawrence\AppData\Roaming\ESRI\Desktop10.2\ArcCatalog\ORR_GeodB.sde

Data Report

ObjectClass Name	Type	Geometry	Subtype	Total	Extent	Snapshot
ORR_GeodB.DBO.Admin_Features						
ORR_GeodB.DBO.domain_EFPC	Feature Class	Polygon	-	1	745462.4274 759759.336000003 177890.026900001 189776.924400002	
ORR_GeodB.DBO.domain_WOC	Feature Class	Polygon	-	1	749813.855999999 754110.923500001 176776.130800001 181566.498199999	
ORR_GeodB.DBO.ORR_Boundary_Polygon	Feature Class	Polygon	-	1	740897.648000002 762737.393299997 172436.423 186361.8125	
ORR_GeodB.DBO.Scrap_Yard	Feature Class	Polygon	-	2	755860.313600004 756112.826300003 183999.275899999 184279.2322	
ORR_GeodB.DBO.Scrapyard	Feature Class	Polygon	-	2	755784.380199999 756009.423900001 184038.085099999 184256.5099	
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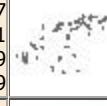
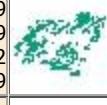
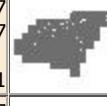
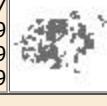
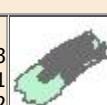
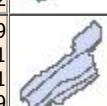
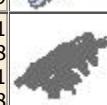
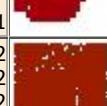
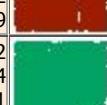
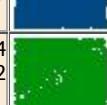
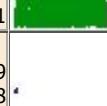
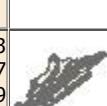
ORR_GeodB.DBO.Y12_model_domain_polygon	Feature Class	Polygon	-	1 754811.278700002 759767.336599998 182843.792300001 186574.551800001	
ORR_GeodB.DBO.CAD					
ORR_GeodB.DBO.Area	Feature Class	Polygon	-	0 784634.304870605 60 0 219305.377685547	
ORR_GeodB.DBO.Area_1	Feature Class	Polygon	-	0 784634.304870605 60 0 219305.377685547	
ORR_GeodB.DBO.CadDoc	Feature Class	Polygon	-	0 784634.304870605 1 0 219305.377685547	
ORR_GeodB.DBO.CadDoc_1	Feature Class	Polygon	-	0 784634.304870605 1 0 219305.377685547	
ORR_GeodB.DBO.Line	Feature Class	Polyline	-	0 784634.304870605 62 0 219305.377685547	
ORR_GeodB.DBO.Line_1	Feature Class	Polyline	-	0 784634.304870605 62 0 219305.377685547	
ORR_GeodB.DBO.Point	Feature Class	Point	-	0 No Extent	-
ORR_GeodB.DBO.Point_1	Feature Class	Point	-	0 No Extent	-
ORR_GeodB.DBO.Contaminant_Conc_Features					
ORR_GeodB.DBO.cis_1_2_Dichloroethene	Feature Class	Point	-	66 756196.5 757577.660999998 183956.5625 184947.386799999	
ORR_GeodB.DBO.dce_plume	Feature Class	Polyline	-	1637 755833.733499996 756234.444700003 183939.218199998 184364.110199999	
ORR_GeodB.DBO.dce_soil	Feature Class	Polyline	-	314 755833.733499996 756224.0814 183958.489399999 184360.484499998	
ORR_GeodB.DBO.dcesoilcnt	Feature Class	Polyline	-	393 755823.370200001 756255.171099998 183899.4925 184393.4727	
ORR_GeodB.DBO.dcesoilcontour	Feature Class	Polyline	-	379 755833.733499996 756234.444700003 183958.2764 184360.6558	
ORR_GeodB.DBO.Dichloroethene	Feature Class	Point	-	16 756305.2764 757069.2324 183939.660500001 184461.384599999	
ORR_GeodB.DBO.ocesoilcontour	Feature Class	Polyline	-	689 755833.733499996 756234.444700003 183939.218199998 184363.5977	
ORR_GeodB.DBO.PCE	Feature Class	Point	-	210 756188.809299998 757577.660999998 183939.660500001 184947.386799999	

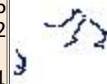
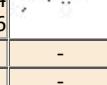
ORR_GeodB.DBO.PCE_Digitized	Feature Class	Polyline	-	4	755908.604599997 756160.1598 183950.8017 184331.407600001	
ORR_GeodB.DBO.PCE_GW_SY	Feature Class	Point	-	19	755823.370200001 756255.171099998 183899.4925 184392.676800001	
ORR_GeodB.DBO.pce_plume	Feature Class	Polyline	-	71	755833.733499996 756234.444700003 183940.9454 184355.474199999	
ORR_GeodB.DBO.PCE_PLUME_BD	Feature Class	Polygon	-	1	755832.577799998 756235.583999999 183938.531800002 184365.5623	
ORR_GeodB.DBO.pce_soil	Feature Class	Polyline	-	13486	755823.370200001 756255.171099998 183899.4925 184393.4727	
ORR_GeodB.DBO.pce_soil_1	Feature Class	Polyline	-	12715	755833.733499996 756234.444700003 183939.804900002 184364.110199999	
ORR_GeodB.DBO.Phase1_2ROD	Feature Class	Polygon	-	0	No Extent	-
ORR_GeodB.DBO.TCE	Feature Class	Point	-	209	756188.809299998 757577.660999998 183939.660500001 184947.386799999	
ORR_GeodB.DBO.TCE_digitized	Feature Class	Polyline	-	3	755910.716300003 756161.473999999 183960.1052 184327.4318	
ORR_GeodB.DBO.tce_plume	Feature Class	Polyline	-	165	755833.733499996 756234.444700003 183939.218199998 184363.230599999	
ORR_GeodB.DBO.tce_soil	Feature Class	Polyline	-	497	755833.733499996 756234.444700003 183939.218199998 184363.230599999	
ORR_GeodB.DBO.Vinyl_Chloride	Feature Class	Point	-	235	756188.809299998 757577.660999998 183939.660500001 184947.386799999	
ORR_GeodB.DBO.VOC_GW	Feature Class	Polygon	-	15	755874.027099997 758202.609899998 183757.052499998 185436.493500002	
ORR_GeodB.DBO.GW_Features						
ORR_GeodB.DBO.gw_levels	Feature Class	Polyline	-	28	754806.636399999 760083.641500004 182833.788699999 186777.011500001	
ORR_GeodB.DBO.Hydro_Features						
ORR_GeodB.DBO.ClinchRiver_Subwatershed	Feature Class	Polygon	-	1	729526.3913 754966.690200001 167356.9016 181572.9767	
ORR_GeodB.DBO.Floodplains	Feature Class	Polygon	-	0	No Extent	-
ORR_GeodB.DBO.Hydroareas_Y12_EFPC	Feature Class	Polygon	-	0	No Extent	-
ORR_GeodB.DBO.Hydrodrainage_ORR	Feature Class	Polyline	-	0	No Extent	-

ORR_GeodB.DBO.Hydrostructures_Y12_EFPC	Feature Class	Polyline	-	0	No Extent	-
ORR_GeodB.DBO.LowerClinch_HUC_06010207	Feature Class	Polygon	-	1	729504.0678 808267.011399999 167686.417300001 217803.038199998	
ORR_GeodB.DBO.merged_HL_hydrography_lines	Feature Class	Polyline	-	151	754249.987300001 761036.469999999 181500.0152 186750.059999999	
ORR_GeodB.DBO.merged_HP_hydrography_polys	Feature Class	Polygon	-	54	754250.0013 760457.259999998 181694.09 186701.260000002	
ORR_GeodB.DBO.merged_HS_hydrography_structures	Feature Class	Polyline	-	184	754440.130000003 760962.100000001 181700.530000001 186742.559999999	
ORR_GeodB.DBO.ORR_2006_hl_Merge	Feature Class	Polyline	-	1358	740249.946699999 762999.989799999 171000 186750.059999999	
ORR_GeodB.DBO.ORR_2006_hp_Merge	Feature Class	Polygon	-	544	740249.946699999 762999.990000002 171044.043699998 186750.059999999	
ORR_GeodB.DBO.ORR_2006_hs_Merge	Feature Class	Polyline	-	1068	740293.624600001 762999.989799999 171035.356899999 186747.440000001	
ORR_GeodB.DBO.ORR_Watersheds	Feature Class	Polygon	-	5	715838.827500001 767382.729999997 167356.9016 197345.917399999	
ORR_GeodB.DBO.wbd1004abc_a_tn	Feature Class	Polygon	-	1113	206634.0515 989351.982299998 72223.3165999986 262125.1028	
ORR_GeodB.DBO.WOC_Catchments	Feature Class	Polygon	-	23	749813.855999999 754110.923500001 176776.130800001 181566.498199999	
ORR_GeodB.DBO.WOC_WS	Feature Class	Polygon	-	1	749813.855999999 754110.923500001 176776.130800001 181566.498199999	
ORR_GeodB.DBO.LandCover_LandUse_Features						
ORR_GeodB.DBO.lancoverORR	Feature Class	Polygon	-	18883	729526.387100004 808398.358999997 167356.900400002 218910.3565	
ORR_GeodB.DBO.NCLD2001_001	Feature Class	Polygon	-	0	No Extent	-
ORR_GeodB.DBO.tnlandcov	Feature Class	Polygon	-	879700	206609.759999998 989269.0119 72037.9142999984 262023.710900001	
ORR_GeodB.DBO.WOC_LC	Feature Class	Polygon	-	165	749813.855999999 754110.923500001 176776.130800001 181566.498199999	
ORR_GeodB.DBO.Y12_LandUse	Feature Class	Polygon	-	649	754811.278700002 759767.336599998 182843.792300001 186574.551800001	
ORR_GeodB.DBO.Monitoring_Stations						

ORR_Geodb.DBO.OREIS_GWDEPTH2W_Stations_SY	Feature Class	Point	-		26	755705.4375 757050.4494 183508.5781 184417.9417	
ORR_Geodb.DBO.outfalls	Feature Class	Point	-		51	757266.789800003 758935.989699997 184569.620700002 185972.5068	
ORR_Geodb.DBO.USGS_stations	Feature Class	Point	-		28	745824.9846 758741.975400001 175059.3488 186856.179900002	
ORR_Geodb.DBO.Network_Features							
ORR_Geodb.DBO.diversion_ditch	Feature Class	Polyline	-		1	755577.5 758643 184129.5 186001	
ORR_Geodb.DBO.diversion_ditch_elevations	Feature Class	Polyline	-		2	755577.5 758643 184129.5 186001	
ORR_Geodb.DBO.NHDFlowline_0600102070105	Feature Class	Polyline	-		5955	730018.828699999 808060.729400001 167717.977499999 218557.8583	
ORR_Geodb.DBO.NHDFlowline_WOC	Feature Class	Polyline	-		29	750113.322300002 753938.605999999 177063.973099999 181078.938700002	
ORR_Geodb.DBO.nodes_WOC	Feature Class	Point	River Node Weir	218 0	218	745510.000100002 758930.440099999 178254.8649 189350.225499999	
ORR_Geodb.DBO.reaches_WOC	Feature Class	Polyline	-		0	No Extent	
ORR_Geodb.DBO.river_network	Feature Class	Polyline	-		5	755060 758950 183110 186080	
ORR_Geodb.DBO.streams	Feature Class	Polyline	-		5955	730018.828699999 808060.729400001 167717.977499999 218557.8583	
ORR_Geodb.DBO.streams_ddUBC	Feature Class	Polyline	-		5	755109.658699997 756866.171899997 183102.793200001 185092.140299998	
ORR_Geodb.DBO.streams_ddUEFPC	Feature Class	Polyline	-		3	756876.663099997 758944.298 184563.475000001 186013.2806	
ORR_Geodb.DBO.streams_EFPC	Feature Class	Polyline	-		283	745467.001800001 758926.383199997 178262.186900001 189355.476799998	
ORR_Geodb.DBO.streams_UBC	Feature Class	Polyline	-		5	755109.658699997 755774.413500004 183102.793200001 184059.965300001	
ORR_Geodb.DBO.streams_UFPSC	Feature Class	Polyline	-		1	757257.051700003 758943.962899998 184563.422800001 186078.1492	

ORR_Geodb.DBO.tn_streams	Feature Class	Polyline	-	163409	90.3099000006914 81.6481000036001 34.9829000011086 36.6779999993742	
ORR_Geodb.DBO.Utilities	Feature Class	Polyline	-	1943	738499.949199997 767103.154700004 171000 190768.2093	
ORR_Geodb.DBO.waterbody	Feature Class	Polygon	-	859	730432.9212 805476.223399997 168813.524599999 217147.915600002	
ORR_Geodb.DBO.xns_WOC	Feature Class	Polyline	-	0	No Extent	-
ORR_Geodb.DBO.Physical_Features						
ORR_Geodb.DBO.building_WOC	Feature Class	Polygon	-	427	750843.240000002 753737.259999998 177117.890000001 179854.43	
ORR_Geodb.DBO.Buildings_98_ORR	Feature Class	Polygon	-	1986	743098.100000001 761139.189999998 174837.260000002 186275.699999999	
ORR_Geodb.DBO.Buildings93	Feature Class	Polygon	-	24353	738499.949199997 768250.027900003 171000 193750.043200001	
ORR_Geodb.DBO.Man_Made_Outlines	Feature Class	Polygon	-	379	738778.704599999 767743.876000002 171315.102899998 193750.043200001	
ORR_Geodb.DBO.Man_Made_Struct	Feature Class	Polyline	-	14113	738499.949199997 768250.027900003 171000 193750.043200001	
ORR_Geodb.DBO.Man_Made_Struct_Y12_EFPC	Feature Class	Polyline	-	4040	745518.973800004 760304.089400001 178892.66 189643.129299998	
ORR_Geodb.DBO.Margin	Feature Class	Polyline	-	25345	738499.949199997 768250.027900003 171000 193750.043200001	
ORR_Geodb.DBO.merged_BO_building_rooflines	Feature Class	Polygon	-	2656	754250.000600003 760998.944700003 181694.4756 186750.059999999	
ORR_Geodb.DBO.merged_BO_polyline	Feature Class	Polyline	-	1150	754875.789999999 760204.82 182704.2751 186648.66	
ORR_Geodb.DBO.Natural_Outline	Feature Class	Polygon	-	9035	738499.949199997 768250.027900003 171000 193750.043200001	
ORR_Geodb.DBO.Obscured_Areas	Feature Class	Polygon	-	1159	738499.949199997 768250.027900003 171000 193392.176800001	
ORR_Geodb.DBO.ORR_2006_bo_Merge	Feature Class	Polygon	-	5405	740258.7249 762999.989799999 171000 186750.059999999	

ORR_Geodb.DBO.ORR_2006_mo_Merge	Feature Class	Polygon	-	244	740321.935099997 762999.753600001 171231.668099999 186750.059999999	
ORR_Geodb.DBO.ORR_2006_ms_Merge	Feature Class	Polyline	-	4815	740249.946699999 762999.989799999 171160.995700002 186750.725099999	
ORR_Geodb.DBO.ORR_2006_no_Merge	Feature Class	Polygon	-	3445	740249.760399997 763000.130099997 171000 186751.135400001	
ORR_Geodb.DBO.ORR_2006 oa_Merge	Feature Class	Polygon	-	663	740255.615999997 762999.989799999 171816.713199999 186750.059999999	
ORR_Geodb.DBO.Soils						
ORR_Geodb.DBO.EFPC_soils	Feature Class	Polygon	-	437	745462.4274 759759.336000003 177890.026900001 189776.924400002	
ORR_Geodb.DBO.geo	Feature Class	Polygon	-	4	749813.855999999 754110.923500001 176776.130800001 181566.498199999	
ORR_Geodb.DBO.Soils	Feature Class	Polygon	-	3702	744638.299800001 762797.539499998 173696.765700001 186868.605099998	
ORR_Geodb.DBO.Topo_Features						
ORR_Geodb.DBO.Contours	Feature Class	Polyline	-	211473	738499.949199997 768250.027900003 171000 193750.043200001	
ORR_Geodb.DBO.j04cl	Feature Class	Polyline	-	582	750749.988700002 752500.018600002 176249.988000002 178000.019299999	
ORR_Geodb.DBO.j05cl	Feature Class	Polyline	-	378	750749.975900002 752500.014300004 177999.982700001 179750.011700001	
ORR_Geodb.DBO.k04cl	Feature Class	Polyline	-	583	752499.9802 754250.013700001 176249.978599999 178000.0187	
ORR_Geodb.DBO.k05cl	Feature Class	Polyline	-	479	752499.978200004 754250.021700002 177999.9824 179750.014600001	
ORR_Geodb.DBO.ORR_2006_cl_Merge	Feature Class	Polyline	-	28572	740249.967 763000.022399999 170999.981199998 186750.0229	
ORR_Geodb.DBO.Soils_1	Feature Class	Polygon	-	78	729526.388400003 808398.360299997 167356.899599999 218910.355700001	
ORR_Geodb.DBO.Transport_Features						
ORR_Geodb.DBO.merged_RD_roads	Feature Class	Polyline	-	910	754249.987300001 761249.986400001 181500.0152 186750.735100001	

ORR_GeodB.DBO.ORR_2006_rd_Merge	Feature Class	Polyline	-	7630	740249.816799998 763000.001800001 171000 186751.301199999	
ORR_GeodB.DBO.ORR_2006_rr_Merge	Feature Class	Polyline	-	134	743077.369999997 759086.719999999 176618.91 186750.059999999	
ORR_GeodB.DBO.ORR_2006_ts_Merge	Feature Class	Polyline	-	3998	740826.439199999 762999.990000002 171720.622000001 186750.059999999	
ORR_GeodB.DBO.Railroads	Feature Class	Polyline	-	294	743041.409999996 767104.953000002 176618.91 193750.043200001	
ORR_GeodB.DBO.Roads	Feature Class	Polyline	-	19861	738499.949199997 768250.027900003 171000 193750.043200001	
ORR_GeodB.DBO.Transport_Struct	Feature Class	Polyline	-	7055	739136.845299996 768113.172499999 171027.2797 193750.012699999	
Stand Alone ObjectClass(s)						
ORR_GeodB.DBO.DHI_Branches	Table	-	-	112	No Extent	-
ORR_GeodB.DBO.DHI_CrossSections	Feature Class	Polyline	-	291	745863.153320313 758932.153320313 178254.194885254 189351.912475586	
ORR_GeodB.DBO.DHI_IDManager	Table	-	-	8	No Extent	-
ORR_GeodB.DBO.DHI_MetaData	Table	-	-	17	No Extent	-
ORR_GeodB.DBO.DHI_MetaDataoubles	Table	-	-	9	No Extent	-
ORR_GeodB.DBO.DHI_Nodes	Feature Class	Point	-	218	745510.00012207 758930.440124512 178254.864929199 189350.225524902	
ORR_GeodB.DBO.DHI_Reaches	Feature Class	Polyline	-	217	745510.00012207 758930.440124512 178254.864929199 189350.225524902	
ORR_GeodB.DBO.DHI_TAFCLookUp	Table	-	-	0	No Extent	-
ORR_GeodB.DBO.DHI_Timeseries	Table	-	-	91	No Extent	-
ORR_GeodB.DBO.DHI_TSGroups	Table	-	-	1	No Extent	-
ORR_GeodB.DBO.DHI_TSValues	Table	-	-	0	No Extent	-
ORR_GeodB.DBO.EFPC001_PreProcessed_SoilProf	Table	-	-	221	No Extent	-
ORR_GeodB.DBO.EFPC001A_PreProcessed_SoilProf	Table	-	-	221	No Extent	-
ORR_GeodB.DBO.Flow_Aug_TS	Table	-	-	0	No Extent	-
ORR_GeodB.DBO.Monthly_RF_TS	Table	-	-	20454	No Extent	-
ORR_GeodB.DBO.OREIS_AnalyticalMethod_Codes	Table	-	-	2674	No Extent	-
ORR_GeodB.DBO.OREIS_CategoricalResult_Codes	Table	-	-	189	No Extent	-
ORR_GeodB.DBO.OREIS_ChemNames_Codes	Table	-	-	2247	No Extent	-
ORR_GeodB.DBO.OREIS_Codes_AllOthers	Table	-	-	1302	No Extent	-
ORR_GeodB.DBO.OREIS_Column_Descriptions	Table	-	-	0	No Extent	-
ORR_GeodB.DBO.OREIS_data_dictionary_w_project_code	Table	-	-	388	No Extent	-
ORR_GeodB.DBO.OREIS_IndexedColumns	Table	-	-	90	No Extent	-
ORR_GeodB.DBO.OREIS_Parameter_Codes	Table	-	-	2246	No Extent	-
ORR_GeodB.DBO.OREIS_Projects	Table	-	-	447	No Extent	-
ORR_GeodB.DBO.OREIS_Table_Descriptions	Table	-	-	42	No Extent	-
ORR_GeodB.DBO.OREIS_TaxonCodes	Table	-	-	714	No Extent	-
ORR_GeodB.DBO.TSType	Table	-	-	0	No Extent	-

Appendix B: ArcGIS Diagrammer Schema Report

ArcGIS Diagrammer

Report Creation

Date Thursday, April 10, 2014
 Author Lawrence/ARC-2481F4A8 on ARC-2481F4A8

System

Information

Operating System Microsoft Windows NT 6.1.7601 Service Pack 1
 .Net Framework 2.0.50727.5477
 Diagrammer 10.0.1.0

Geodatabase

Workspace Type ArcSDE Geodatabase
 File G:\DOE_Project3\DOE_ORR_GeodB\DOE_ORR_GeodB\Schema_Diagrams_ArcGIS_10.2\DOE_ORR_GEODB_SCHEMA_040914.XML

Schema Report

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[Spatial Reference](#)

Listing of Spatial References used by FeatureClasses and FeatureDatasets.

Domains		
Domain Name	Owner	Domain Type
<u>AHBoolean</u>	DBO	Coded Value
<u>Cross Section Status</u>	DBO	Coded Value
<u>DHI.Generic.CatchmentModelType</u>	DBO	Coded Value
<u>DHI.Generic.FlowDirection</u>	DBO	Coded Value
<u>DHI.Generic.NodeType</u>	DBO	Coded Value
<u>DHI.Generic.ReachType</u>	DBO	Coded Value
<u>DHI.Generic.RoutingType</u>	DBO	Coded Value
<u>TSDataType</u>	DBO	Coded Value
<u>TSIntervalType</u>	DBO	Coded Value
<u>TSOrigins</u>	DBO	Coded Value

AHBoolean

Owner	DBO
Description	
Domain Type	Coded Value
Field Type	Integer
Merge Policy	Default Value
Split Policy	Default Value

Domain Members

Name	Value
TRUE	1
FALSE	0

Cross Section Status

Owner	DBO
Description	
Domain Type	Coded Value
Field Type	Small Integer
Merge Policy	Default Value
Split Policy	Duplicate

Domain Members

Name	Value
New	4
Imported	0
Extended and Edited	3
Extended	2
Edited	1
Imported and Extended	5

DHI.Generic.CatchmentModelType

Owner	DBO
Description	
Domain Type	Coded Value
Field Type	Integer
Merge Policy	Default Value
Split Policy	Duplicate

Domain Members

Name	Value
None	0
Load WQ	1
ICM 1-layer GW	100
ICM 2-layer GW	200
ICM 1-layer GW + WQ	102
ICM 2-layer GW + WQ	202
NAM RR + 1-layer GW	110
NAM RR + 2-layer GW	210

```
NAM RR + 1-layer GW, 111
Load WQ
NAM RR + 2-layer GW, 211
Load WQ
```

DHI.Generic.FlowDirection

Owner	DBO
Description	
Domain Type	Coded Value
Field Type	Small Integer
Merge Policy	Default Value
Split Policy	Duplicate

Domain Members

Name	Value
Positive	0
Negative	1

DHI.Generic.NodeType

Owner	DBO
Description	
Domain Type	Coded Value
Field Type	Small Integer
Merge Policy	Default Value
Split Policy	Duplicate

Domain Members

Name	Value
None	0
River Node	1
Hydropower	2
Water User	3
Reservoir	4
Catchment Node	5
Reservoir (with catchment) Node	6
Irrigation Scheme	7
Weir	100
Culvert	101
Pump	102
Bridge	103
Regulating Control	104
Dam Break	105
User-Defined Tabulated	106
Energy Loss	107
Aggregated Structure	108
	109
	199

DHI.Generic.ReachType

Owner	DBO
Description	
Domain Type	Coded Value
Field Type	Small Integer
Merge Policy	Default Value
Split Policy	Duplicate

Domain Members	
Name	Value
River	0
Link Channel	1
Sub-Surface Flow Path	2
None	-1

DHI.Generic.RoutingType

Owner	DBO
Description	
Domain Type	Coded Value
Field Type	Small Integer
Merge Policy	Default Value
Split Policy	Duplicate

Domain Members	
Name	Value
No routing	0
Linear reservoir	1
Muskingum	2
Translation	3
Kinematic	4

TSDataType

Owner	DBO
Description	
Domain Type	Coded Value
Field Type	Integer
Merge Policy	Default Value
Split Policy	Default Value

Domain Members	
Name	Value
Instantaneous	1
Cumulative	2
Incremental	3
Average	4
Maximum	5
Minimum	6

TSIntervalType

Owner	DBO
Description	Coded Value
Domain Type	Integer
Field Type	Default Value
Merge Policy	Default Value
Split Policy	Default Value

Domain Members	
Name	Value
1Minute	1
2Minute	2
3Minute	3
4Minute	4
5Minute	5
10Minute	6
15Minute	7
20Minute	8
30Minute	9
1Hour	10
2Hour	11
3Hour	12
4Hour	13
6Hour	14
8Hour	15
12Hour	16
1Day	17
1Week	18
1Month	19
1Year	20
Other	99

TSOrigins

Owner	DBO
Description	Coded Value
Domain Type	Integer
Field Type	Default Value
Merge Policy	Default Value
Split Policy	Default Value

Domain Members	
Name	Value
Recorded	1
Generated	2

ObjectClasses				
ObjectClass Name	Type	Geometry	Subtype	
ORR_Geodb.DBO.Admin_Features				SR
ORR_Geodb.DBO.domain_EFPC	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.domain_WOC	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.ORR_Boundary_Polygon	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.Scrap_Yard	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.Scrapyard	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.SY	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.UBC	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.UBC_Merge	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.UEFPC	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.Y12_model_domain_polygon	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.CAD				SR
ORR_Geodb.DBO.Area	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.Area_1	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.CadDoc	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.CadDoc_1	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.Line	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.Line_1	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.Point	Simple FeatureClass	Point	-	
ORR_Geodb.DBO.Point_1	Simple FeatureClass	Point	-	
ORR_Geodb.DBO.Contaminant_Conc_Features				SR
ORR_Geodb.DBO.cis_1_2_Dichloroethene	Simple FeatureClass	Point	-	
ORR_Geodb.DBO.dce_plume	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.dce_soil	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.dcesoilcnt	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.dcesoilcontour	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.Dichloroethene	Simple FeatureClass	Point	-	
ORR_Geodb.DBO.ocesoilcontour	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.PCE	Simple FeatureClass	Point	-	
ORR_Geodb.DBO.PCE_Digitized	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.PCE_GW_SY	Simple FeatureClass	Point	-	
ORR_Geodb.DBO.pce_plume	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.PCE_PLUME_BD	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.pce_soil	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.pce_soil_1	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.Phase1_2ROD	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.TCE	Simple FeatureClass	Point	-	
ORR_Geodb.DBO.TCE_digitized	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.tce_plume	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.tce_soil	Simple FeatureClass	Polyline	-	
ORR_Geodb.DBO.Vinyl_Chloride	Simple FeatureClass	Point	-	
ORR_Geodb.DBO.VOC_GW	Simple FeatureClass	Polygon	-	
ORR_Geodb.DBO.GW_Features				SR

ORR_Geodb.DBO.gw_levels	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.Hydro_Features			SR
ORR_Geodb.DBO.ClinchRiver_Subwatershed	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.Floodplains	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.Hydroareas_Y12_EFPC	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.Hydrodrainage_ORR	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.Hydrostructures_Y12_EFPC	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.LowerClinch_HUC_06010207	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.merged_HL_hydrography_lines	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.merged_HP_hydrography_polys	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.merged_HS_hydrography_structures	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.ORR_2006_hl_Merge	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.ORR_2006_hp_Merge	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.ORR_2006_hs_Merge	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.ORR_Watersheds	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.wbd1004abc_a_tn	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.WOC_Catchments	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.WOC_WS	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.LandCover_LandUse_Features			SR
ORR_Geodb.DBO.lancovORR	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.NCLD2001_001	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.tnlandcov	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.WOC_LC	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.Y12_LandUse	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.Monitoring_Stations			SR
ORR_Geodb.DBO.OREIS_GWDEPTH2W_Stations_SY	Simple FeatureClass	Point	-
ORR_Geodb.DBO.outfalls	Simple FeatureClass	Point	-
ORR_Geodb.DBO.USGS_stations	Simple FeatureClass	Point	-
ORR_Geodb.DBO.Network_Features			SR
ORR_Geodb.DBO.diversion_ditch	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.diversion_ditch_elevations	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.NHDFlowline_0600102070105	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.NHDFlowline_WOC	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.nodes_WOC	Simple FeatureClass	Point	River Node Weir
ORR_Geodb.DBO.reaches_WOC	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.river_network	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.streams	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.streams_ddUBC	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.streams_ddUEFPC	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.streams_EFPC	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.streams_UBC	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.streams_UEFPC	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.tn_streams	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.Utilities	Simple FeatureClass	Polyline	-
ORR_Geodb.DBO.waterbody	Simple FeatureClass	Polygon	-
ORR_Geodb.DBO.xns_WOC	Simple FeatureClass	Polyline	-

ORR_GeodB.DBO.Physical_Features				SR
ORR_GeodB.DBO.building_WOC	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Buildings_98_ORR	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Buildings93	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Man_Made_Outlines	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Man_Made_Struct	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.Man_Made_Struct_Y12_EFPC	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.Margin	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.merged_BO_building_rooflines	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.merged_BO_polyline	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.Natural_Outline	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Obscured_Areas	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.ORR_2006_bo_Merge	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.ORR_2006_mo_Merge	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.ORR_2006_ms_Merge	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.ORR_2006_no_Merge	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.ORR_2006 oa_Merge	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Soils				SR
ORR_GeodB.DBO.EFPC_soils	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.geo	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Soils	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Topo_Features				SR
ORR_GeodB.DBO.Contours	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.j04cl	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.i05cl	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.k04cl	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.k05cl	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.ORR_2006_cl_Merge	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.Soils_1	Simple FeatureClass	Polygon	-	
ORR_GeodB.DBO.Transport_Features				SR
ORR_GeodB.DBO.merged_RD_roads	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.ORR_2006_rd_Merge	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.ORR_2006_rr_Merge	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.ORR_2006_ts_Merge	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.Railroads	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.Roads	Simple FeatureClass	Polyline	-	
ORR_GeodB.DBO.Transport_Struct	Simple FeatureClass	Polyline	-	
Stand Alone ObjectClass(s)				
ORR_GeodB.DBO.DHI_Branches	Table	-	-	
ORR_GeodB.DBO.DHI_CrossSections	Simple FeatureClass	Polyline	-	SR
ORR_GeodB.DBO.DHI_IDManager	Table	-	-	
ORR_GeodB.DBO.DHI_MetaData	Table	-	-	
ORR_GeodB.DBO.DHI_MetaData	Table	-	-	
ORR_GeodB.DBO.DHI_Nodes	Simple FeatureClass	Point	-	SR
ORR_GeodB.DBO.DHI_Reaches	Simple FeatureClass	Polyline	-	SR
ORR_GeodB.DBO.DHI_TAFCLookUp	Table	-	-	
ORR_GeodB.DBO.DHI_Timeseries	Table	-	-	

ORR_Geodb.Dbo.Dhi_TSGroups	Table	-	-
ORR_Geodb.Dbo.Dhi_TSValues	Table	-	-
ORR_Geodb.Dbo.EFPC001_PreProcessed_SoilProf	Table	-	-
ORR_Geodb.Dbo.EFPC001A_PreProcessed_SoilProf	Table	-	-
ORR_Geodb.Dbo.Flow_Aug_TS	Table	-	-
ORR_Geodb.Dbo.Monthly_RF_TS	Table	-	-
ORR_Geodb.Dbo.OREIS_AnalyticalMethod_Codes	Table	-	-
ORR_Geodb.Dbo.OREIS_CategoricalResult_Codes	Table	-	-
ORR_Geodb.Dbo.OREIS_ChemNames_Codes	Table	-	-
ORR_Geodb.Dbo.OREIS_Codes_AllOthers	Table	-	-
ORR_Geodb.Dbo.OREIS_Column_Descriptions	Table	-	-
ORR_Geodb.Dbo.OREIS_Data_Dictionary_w_Project_Code	Table	-	-
ORR_Geodb.Dbo.OREIS_IndexedColumns	Table	-	-
ORR_Geodb.Dbo.OREIS_Parameter_Codes	Table	-	-
ORR_Geodb.Dbo.OREIS_Projects	Table	-	-
ORR_Geodb.Dbo.OREIS_Table_Descriptions	Table	-	-
ORR_Geodb.Dbo.OREIS_TaxonCodes	Table	-	-
ORR_Geodb.Dbo.TSType	Table	-	-

ORR_Geodb.Dbo.Area

Alias	ORR_Geodb.Dbo.Area	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: Yes Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	ObjectID	ObjectID	OID	10	0	4	No
EntID	EntID	EntID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R217_pk	Yes	Yes
S169_idx	Yes	Yes
		Fields
		OBJECTID
		Shape

ORR_Geodb.Dbo.Area_1

Alias	ORR_Geodb.Dbo.Area_1	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: Yes Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	ObjectID	ObjectID	OID	10	0	4	No
EntID	EntID	EntID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No

Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No
Subtype Name	Default Value	Domain					
Index Name	Ascending	Unique			Fields		
R221_pk	Yes	Yes			OBJECTID		
S173_idx	Yes	Yes			Shape		

ORR_GeodB.DBO.building_WOC

Alias	WOC Buildings	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0 Has M:No Has Z:No Grid Size:81
FeatureType	Simple	

Field Name	Alias Name	Model Name	Type	Prec	Scal	Lengt	Nul
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.building_WOC.AR	ORR_GeodB.DBO.building_WOC.AR	ORR_GeodB.DBO.building_WOC.AR	Double	38	8	8	Yes
EA	EA	EA					
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
BUILDINGEL	BUILDINGEL	BUILDINGEL	Integer	10	0	4	Yes
BUILDING_1	BUILDING_1	BUILDING_1	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
BUILD_ID1	BUILD_ID1	BUILD_ID1	String	0	0	10	Yes
ELEV	ELEV	ELEV	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a67_ix1	Yes	Yes
R76_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBOBuildings_98_ORR

Alias	Buildings (1998) ORR	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0 Has M:No Has Z:No Grid Size:110
FeatureType	Simple	

Field Name	Alias Name	Model Name	Type	Prec	Scal	Lengt	Nul
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBOBuildings_98_ORR	ORR_GeodB.DBOBuildings_98_ORR	ORR_GeodB.DBOBuildings_98_ORR	Double	38	8	8	Yes
.AREA	.AREA	.AREA					
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
BUILDINGEL	BUILDINGEL	BUILDINGEL	Integer	10	0	4	Yes
BUILDING_1	BUILDING_1	BUILDING_1	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
BUILD_ID1	BUILD_ID1	BUILD_ID1	String	0	0	10	Yes
ELEV	ELEV	ELEV	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Shape.area Shape.len	Shape.area Shape.len	Shape.area Shape.len	Double Double	0 0	0 0	0 0	No No
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Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a35_ix1 R44_SDE_ROWID_UK	Yes Yes	Yes Yes	Shape OBJECTID

ORR_GeodB.DBO.Buildings93

Alias	Buildings (1993)	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 31

Field Name	Alias Name	Model Name	Type	Precn	Scal	Len gt	Nul l
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.Buildings93.ARE A	ORR_GeodB.DBO.Buildings93.ARE A	ORR_GeodB.DBO.Buildings93.ARE A	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
BUILDING_	BUILDING_	BUILDING_	Integer	10	0	4	Yes
BUILDING_I	BUILDING_I	BUILDING_I	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
BUILD_ID1	BUILD_ID1	BUILD_ID1	String	0	0	10	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a34_ix1 R43_SDE_ROWID_UK	Yes Yes	Yes Yes	Shape OBJECTID

ORR_GeodB.DBO.CadDoc

Alias	ORR_GeodB.DBO.CadDoc	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: Yes Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn	Scale	Length	Null
OBJECTID	ObjectID	ObjectID	OID	10	0	4	No
DocName	DocName	DocName	String	0	0	255	Yes
DocPath	DocPath	DocPath	String	0	0	1025	Yes
DocType	DocType	DocType	String	0	0	255	Yes
DocVer	DocVer	DocVer	String	0	0	16	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
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Index Name	Ascending	Unique	Fields
R220_pk	Yes	Yes	OBJECTID
S172_idx	Yes	Yes	Shape

ORR_GeodB.DBO.CadDoc_1

Alias	ORR_GeodB.DBO.CadDoc_1	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: Yes Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	ObjectID	ObjectID	OID	10	0	4	No
DocName	DocName	DocName	String	0	0	255	Yes
DocPath	DocPath	DocPath	String	0	0	1025	Yes
DocType	DocType	DocType	String	0	0	255	Yes
DocVer	DocVer	DocVer	String	0	0	16	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R224_pk	Yes	Yes
S176_idx	Yes	Yes

ORR_GeodB.DBO.cis_1_2_Dichloroethene

Alias	Cis-1,2-Dichloroethene (Points)	Conc. Geometry:Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 143.99536403568615

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
STA_NAME	STA_NAME	STA_NAME	String	0	0	254	Yes
SPLANE_EAS	SPLANE_EAS	SPLANE_EAS	Double	21	6	8	Yes
SPLANE_NOR	SPLANE_NOR	SPLANE_NOR	Double	21	6	8	Yes
RESULTS_mg	RESULTS_mg	RESULTS_mg	Double	21	6	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a79_ix1	Yes	Yes
R88_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBO.ClinchRiver_Subwatershed

Alias	Clinch River Subwatershed	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 26000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.ClinchRiver_Subwatershed.AREA	ORR_GeodB.DBO.ClinchRiver_Subwatershed.AREA	ORR_GeodB.DBO.ClinchRiver_Subwatershed.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
WBD1004ABC	WBD1004ABC	WBD1004ABC	Integer	10	0	4	Yes
WBD1004A_1	WBD1004A_1	WBD1004A_1	Integer	10	0	4	Yes
TNDRAFTCB_	TNDRAFTCB_	TNDRAFTCB_	Double	38	8	8	Yes
DRAFTHUA_	DRAFTHUA_	DRAFTHUA_	Double	38	8	8	Yes
DRAFTHUA_I	DRAFTHUA_I	DRAFTHUA_I	Double	38	8	8	Yes
HUC_8	HUC_8	HUC_8	String	0	0	8	Yes
HUC_10	HUC_10	HUC_10	String	0	0	10	Yes
ACRES	ACRES	ACRES	Double	38	8	8	Yes
HUC_12	HUC_12	HUC_12	String	0	0	12	Yes
STATES	STATES	STATES	String	0	0	12	Yes
NCONTRB_A	NCONTRB_A	NCONTRB_A	Double	38	8	8	Yes
HU_10_DS	HU_10_DS	HU_10_DS	String	0	0	10	Yes
HU_10_NAME	HU_10_NAME	HU_10_NAME	String	0	0	80	Yes
HU_10_MOD	HU_10_MOD	HU_10_MOD	String	0	0	20	Yes
HU_10_TYPE	HU_10_TYPE	HU_10_TYPE	String	0	0	1	Yes
HU_12_DS	HU_12_DS	HU_12_DS	String	0	0	12	Yes
HU_12_NAME	HU_12_NAME	HU_12_NAME	String	0	0	80	Yes
HU_12_MOD	HU_12_MOD	HU_12_MOD	String	0	0	20	Yes
HU_12_TYPE	HU_12_TYPE	HU_12_TYPE	String	0	0	1	Yes
DRAFTACRE	DRAFTACRE	DRAFTACRE	Double	38	8	8	Yes
A10DIGIT	A10DIGIT	A10DIGIT	String	0	0	2	Yes
A12DIGIT	A12DIGIT	A12DIGIT	String	0	0	2	Yes
LABEL	LABEL	LABEL	String	0	0	6	Yes
HU_8_NAME	HU_8_NAME	HU_8_NAME	String	0	0	80	Yes
HUC_6	HUC_6	HUC_6	String	0	0	6	Yes
HU_6_NAME	HU_6_NAME	HU_6_NAME	String	0	0	80	Yes
HUC_4	HUC_4	HUC_4	String	0	0	4	Yes
HU_4_NAME	HU_4_NAME	HU_4_NAME	String	0	0	80	Yes
HUC_2	HUC_2	HUC_2	String	0	0	2	Yes
HU_2_NAME	HU_2_NAME	HU_2_NAME	String	0	0	80	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a8_ix1	Yes	Yes
R17_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBO.Contours

Alias	Contours	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 620

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes

RPOLY_LENGTH	RPOLY_LENGTH	RPOLY_LENGTH	Integer	10	0	4	Yes
CONTOUR_CONTOUR_ID	CONTOUR_CONTOUR_ID	CONTOUR_CONTOUR_ID	Double	38	8	8	Yes
FC_FC	FC_FC	FC_FC	Integer	10	0	4	Yes
ELEV_ELEV	ELEV_ELEV	ELEV_ELEV	Integer	10	0	4	Yes
Shape_Shape	Shape_Shape	Shape_Shape	Geometry	0	0	4	Yes
Shape.len_Shape.len	Shape.len_Shape.len	Shape.len_Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
a44_ix1	Yes	Yes
R53_SDE_ROWID_UK	Yes	Yes

ORR_Geodb.DBO.dce_plume

Alias	DCE plume (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
CONTOUR	CONTOUR	CONTOUR	Double	21	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
R168_pk	Yes	OBJECTID
S128_idx	Yes	Shape

ORR_Geodb.DBO.dce_soil

Alias	Soil DCE 1 (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
CONTOUR	CONTOUR	CONTOUR	Double	21	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
R169_pk	Yes	OBJECTID
S129_idx	Yes	Shape

ORR_Geodb.DBO.dcesoilcnt

Alias	Soil DCE 2 (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0

FeatureType	Simple	Has M: No Has Z: No Grid Size: -6
Field Name	Alias Name	Model Name
OBJECTID	OBJECTID	OBJECTID
ID	ID	ID
CONTOUR	CONTOUR	CONTOUR
Shape	Shape	Shape
Shape.STLength()	Shape.STLength()	Shape.STLength()
Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R170_pk	Yes	Yes
S130_idx	Yes	Yes
Fields		
	OBJECTID	
	Shape	

ORR_GeodB.DBO.dcesoilcontour

Alias	Soil DCE 3 (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6
Field Name	Alias Name	Model Name
OBJECTID	OBJECTID	OBJECTID
ID	ID	ID
CONTOUR	CONTOUR	CONTOUR
Shape	Shape	Shape
Shape.STLength()	Shape.STLength()	Shape.STLength()
Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R171_pk	Yes	Yes
S131_idx	Yes	Yes
Fields		
	OBJECTID	
	Shape	

ORR_GeodB.DBO.DHI_Branches

Alias	DHI Branches
Dataset Type	Table
FeatureType	
Field Name	Alias Name
OBJECTID	OBJECTID
DHI_ID	DHI_ID
BranchName	BranchName
StartChainage	StartChainage
StartChainageFixed	StartChainageFixed
MaxDx	MaxDx
TopoID	TopoID
ExtendedProperties	ExtendedProperties
Model Name	Type
OBJECTID	OID
DHI_ID	Integer
BranchName	String
StartChainage	Double
StartChainageFixed	Small Integer
MaxDx	Double
TopoID	String
ExtendedProperties	Blob
Precn.	Scale
10	0
10	0
0	0
38	8
5	0
38	8
0	0
0	0
Length	Null
4	No
8	Yes
80	Yes
8	Yes
2	Yes
8	Yes
80	Yes
0	Yes
Subtype Name	Default Value
ObjectClass	
StartChainage	0
Domain	
	-
Index Name	Ascending
R136_SDE_ROWID_UK	Yes
Unique	
Yes	
Fields	
	OBJECTID

ORR_GeodB.DBO.DHI_CrossSections

Alias	DHI CrossSections	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes Has Z: Yes Grid Size: 17

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
Branch	Branch	Branch	String	0	0	80	Yes
Chainage	Chainage	Chainage	Double	38	8	8	Yes
Status	Status	Status	Small Integer	5	0	2	Yes
TopoID	TopoID	TopoID	String	0	0	80	Yes
CrossSectionName	CrossSectionName	CrossSectionName	String	0	0	80	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
ObjectClass		
Status	4	-

Index Name	Ascending	Unique	Fields
a111_ix1	Yes	Yes	Shape
R131_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.DHI_IDManager

Alias	DHI ID Manager
Dataset Type	Table
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
NextDHI_ID	NextDHI_ID	NextDHI_ID	Integer	10	0	4	Yes
TableName	TableName	TableName	String	0	0	255	Yes

Subtype Name	Default Value	Domain
Index Name		
R135_SDE_ROWID_UK	Ascending Yes	Unique Yes Fields OBJECTID

ORR_GeodB.DBO.DHI_MetaData

Alias	DHI MetaData
Dataset Type	Table
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
KeyName	KeyName	KeyName	String	0	0	255	Yes
KeyValue	KeyValue	KeyValue	String	0	0	255	Yes

Subtype Name	Default Value	Domain
Index Name		
R138_SDE_ROWID_UK	Ascending Yes	Unique Yes Fields OBJECTID

ORR_GeodB.DBO.DHI_MetaDoubles

Alias	ORR_GeodB.DBO.DHI_MetaDoubles
Dataset Type	Table
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DbTableName	DbTableName	DbTableName	String	0	0	255	Yes
DbFieldName	DbFieldName	DbFieldName	String	0	0	255	Yes
DefaultValueInDefSI	DefaultValueInDefSI	DefaultValueInDefSI	Double	38	8	8	Yes
MinAllowedInDefSI	MinAllowedInDefSI	MinAllowedInDefSI	Double	38	8	8	Yes
MaxAllowedInDefSI	MaxAllowedInDefSI	MaxAllowedInDefSI	Double	38	8	8	Yes
eumDataType	eumDataType	eumDataType	Integer	10	0	4	Yes
eumUnit	eumUnit	eumUnit	Integer	10	0	4	Yes
DefaultUnitSI	DefaultUnitSI	DefaultUnitSI	Integer	10	0	4	Yes
DefaultUnitUS	DefaultUnitUS	DefaultUnitUS	Integer	10	0	4	Yes

Subtype Name	Default Value	Domain
Index Name R139_SDE_ROWID_UK	Ascending Yes	Unique Yes Fields OBJECTID

ORR_GeodB.DBO.DHI_Nodes

Alias	DHI Nodes	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: Yes Grid Size: 826.46761643126115

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
NodeType	NodeType	NodeType	Small Integer	5	0	2	Yes
NodeName	NodeName	NodeName	String	0	0	80	Yes
Category	Category	Category	String	0	0	80	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
ObjectClass NodeType	1	-
Index Name a108_ix1 R128_SDE_ROWID_UK	Ascending Yes Unique Yes	Fields Shape OBJECTID

ORR_GeodB.DBO.DHI_Reaches

Alias	DHI Reaches	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes Has Z: Yes Grid Size: 1100

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
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OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
ReachType	ReachType	ReachType	Small Integer	5	0	2	Yes
ReachName	ReachName	ReachName	String	0	0	80	Yes
Category	Category	Category	String	0	0	80	Yes
FlowDir	FlowDir	FlowDir	Small Integer	5	0	2	Yes
Routing	Routing	Routing	Small Integer	5	0	2	Yes
DownChainage	DownChainage	DownChainage	Double	38	8	8	Yes
DownChainageFixed	DownChainageFixed	DownChainageFixed	Small Integer	5	0	2	Yes
UpstreamNode	UpstreamNode	UpstreamNode	Integer	10	0	4	Yes
DownstreamNode	DownstreamNode	DownstreamNode	Integer	10	0	4	Yes
BranchID	BranchID	BranchID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
ObjectClass		
ReachType	0	-
FlowDir	0	-
Routing	0	-

Index Name	Ascending	Unique	Fields
a109_ix1	Yes	Yes	Shape
R129_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_Geodb.DBO.DHI_TAFCLookUp

Alias DHI TAFC LookUp

Dataset Type Table

FeatureType

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
DBServer	DBServer	DBServer	String	0	0	255	Yes
DBName	DBName	DBName	String	0	0	255	Yes
TA_797680458	TA_797680458	TA_797680458	String	0	0	255	Yes

Subtype Name	Default Value	Domain

Index Name	Ascending	Unique	Fields
R137_SDE_ROWID_UK	Yes	Yes	OBJECTID

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
Name	Name	Name	String	0	0	255	Yes
Origin	Origin	Origin	String	0	0	255	Yes
StartTime	StartTime	StartTime	Date	0	0	36	Yes
EndTime	EndTime	EndTime	Date	0	0	36	Yes
TimeStep	TimeStep	TimeStep	Double	38	8	8	Yes
TimeStepUnit	TimeStepUnit	TimeStepUnit	Integer	10	0	4	Yes
TimeType	TimeType	TimeType	Integer	10	0	4	Yes
ValueType	ValueType	ValueType	Integer	10	0	4	Yes
EUMType	EUMType	EUMType	Integer	10	0	4	Yes
EUMUnit	EUMUnit	EUMUnit	Integer	10	0	4	Yes

GroupID	GroupID	GroupID	Integer	10	0	4	Yes
ItemIndex	ItemIndex	ItemIndex	Integer	10	0	4	Yes
Location	Location	Location	Small Integer	5	0	2	Yes
Bridge	Bridge	Bridge	String	0	0	255	Yes
FileLocation	FileLocation	FileLocation	String	0	0	255	Yes
FileItemNum	FileItemNum	FileItemNum	Integer	10	0	4	Yes
BridgeSpecification	BridgeSpecification	BridgeSpecification	String	0	0	255	Yes
UserName	UserName	UserName	String	0	0	255	Yes
UserPassword	UserPassword	UserPassword	String	0	0	255	Yes
ImportDate	ImportDate	ImportDate	Date	0	0	36	Yes

Subtype Name	Default Value	Domain
Index Name R127_SDE_ROWID_UK	Ascending Yes	Unique Yes Fields OBJECTID

ORR_GeodB.DBO.DHI_TSGroups

Alias DHI TS Groups

Dataset Type Table

FeatureType

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
GroupName	GroupName	GroupName	String	0	0	255	Yes
ParentGroupID	ParentGroupID	ParentGroupID	Integer	10	0	4	Yes

Subtype Name	Default Value	Domain
Index Name R134_SDE_ROWID_UK	Ascending Yes	Unique Yes Fields OBJECTID

ORR_GeodB.DBO.DHI_TSValues

Alias DHI TS Values

Dataset Type Table

FeatureType

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
TimeSeriesID	TimeSeriesID	TimeSeriesID	Integer	10	0	4	Yes
TSDateTime	TSDateTime	TSDateTime	Date	0	0	36	Yes
TSValue	TSValue	TSValue	Double	38	8	8	Yes
TSTime	TSTime	TSTime	Double	38	8	8	Yes

Subtype Name	Default Value	Domain
Index Name R140_SDE_ROWID_UK	Ascending Yes	Unique Yes Fields OBJECTID

ORR_GeodB.DBO.Dichloroethene

Alias	Dichloroethene Conc. (points)	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 157.83184416843807

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
STA_NAME	STA_NAME	STA_NAME	String	0	0	254	Yes
SPLANE_EAS	SPLANE_EAS	SPLANE_EAS	Double	21	6	8	Yes
SPLANE_NOR	SPLANE_NOR	SPLANE_NOR	Double	21	6	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name		
a78_ix1	Ascending Yes	Unique Yes
R87_SDE_ROWID_UK	Yes	Fields Shape OBJECTID

ORR_GeodB.DBO.diversion_ditch

Alias	Diversion Ditch	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 3100

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
a21_ix1	Ascending Yes	Unique Yes
R30_SDE_ROWID_UK	Yes	Fields Shape OBJECTID

ORR_GeodB.DBO.diversion_ditch_elevations

Alias	Diversion Ditch (elevations)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes Has Z: Yes Grid Size: 1800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
a22_ix1	Ascending Yes	Unique Yes
R31_SDE_ROWID_UK	Yes	Fields Shape OBJECTID

ORR_Geodb.DBO.domain_EFPC

Alias	East Fork Poplar Creek Model	Geometry: Polygon Average Number of Points: 0 Has M: No Has Z: No Grid Size: 15000
Dataset Type	FeatureClass	
FeatureType	Simple	

Field Name	Alias Name	Model Name	Type	Precn	Scal	Lengt	Nul
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_Geodb.DBO.domain_EFPC.AR	ORR_Geodb.DBO.domain_EFPC.AR	ORR_Geodb.DBO.domain_EFPC.AR	Double	19	3	8	Yes
EA	EA	EA	Double	19	3	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	19	3	8	Yes
WBD1004ABC	WBD1004ABC	WBD1004ABC	Integer	10	0	4	Yes
WBD1004A_1	WBD1004A_1	WBD1004A_1	Integer	10	0	4	Yes
TNDRAFTCB_	TNDRAFTCB_	TNDRAFTCB_	Double	19	3	8	Yes
DRAFHUA_	DRAFHUA_	DRAFHUA_	Double	19	3	8	Yes
DRAFHUA_I	DRAFHUA_I	DRAFHUA_I	Double	19	3	8	Yes
HUC_8	HUC_8	HUC_8	String	0	0	8	Yes
HUC_10	HUC_10	HUC_10	String	0	0	10	Yes
ACRES	ACRES	ACRES	Double	19	3	8	Yes
HUC_12	HUC_12	HUC_12	String	0	0	12	Yes
STATES	STATES	STATES	String	0	0	12	Yes
NCONTRB_A	NCONTRB_A	NCONTRB_A	Double	19	3	8	Yes
HU_10_DS	HU_10_DS	HU_10_DS	String	0	0	10	Yes
HU_10_NAME	HU_10_NAME	HU_10_NAME	String	0	0	80	Yes
HU_10_MOD	HU_10_MOD	HU_10_MOD	String	0	0	20	Yes
HU_10_TYPE	HU_10_TYPE	HU_10_TYPE	String	0	0	1	Yes
HU_12_DS	HU_12_DS	HU_12_DS	String	0	0	12	Yes
HU_12_NAME	HU_12_NAME	HU_12_NAME	String	0	0	80	Yes
HU_12_MOD	HU_12_MOD	HU_12_MOD	String	0	0	20	Yes
HU_12_TYPE	HU_12_TYPE	HU_12_TYPE	String	0	0	1	Yes
DRAFTACRE	DRAFTACRE	DRAFTACRE	Double	19	3	8	Yes
A10DIGIT	A10DIGIT	A10DIGIT	String	0	0	2	Yes
A12DIGIT	A12DIGIT	A12DIGIT	String	0	0	2	Yes
LABEL	LABEL	LABEL	String	0	0	6	Yes
HU_8_NAME	HU_8_NAME	HU_8_NAME	String	0	0	80	Yes
HUC_6	HUC_6	HUC_6	String	0	0	6	Yes
HU_6_NAME	HU_6_NAME	HU_6_NAME	String	0	0	80	Yes
HUC_4	HUC_4	HUC_4	String	0	0	4	Yes
HU_4_NAME	HU_4_NAME	HU_4_NAME	String	0	0	80	Yes
HUC_2	HUC_2	HUC_2	String	0	0	2	Yes
HU_2_NAME	HU_2_NAME	HU_2_NAME	String	0	0	80	Yes
Shape	Shape	Shape	Geometr	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a66_ix1	Yes	Yes
R75_SDE_ROWID_UK	Yes	Yes

ORR_Geodb.DBO.domain_WOC

Alias	WOC Model Domain	Geometry: Polygon Average Number of Points: 0 Has M: No Has Z: No Grid Size: 4800
Dataset Type	FeatureClass	
FeatureType	Simple	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a3_ix1	Yes	Yes	Shape
R12_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.EFPC_soils

Alias	EFPC Soils	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
AREASYMBOL	AREASYMBOL	AREASYMBOL	String	0	0	20	Yes
SPATIALVER	SPATIALVER	SPATIALVER	Double	10	0	8	Yes
MUSYM	MUSYM	MUSYM	String	0	0	6	Yes
MUKEY	MUKEY	MUKEY	String	0	0	30	Yes
ORR_GeodB.DBO.EFPC_soils.AREA	ORR_GeodB.DBO.EFPC_soils.AREA	ORR_GeodB.DBO.EFPC_soils.AREA	Integer	10	0	4	Yes
Texture	Texture	Texture	String	0	0	50	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
R225_pk	Yes	Yes	OBJECTID
S177_idx	Yes	Yes	Shape

ORR_GeodB.DBO.EFPC001_PreProcessed_SoilProf

Alias	ORR_GeodB.DBO.EFPC001_PreProcessed_SoilProf
Dataset	Table
Type	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
NoName	NoName	NoName	String	0	0	255	Yes

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
R124_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.EFPC001A_PreProcessed_SoilProf

Alias	ORR_GeodB.DBO.EFPC001A_PreProcessed_SoilProf
Dataset Type	Table
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
NoName	NoName	NoName	String	0	0	255	Yes
Subtype Name		Default Value					
Index Name	Ascending	Unique	Fields				
R125_SDE_ROWID_UK	Yes	Yes	OBJECTID				

ORR_GeodB.DBO.Floodplains

Alias	Floodplains	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size:21000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FLOODPLAIN	FLOODPLAIN	FLOODPLAIN	Integer	10	0	4	Yes
Cnt_FLOODP	Cnt_FLOODP	Cnt_FLOODP	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
a16_ix1	Yes	Shape
R25_SDE_ROWID_UK	Yes	OBJECTID

ORR_GeodB.DBO.Flow_Aug_TS

Alias	Flow Augmentation TS
Dataset Type	Table
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
Name	Name	Name	String	0	0	255	Yes
Origin	Origin	Origin	String	0	0	255	Yes
StartTime	StartTime	StartTime	Date	0	0	36	Yes
EndTime	EndTime	EndTime	Date	0	0	36	Yes
TimeStep	TimeStep	TimeStep	Double	38	8	8	Yes
TimeStepUnit	TimeStepUnit	TimeStepUnit	Integer	10	0	4	Yes
TimeType	TimeType	TimeType	Integer	10	0	4	Yes
ValueType	ValueType	ValueType	Integer	10	0	4	Yes
EUMType	EUMType	EUMType	Integer	10	0	4	Yes
EUMUnit	EUMUnit	EUMUnit	Integer	10	0	4	Yes
GroupID	GroupID	GroupID	Integer	10	0	4	Yes
ItemIndex	ItemIndex	ItemIndex	Integer	10	0	4	Yes
Location	Location	Location	Small Integer	5	0	2	Yes

Bridge	Bridge	Bridge	String	0	0	255	Yes
FileLocation	FileLocation	FileLocation	String	0	0	255	Yes
FileItemNum	FileItemNum	FileItemNum	Integer	10	0	4	Yes
BridgeSpecification	BridgeSpecification	BridgeSpecification	String	0	0	255	Yes
UserName	UserName	UserName	String	0	0	255	Yes
UserPassword	UserPassword	UserPassword	String	0	0	255	Yes
ImportDate	ImportDate	ImportDate	Date	0	0	36	Yes

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
R7_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.geo

Alias	WOC Geology	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size:4300

Field Name	Alias Name	Model Name	Type	Pre	cn.	Scal	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No	
ORR_GeodB.DBO.geo.AREA	ORR_GeodB.DBO.geo.AREA	ORR_GeodB.DBO.geo.AREA	Double	38	8	8	Yes	
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes	
GEOLOGY_CV	GEOLOGY_CV	GEOLOGY_CV	Integer	10	0	4	Yes	
GEOLOGY__1	GEOLOGY__1	GEOLOGY__1	Integer	10	0	4	Yes	
GEO	GEO	GEO	String	0	0	4	Yes	
K_H	K_H	K_H	Double	38	8	8	Yes	
K_V	K_V	K_V	Double	38	8	8	Yes	
Shape	Shape	Shape	Geometry	0	0	4	Yes	
Shape.area	Shape.area	Shape.area	Double	0	0	0	No	
Shape.len	Shape.len	Shape.len	Double	0	0	0	No	

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a76_ix1	Yes	Yes	Shape
R85_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.gw_levels

Alias	Y12 GW levels (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:Yes Has Z:Yes Grid Size:2500

Field Name	Alias Name	Model Name	Type	Pre	cn.	Scal	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No	
GW_Level	GW_Level	GW_Level	Double	38	8	8	Yes	
Id	Id	Id	Double	38	8	8	Yes	
Shape	Shape	Shape	Geometry	0	0	4	Yes	
Shape.len	Shape.len	Shape.len	Double	0	0	0	No	

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a45_ix1	Yes	Yes	Shape
R54_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.Hydroareas_Y12_EFPC

Alias	Hydroareas Y12-EFPC	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 30000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
NAME	NAME	NAME	String	0	0	254	Yes
Cnt_NAME	Cnt_NAME	Cnt_NAME	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a13_ix1 R22_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes

ORR_GeodB.DBO.Hydrodrainage_ORR

Alias	Hydrodrainage ORR	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 480

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
HYDRODRAIN	HYDRODRAIN	HYDRODRAIN	Integer	10	0	4	Yes
HYDRODRA_1	HYDRODRA_1	HYDRODRA_1	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
NAME	NAME	NAME	String	0	0	30	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a15_ix1 R24_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes

ORR_GeodB.DBO.Hydrostructures_Y12_EFPC

Alias	Hydrostructures Y12-EFPC	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 49

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	String	0	0	9	Yes
TNODE_	TNODE_	TNODE_	String	0	0	9	Yes
LPOLY_	LPOLY_	LPOLY_	String	0	0	9	Yes
RPOLY_	RPOLY_	RPOLY_	String	0	0	9	Yes
LENGTH	LENGTH	LENGTH	Double	29	11	8	Yes
HYDROSTRCT	HYDROSTRCT	HYDROSTRCT	String	0	0	9	Yes
HYDROSTR_1	HYDROSTR_1	HYDROSTR_1	String	0	0	9	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
DESCRIPTIO	DESCRIPTIO	DESCRIPTIO	String	0	0	25	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a14_ix1 R23_SDE_ROWID_UK	Yes Yes	Yes Yes

ORR_GeodB.DBO.j04cl

Alias	ORR_GeodB.DBO.j04cl	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1600

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FC	FC	FC	Small Integer	5	0	2	Yes
ELEV	ELEV	ELEV	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a99_ix1 R112_SDE_ROWID_UK	Yes Yes	Yes Yes

ORR_GeodB.DBO.j05cl

Alias	ORR_GeodB.DBO.j05cl	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FC	FC	FC	Small Integer	5	0	2	Yes
ELEV	ELEV	ELEV	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain

Index Name	Ascending	Unique	Fields
a100_ix1	Yes	Yes	Shape
R113_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.k04cl

Alias	ORR_GeodB.DBO.k04cl	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FC	FC	FC	Small Integer	5	0	2	Yes
ELEV	ELEV	ELEV	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a101_ix1	Yes	Yes
R114_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBO.k05cl

Alias	ORR_GeodB.DBO.k05cl	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1700

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FC	FC	FC	Small Integer	5	0	2	Yes
ELEV	ELEV	ELEV	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a102_ix1	Yes	Yes
R115_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBO.lancoverORR

Alias	ORR Land Cover	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1900

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	38	8	8	Yes
GRIDCODE	GRIDCODE	GRIDCODE	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a46_ix1 R55_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes

ORR_GeodB.DBO.Line

Alias	ORR_GeodB.DBO.Line	Geometry: Polyline				
Dataset Type	FeatureClass	Average	Number	of	Points:0	
FeatureType	Simple	Has			M:No	
		Has			Z:Yes	
		Grid Size:-6				

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	ObjectID	ObjectID	OID	10	0	4	No
EntID	EntID	EntID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name R218_pk S170_idx	Ascending Yes Yes	Unique Yes Yes

ORR_GeodB.DBO.Line_1

Alias	ORR_GeodB.DBO.Line_1	Geometry: Polyline				
Dataset Type	FeatureClass	Average Number of Points:0				
FeatureType	Simple	Has M:No				
		Has Z:Yes				
		Grid Size:-6				

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	ObjectID	ObjectID	OID	10	0	4	No
EntID	EntID	EntID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name R222_pk S174_idx	Ascending Yes Yes	Fields OBJECTID Shape

ORR_Geodb.DBO.LowerClinch_HUC_06010207

Alias	Lower Clinch River Watershed (HUC 06010207)	Geometry: Polygon Average Number of Points: 0 Has M: No Has Z: No Grid Size: 79000
Dataset Type	FeatureClass	
FeatureType	Simple	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
ORR_Geodb.DBO.LowerClinch_HUC_06010207.AREA	ORR_Geodb.DBO.LowerClinch_HUC_06010207.AREA	ORR_Geodb.DBO.LowerClinch_HUC_06010207.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
HUC250C_	HUC250C_	HUC250C_	Integer	10	0	4	Yes
HUC250C_ID	HUC250C_ID	HUC250C_ID	Integer	10	0	4	Yes
HUC_CODE	HUC_CODE	HUC_CODE	String	0	0	8	Yes
HUC_NAME	HUC_NAME	HUC_NAME	String	0	0	39	Yes
REG	REG	REG	String	0	0	2	Yes
SUB	SUB	SUB	String	0	0	4	Yes
ACC	ACC	ACC	String	0	0	6	Yes
CAT	CAT	CAT	String	0	0	8	Yes
e00_centro	e00_centro	e00_centro	Double	38	8	8	Yes
e00_cent_1	e00_cent_1	e00_cent_1	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a9_ix1	Yes	Yes
R18_SDE_ROWID_UK	Yes	Yes

ORR_Geodb.DBO.Man_Made_Outlines

Alias	Man-Made Outlines	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 660

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_Geodb.DBO.Man_Made_Outlines.AREA	ORR_Geodb.DBO.Man_Made_Outlines.AREA	ORR_Geodb.DBO.Man_Made_Outlines.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
MANOUTLINE	MANOUTLINE	MANOUTLINE	String	0	0	9	Yes
MANOUTLI_1	MANOUTLI_1	MANOUTLI_1	String	0	0	9	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
DESCRIPTION	DESCRIPTION	DESCRIPTION	String	0	0	50	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a37_ix1	Yes	Yes
R46_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBO.Man_Made_Struct

Alias	Man-Made Structures	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 310

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	String	0	0	9	Yes
TNODE_	TNODE_	TNODE_	String	0	0	9	Yes
LPOLY_	LPOLY_	LPOLY_	String	0	0	9	Yes
RPOLY_	RPOLY_	RPOLY_	String	0	0	9	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
MANSTRUCT_	MANSTRUCT_	MANSTRUCT_	String	0	0	9	Yes
MANSTRUCT1	MANSTRUCT1	MANSTRUCT1	String	0	0	9	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
DESCRIPTIO	DESCRIPTIO	DESCRIPTIO	String	0	0	14	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a36_ix1	Yes	Yes
R45_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBO.Man_Made_Struct_Y12_EFPC

Alias	ORR_GeodB.DBO.Man_Made_Struct_Y12_EFPC	Geometry: Polyline
Dataset	FeatureClass	Average Number of Points: 0
Type		Has M: No Has Z: No
FeatureType	Simple	Grid Size: 260

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	String	0	0	9	Yes
TNODE_	TNODE_	TNODE_	String	0	0	9	Yes
LPOLY_	LPOLY_	LPOLY_	String	0	0	9	Yes
RPOLY_	RPOLY_	RPOLY_	String	0	0	9	Yes
LENGTH	LENGTH	LENGTH	Double	29	11	8	Yes
MANSTRUCT_	MANSTRUCT_	MANSTRUCT_	String	0	0	9	Yes
MANSTRUCT1	MANSTRUCT1	MANSTRUCT1	String	0	0	9	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
DESCRIPTIO	DESCRIPTIO	DESCRIPTIO	String	0	0	14	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a85_ix1	Yes	Yes
R94_SDE_ROWID_UK	Yes	Yes

ORR_Geodb.DBO.Margin

Alias	Margin	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
MARGIN_	MARGIN_	MARGIN_	Integer	10	0	4	Yes
MARGIN_ID	MARGIN_ID	MARGIN_ID	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a38_ix1	Yes	Yes
R47_SDE_ROWID_UK	Yes	Yes

ORR_Geodb.DBO.merged_BO_building_rooflines

Alias	ORR_Geodb.DBO.merged_BO_building_rooflines	Geometry: Polygon
Dataset	FeatureClass	Average Number of Points: 0
Type		Has M: No Has Z: No
FeatureType	Simple	Grid Size: 94

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
AREA_	AREA_	AREA_	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
L07_BO_	L07_BO_	L07_BO_	Integer	10	0	4	Yes
L07_BO_ID	L07_BO_ID	L07_BO_ID	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
BUILD_ID1	BUILD_ID1	BUILD_ID1	String	0	0	10	Yes
L08_BO_	L08_BO_	L08_BO_	Integer	10	0	4	Yes
L08_BO_ID	L08_BO_ID	L08_BO_ID	Integer	10	0	4	Yes
M08_BO_	M08_BO_	M08_BO_	Integer	10	0	4	Yes
M08_BO_ID	M08_BO_ID	M08_BO_ID	Integer	10	0	4	Yes
M09_BO_	M09_BO_	M09_BO_	Integer	10	0	4	Yes
M09_BO_ID	M09_BO_ID	M09_BO_ID	Integer	10	0	4	Yes
N08_BO_	N08_BO_	N08_BO_	Integer	10	0	4	Yes
N08_BO_ID	N08_BO_ID	N08_BO_ID	Integer	10	0	4	Yes
N09_BO_	N09_BO_	N09_BO_	Integer	10	0	4	Yes
N09_BO_ID	N09_BO_ID	N09_BO_ID	Integer	10	0	4	Yes
O09_BO_	O09_BO_	O09_BO_	Integer	10	0	4	Yes
O09_BO_ID	O09_BO_ID	O09_BO_ID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a86_ix1	Yes	Yes
R95_SDE_ROWID_UK	Yes	Yes

ORR_Geodb.DBO.merged_BO_polyline

Alias	ORR_Geodb.DBO.merged_BO_polyline	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 95

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Uniq_ID	Uniq_ID	Uniq_ID	Integer	10	0	4	Yes
Length	Length	Length	Double	17	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields

ORR_Geodb.DBO.merged_HL_hydrography_lines

Alias	Hydrography Lines Y12-EFPC	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 430

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
L07_HL_	L07_HL_	L07_HL_	Integer	10	0	4	Yes
L07_HL_ID	L07_HL_ID	L07_HL_ID	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
NAME	NAME	NAME	String	0	0	30	Yes
L08_HL_	L08_HL_	L08_HL_	Integer	10	0	4	Yes
L08_HL_ID	L08_HL_ID	L08_HL_ID	Integer	10	0	4	Yes
M08_HL_	M08_HL_	M08_HL_	Integer	10	0	4	Yes
M08_HL_ID	M08_HL_ID	M08_HL_ID	Integer	10	0	4	Yes
M09_HL_	M09_HL_	M09_HL_	Integer	10	0	4	Yes
M09_HL_ID	M09_HL_ID	M09_HL_ID	Integer	10	0	4	Yes
N08_HL_	N08_HL_	N08_HL_	Integer	10	0	4	Yes
N08_HL_ID	N08_HL_ID	N08_HL_ID	Integer	10	0	4	Yes
N09_HL_	N09_HL_	N09_HL_	Integer	10	0	4	Yes
N09_HL_ID	N09_HL_ID	N09_HL_ID	Integer	10	0	4	Yes
O09_HL_	O09_HL_	O09_HL_	Integer	10	0	4	Yes
O09_HL_ID	O09_HL_ID	O09_HL_ID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields

ORR_Geodb.DBO.merged_HP_hydrography_polys

Alias	Hydrography polygons Y12-EFPC	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 370

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
AREA_	AREA_	AREA_	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
L07_HP_	L07_HP_	L07_HP_	Integer	10	0	4	Yes
L07_HP_ID	L07_HP_ID	L07_HP_ID	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
NAME	NAME	NAME	String	0	0	30	Yes
M08_HP_	M08_HP_	M08_HP_	Integer	10	0	4	Yes
M08_HP_ID	M08_HP_ID	M08_HP_ID	Integer	10	0	4	Yes
M09_HP_	M09_HP_	M09_HP_	Integer	10	0	4	Yes
M09_HP_ID	M09_HP_ID	M09_HP_ID	Integer	10	0	4	Yes
N08_HP_	N08_HP_	N08_HP_	Integer	10	0	4	Yes
N08_HP_ID	N08_HP_ID	N08_HP_ID	Integer	10	0	4	Yes
N09_HP_	N09_HP_	N09_HP_	Integer	10	0	4	Yes
N09_HP_ID	N09_HP_ID	N09_HP_ID	Integer	10	0	4	Yes
O09_HP_	O09_HP_	O09_HP_	Integer	10	0	4	Yes
O09_HP_ID	O09_HP_ID	O09_HP_ID	Integer	10	0	4	Yes
L08_HP_	L08_HP_	L08_HP_	Integer	10	0	4	Yes
L08_HP_ID	L08_HP_ID	L08_HP_ID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a88_ix1 R97_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes

ORR_Geodb.DBO.merged_HS_hydrography_structures

Alias	Hydrography Structures Y12-EFPC	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 80

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
L07_HS_	L07_HS_	L07_HS_	Integer	10	0	4	Yes
L07_HS_ID	L07_HS_ID	L07_HS_ID	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
L08_HS_	L08_HS_	L08_HS_	Integer	10	0	4	Yes
L08_HS_ID	L08_HS_ID	L08_HS_ID	Integer	10	0	4	Yes
M08_HS_	M08_HS_	M08_HS_	Integer	10	0	4	Yes
M08_HS_ID	M08_HS_ID	M08_HS_ID	Integer	10	0	4	Yes
M09_HS_	M09_HS_	M09_HS_	Integer	10	0	4	Yes
M09_HS_ID	M09_HS_ID	M09_HS_ID	Integer	10	0	4	Yes
N08_HS_	N08_HS_	N08_HS_	Integer	10	0	4	Yes

N08_HS_ID	N08_HS_ID	N08_HS_ID	Integer	10	0	4	Yes
N09_HS_	N09_HS_	N09_HS_	Integer	10	0	4	Yes
N09_HS_ID	N09_HS_ID	N09_HS_ID	Integer	10	0	4	Yes
O09_HS_	O09_HS_	O09_HS_	Integer	10	0	4	Yes
O09_HS_ID	O09_HS_ID	O09_HS_ID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a89_ix1	Yes	Yes	Shape
R98_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.merged_RD_roads

Alias	ORR_GeodB.DBO.merged_RD_roads	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 760

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
L07_RD_	L07_RD_	L07_RD_	Integer	10	0	4	Yes
L07_RD_ID	L07_RD_ID	L07_RD_ID	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
L08_RD_	L08_RD_	L08_RD_	Integer	10	0	4	Yes
L08_RD_ID	L08_RD_ID	L08_RD_ID	Integer	10	0	4	Yes
M08_RD_	M08_RD_	M08_RD_	Integer	10	0	4	Yes
M08_RD_ID	M08_RD_ID	M08_RD_ID	Integer	10	0	4	Yes
M09_RD_	M09_RD_	M09_RD_	Integer	10	0	4	Yes
M09_RD_ID	M09_RD_ID	M09_RD_ID	Integer	10	0	4	Yes
N08_RD_	N08_RD_	N08_RD_	Integer	10	0	4	Yes
N08_RD_ID	N08_RD_ID	N08_RD_ID	Integer	10	0	4	Yes
N09_RD_	N09_RD_	N09_RD_	Integer	10	0	4	Yes
N09_RD_ID	N09_RD_ID	N09_RD_ID	Integer	10	0	4	Yes
O09_RD_	O09_RD_	O09_RD_	Integer	10	0	4	Yes
O09_RD_ID	O09_RD_ID	O09_RD_ID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a90_ix1	Yes	Yes	Shape
R99_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.Monthly_RF_TS

Alias	Monthly Rainfall TS
Dataset Type	Table
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
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OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FeatureID	FeatureID	FeatureID	Integer	10	0	4	Yes
TSTypeID	TSTypeID	TSTypeID	Integer	10	0	4	Yes
TSDateTime	Date	TSDateTime	Date	0	0	36	Yes
TSValue	Rainfall (mm/d)	TSValue	Double	38	8	8	Yes

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
G8FeatureID	Yes	No
G8TSTypeID	Yes	No
R8_SDE_ROWID_UK	Yes	Yes
Fields		
FeatureID		
TSTypeID		
OBJECTID		

ORR_GeodB.DBO.Natural_Outline

Alias	EFPC Natural Outline	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.Natural_Outline.AREA	Outline.AREA	ORR_GeodB.DBO.Natural_Outline.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
NATOULINES	NATOULINES	NATOULINES	String	0	0	9	Yes
NATOULIN_1	NATOULIN_1	NATOULIN_1	String	0	0	9	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
DESCRIPTIO	DESCRIPTIO	DESCRIPTIO	String	0	0	9	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a39_ix1	Yes	Yes
R48_SDE_ROWID_UK	Yes	Yes
Fields		
Shape		
OBJECTID		

ORR_GeodB.DBO.NCLD2001_001

Alias	NCLD2001_001	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 580

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
GRIDCODE	GRIDCODE	GRIDCODE	Double	10	0	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
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Index Name	Ascending	Unique	Fields
a50_ix1	Yes	Yes	Shape
R59_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.NHDFlowline_0600102070105

Alias	NHD Flowline (HUC 0600102070105)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes
		Has Z: Yes
		Grid Size: 1100

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
LengthKM	LengthKM	LengthKM	Double	38	8	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FLOWDIR	FLOWDIR	FLOWDIR	String	0	0	15	Yes
WBAreaComI	WBAreaComI	WBAreaComI	Integer	10	0	4	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
ENABLED	ENABLED	ENABLED	String	0	0	6	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
a17_ix1	Yes	Shape
R26_SDE_ROWID_UK	Yes	OBJECTID

ORR_GeodB.DBO.NHDFlowline_WOC

Alias	WOC NHD Flowline	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes
		Has Z: Yes
		Grid Size: 1800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
LengthKM	LengthKM	LengthKM	Double	38	8	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FLOWDIR	FLOWDIR	FLOWDIR	String	0	0	15	Yes
WBAreaComI	WBAreaComI	WBAreaComI	Integer	10	0	4	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
ENABLED	ENABLED	ENABLED	String	0	0	6	Yes

Shape Shape.len	Shape Shape.len	Shape Shape.len	Geometry Double	0 0	0 0	4 0	Yes No
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Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a18_ix1	Yes	Yes	Shape
R27_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_Geodb.DBO.nodes_WOC

Alias	Nodes WOC	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: Yes Grid Size: 693.67720002339695

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
NodeType	NodeType	NodeType	Small Integer	5	0	2	Yes
NodeName	NodeName	NodeName	String	0	0	80	Yes
Category	Category	Category	String	0	0	80	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
ObjectClass		
NodeType	1	-
River Node (NodeType=1) [Default]		
Weir (NodeType=100)		

Index Name	Ascending	Unique	Fields
a33_ix1	Yes	Yes	Shape
R42_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_Geodb.DBO.Obscured_Areas

Alias	EFPC Obscured Areas	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 470

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_Geodb.DBO.Obscured_Areas.AREA	ORR_Geodb.DBO.Obscured_Areas.AREA	ORR_Geodb.DBO.Obscured_Areas.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
OBSAREA_OBSAREA_ID	OBSAREA_OBSAREA_ID	OBSAREA_OBSAREA_ID	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a40_ix1	Yes	Yes
R49_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBO.ocesoilcontour

Alias	ORR_GeodB.DBO.ocesoilcontour	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
CONTOUR	CONTOUR	CONTOUR	Double	13	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
R180_pk	Yes	OBJECTID
S140_idx	Yes	Shape

ORR_GeodB.DBO.OREIS_AnalyticalMethod_Codes

Alias	ORR_GeodB.DBO.OREIS_AnalyticalMethod_Codes
Dataset	Table
Type	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ANALYSIS_METHOD	ANALYSIS_METHOD	ANALYSIS_METHOD	String	0	0	255	Yes
METHOD_NAME	METHOD_NAME	METHOD_NAME	String	0	0	255	Yes

Subtype Name	Default Value	Domain
Index Name		
R203_SDE_ROWID_UK	Yes	OBJECTID

ORR_GeodB.DBO.OREIS_CategoricalResult_Codes

Alias	ORR_GeodB.DBO.OREIS_CategoricalResult_Codes
Dataset	Table
Type	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
PARAMETER	PARAMETER	PARAMETER	Double	15	6	8	Yes
CATEGORY	CATEGORY	CATEGORY	String	0	0	255	Yes
CAT_RSLT	CAT_RSLT	CAT_RSLT	String	0	0	255	Yes
CAT_DESCRIPTION	CAT_DESCRIPTION	CAT_DESCRIPTION	String	0	0	255	Yes

Subtype Name	Default Value	Domain
Index Name		
R204_SDE_ROWID_UK	Yes	OBJECTID

ORR_Geodb.DBO.OREIS_ChemNames_Codes

Alias	ORR_Geodb.DBO.OREIS_ChemNames_Codes						
Dataset	Table						
Type							
FeatureType							
Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
NOTE__Names_that_begin_with_1	NOTE__Names_that_begin_with_1	NOTE__Names_that_begin_with_1	String	0	0	255	Yes
F2	F2	F2	String	0	0	255	Yes
F3	F3	F3	String	0	0	255	Yes
F4	F4	F4	String	0	0	255	Yes
Subtype Name	Default Value	Domain					
Index Name	Ascending	Unique	Fields				
R208_SDE_ROWID_UK	Yes	Yes	OBJECTID				

ORR_Geodb.DBO.OREIS_Codes_AllOthers

Alias	ORR_Geodb.DBO.OREIS_Codes_AllOthers						
Dataset	Table						
Type							
FeatureType							
Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
CODE_TYPE	CODE_TYPE	CODE_TYPE	String	0	0	255	Yes
CODE	CODE	CODE	String	0	0	255	Yes
CODE_DESCRIPTION	CODE_DESCRIPTION	CODE_DESCRIPTION	String	0	0	255	Yes
Subtype Name	Default Value	Domain					
Index Name	Ascending	Unique	Fields				
R205_SDE_ROWID_UK	Yes	Yes	OBJECTID				

ORR_Geodb.DBO.OREIS_Column_Descriptions

Alias	ORR_Geodb.DBO.OREIS_Column_Descriptions						
Dataset	Table						
Type							
FeatureType							
Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
TABLE_NAME	TABLE_NAME	TABLE_NAME	String	0	0	255	Yes
COLUMN_NAME	COLUMN_NAME	COLUMN_NAME	String	0	0	255	Yes
DESCRIPTION	DESCRIPTION	DESCRIPTION	String	0	0	255	Yes
Subtype Name	Default Value	Domain					
Index Name	Ascending	Unique	Fields				

R152_SDE_ROWID_UK	Yes	Yes	OBJECTID
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ORR_Geodb.DBO.OREIS_data_dictionary_w_project_code

Alias	ORR_Geodb.DBO.OREIS_data_dictionary_w_project_code
Dataset	Table
Type	
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
PROJECT_SITE	PROJECT_SITE	PROJECT_SITE	String	0	0	255	Yes
PROJECT_NAME	PROJECT_NAME	PROJECT_NAME	String	0	0	255	Yes
PROJECT_ALIAS	PROJECT_ALIAS	PROJECT_ALIAS	String	0	0	255	Yes
PROJECT_UNIT	PROJECT_UNIT	PROJECT_UNIT	String	0	0	255	Yes
PROJECT_CODE	PROJECT_CODE	PROJECT_CODE	String	0	0	255	Yes

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
R145_SDE_ROWID_UK	Yes	OBJECTID

ORR_Geodb.DBO.OREIS_GWDEPTH2W_Stations_SY

Alias	GWDEPTH2W Stations (SY)	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 216.89281856998858

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
SPLANE_EAS	SPLANE_EAS	SPLANE_EAS	Double	38	8	8	Yes
SPLANE_NOR	SPLANE_NOR	SPLANE_NOR	Double	38	8	8	Yes
STA_NAME	STA_NAME	STA_NAME	String	0	0	254	Yes
STA_NAME_T	STA_NAME_T	STA_NAME_T	String	0	0	254	Yes
OBJECT_ID	OBJECT_ID	OBJECT_ID	Double	38	8	8	Yes
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
a77_ix1	Yes	Shape
R86_SDE_ROWID_UK	Yes	OBJECTID_1

ORR_Geodb.DBO.OREIS_IndexedColumns

Alias	ORR_Geodb.DBO.OREIS_IndexedColumns
Dataset	Table

Type
FeatureType

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null	
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No	
TABLE_NAME	TABLE_NAME	TABLE_NAME	String	0	0	255	Yes	
INDEXED_COLUMNS	INDEXED_COLUMNS	INDEXED_COLUMNS	String	0	0	255	Yes	
Subtype Name	Default Value						Domain	
Index Name	Ascending	Unique	Fields					
R206_SDE_ROWID_UK	Yes	Yes	OBJECTID					

ORR_Geodb.DBO.OREIS_Parameter_Codes

Alias	ORR_Geodb.DBO.OREIS_Parameter_Codes
Dataset Type	Table
Type	
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null	
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No	
PARAMETER	PARAMETER	PARAMETER	Double	15	6	8	Yes	
CAS_NUMBER	CAS_NUMBER	CAS_NUMBER	String	0	0	255	Yes	
LABEL	LABEL	LABEL	String	0	0	255	Yes	
CHEMICAL_NAME	CHEMICAL_NAME	CHEMICAL_NAME	String	0	0	255	Yes	
Subtype Name	Default Value						Domain	
Index Name	Ascending	Unique	Fields					
R209_SDE_ROWID_UK	Yes	Yes	OBJECTID					

ORR_Geodb.DBO.OREIS_Projects

Alias	ORR_Geodb.DBO.OREIS_Projects
Dataset Type	Table
FeatureType	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null	
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No	
PROJECT_SITE	PROJECT_SITE	PROJECT_SITE	String	0	0	255	Yes	
PROJECT_NAME	PROJECT_NAME	PROJECT_NAME	String	0	0	255	Yes	
PROJECT_ALIAS	PROJECT_ALIAS	PROJECT_ALIAS	String	0	0	255	Yes	
PROJECT_UNIT	PROJECT_UNIT	PROJECT_UNIT	String	0	0	255	Yes	
PROJECT_CODE	PROJECT_CODE	PROJECT_CODE	String	0	0	255	Yes	
Subtype Name	Default Value						Domain	
Index Name	Ascending	Unique	Fields					
R207_SDE_ROWID_UK	Yes	Yes	OBJECTID					

ORR_GeodB.DBO.OREIS_Table_Descriptions

Alias	ORR_GeodB.DBO.OREIS_Table_Descriptions						
Dataset	Table						
Type							
FeatureType							
Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
TABLE_NAME	TABLE_NAME	TABLE_NAME	String	0	0	255	Yes
DESCRIPTION	DESCRIPTION	DESCRIPTION	Blob	0	0	0	Yes
Subtype Name	Default Value	Domain					
Index Name	Ascending	Unique	Fields				
R147_SDE_ROWID_UK	Yes	Yes	OBJECTID				

ORR_GeodB.DBO.OREIS_TaxonCodes

Alias	ORR_GeodB.DBO.OREIS_TaxonCodes						
Dataset Type	Table						
FeatureType							
Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
TAXON_CODE	TAXON_CODE	TAXON_CODE	Double	15	6	8	Yes
SCIENTIFIC_NAME	SCIENTIFIC_NAME	SCIENTIFIC_NAME	String	0	0	255	Yes
COMMON_NAME	COMMON_NAME	COMMON_NAME	String	0	0	255	Yes
ABBREVIATION_CODE	ABBREVIATION_CODE	ABBREVIATION_CODE	String	0	0	255	Yes
TAXON_LEVEL_CODE	TAXON_LEVEL_CODE	TAXON_LEVEL_CODE	String	0	0	255	Yes
TAXON_AUTHOR	TAXON_AUTHOR	TAXON_AUTHOR	String	0	0	255	Yes
Subtype Name	Default Value	Domain					
Index Name	Ascending	Unique	Fields				
R210_SDE_ROWID_UK	Yes	Yes	OBJECTID				

ORR_GeodB.DBO.ORR_2006_bo_Merge

Alias	ORR Buildings (2006)	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FC	FC	FC	Small Integer	5	0	2	Yes
BUILD_ID1	BUILD_ID1	BUILD_ID1	String	0	0	10	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Shape.STArea() Shape.STLength()	Shape.STArea() Shape.STLength()	Shape.STArea() Shape.STLength()	Double Double	0 0	0 0	No No
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Subtype Name	Default Value		Domain
Index Name	Ascending	Unique	Fields
R181_pk	Yes	Yes	OBJECTID
S141_idx	Yes	Yes	Shape

ORR_GeodB.DBO.ORR_2006_cl_Merge

Alias	ORR Contour Lines (2006)	Geometry: Polyline				
Dataset Type	FeatureClass	Average Has Has Grid Size:-6	Number	of	Points:0 M:No Z:No	
FeatureType	Simple					

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FC	FC	FC	Small Integer	5	0	2	Yes
ELEV	ELEV	ELEV	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value		Domain
Index Name	Ascending	Unique	Fields
R211_pk	Yes	Yes	OBJECTID
S163_idx	Yes	Yes	Shape

ORR_GeodB.DBO.ORR_2006_hi_Merge

Alias	Hydrography Lines ORR-2006	Geometry: Polyline				
Dataset Type	FeatureClass	Average Number of Points:0 Has M:No Has Z:No Grid Size:-6				
FeatureType	Simple					

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
NAME	NAME	NAME	String	0	0	30	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value		Domain
Index Name	Ascending	Unique	Fields
R185_pk	Yes	Yes	OBJECTID_1
S145_idx	Yes	Yes	Shape

ORR_GeodB.DBO.ORR_2006_hp_Merge

Alias	Hydrography Polygons ORR-2006	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
ORR_GeodB.DBO.ORR_2006_ORR_GeodB.DBO.ORR_2006_ORR_GeodB.DBO.ORR_2006	hp_Merge.AREA	hp_Merge.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
NAME	NAME	NAME	String	0	0	30	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R186_pk	Yes	Yes
S146_idx	Yes	Yes
		Fields
		OBJECTID_1
		Shape

ORR_GeodB.DBO.ORR_2006_hs_Merge

Alias	Hydrography Structures ORR-2006	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R187_pk	Yes	Yes
S147_idx	Yes	Yes
		Fields
		OBJECTID_1
		Shape

ORR_GeodB.DBO.ORR_2006_mo_Merge

Alias	ORR Man Made Outlines (2006)	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Prec	Scale	Leng	Nu
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
ORR_GeodB.DBO.ORR_2006_mo_Me	ORR_GeodB.DBO.ORR_2006_mo_Me	ORR_GeodB.DBO.ORR_2006_mo_Me	Double	38	8	8	Yes
rge.AREA	rge.AREA	rge.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
R188_pk	Yes	OBJECTID_1
S148_idx	Yes	Shape

ORR_GeodB.DBO.ORR_2006_ms_Merge

Alias	ORR Man Made Structures (2006)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
R189_pk	Yes	OBJECTID_1
S149_idx	Yes	Shape

ORR_GeodB.DBO.ORR_2006_no_Merge

Alias	ORR Natural Outline (2006)	Geometry: Polygon
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Dataset Type FeatureClass**Average Number of Points:**0**FeatureType** Simple**Has M:**No**Has Z:**No**Grid Size:**-6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
ORR_GeodB.DBO.ORR_2006_ORR_GeodB.DBO.ORR_2006_ORR_GeodB.DBO.ORR_2006			Double	38	8	8	Yes
no_Merge.AREA	no_Merge.AREA	no_Merge.AREA					
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R190_pk	Yes	Yes
S150_idx	Yes	Yes

ORR_GeodB.DBO.ORR_2006_oa_Merge

Alias ORR Obscured Areas (2006)**Geometry:**Polygon**Dataset Type** FeatureClass**Average Number of Points:**0**FeatureType** Simple**Has M:**No**Has Z:**No**Grid Size:**-6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
ORR_GeodB.DBO.ORR_2006_ORR_GeodB.DBO.ORR_2006_ORR_GeodB.DBO.ORR_2006			Double	38	8	8	Yes
oa_Merge.AREA	oa_Merge.AREA	oa_Merge.AREA					
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R191_pk	Yes	Yes
S151_idx	Yes	Yes

ORR_GeodB.DBO.ORR_2006_rd_Merge

Alias ORR Roads (2006)**Geometry:**Polyline**Dataset Type** FeatureClass**Average Number of Points:**0**FeatureType** Simple**Has M:**No**Has Z:**No**Grid Size:**-6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes

TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
Lpoly_	Lpoly_	Lpoly_	Integer	10	0	4	Yes
Rpoly_	Rpoly_	Rpoly_	Integer	10	0	4	Yes
Length	Length	Length	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
R192_pk	Yes	Yes	OBJECTID_1
S152_idx	Yes	Yes	Shape

ORR_GeodB.DBO.ORR_2006_rr_Merge

Alias	ORR Railroads (2006)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
Lpoly_	Lpoly_	Lpoly_	Integer	10	0	4	Yes
Rpoly_	Rpoly_	Rpoly_	Integer	10	0	4	Yes
Length	Length	Length	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
NAME	NAME	NAME	String	0	0	30	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
R193_pk	Yes	Yes	OBJECTID_1
S153_idx	Yes	Yes	Shape

ORR_GeodB.DBO.ORR_2006_ts_Merge

Alias	ORR Transportation Structures	Geometry: Polyline
	(2006)	Average Number of Points: 0
Dataset Type	FeatureClass	Has M: No
FeatureType	Simple	Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No

OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Id	Id	Id	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
R194_pk	Yes	Yes	OBJECTID_1
S154_idx	Yes	Yes	Shape

ORR_GeodB.DBO.ORR_Boundary_Polygon

Alias	ORR Boundary (Polygon)	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 22000

Field Name	Alias Name	Model Name	Type	Prec	Scale	Leng	Nu
				n.	e	th	ll
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	38	8	8	Yes
ORR_GeodB.DBO.ORR_Boundary_Poly	ORR_GeodB.DBO.ORR_Boundary_Poly	ORR_GeodB.DBO.ORR_Boundary_Poly	Double	38	8	8	Yes
ygon.AREA	ygon.AREA	ygon.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
ACRES	ACRES	ACRES	Double	38	8	8	Yes
HECTARES	HECTARES	HECTARES	Double	38	8	8	Yes
Shape	Shape	Shape	Geome	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a2_ix1	Yes	Yes	Shape
R11_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.ORR_Watersheds

Alias	ORR Watersheds	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 27000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
				OID	10	0	No
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No

ORR_GeodB.DBO.ORR_	ORR_GeodB.DBO.ORR_	Watersheds.AREA	Double	38	8	8	Yes
Watersheds.AREA	Watersheds.AREA	Watersheds.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
WBD1004ABC	WBD1004ABC	WBD1004ABC	Integer	10	0	4	Yes
WBD1004A_1	WBD1004A_1	WBD1004A_1	Integer	10	0	4	Yes
TNDRAFTCB_	TNDRAFTCB_	TNDRAFTCB_	Double	38	8	8	Yes
DRAFTHUA_	DRAFTHUA_	DRAFTHUA_	Double	38	8	8	Yes
DRAFTHUA_I	DRAFTHUA_I	DRAFTHUA_I	Double	38	8	8	Yes
HUC_8	HUC_8	HUC_8	String	0	0	8	Yes
HUC_10	HUC_10	HUC_10	String	0	0	10	Yes
ACRES	ACRES	ACRES	Double	38	8	8	Yes
HUC_12	HUC_12	HUC_12	String	0	0	12	Yes
STATES	STATES	STATES	String	0	0	12	Yes
NCONTRB_A	NCONTRB_A	NCONTRB_A	Double	38	8	8	Yes
HU_10_DS	HU_10_DS	HU_10_DS	String	0	0	10	Yes
HU_10_NAME	HU_10_NAME	HU_10_NAME	String	0	0	80	Yes
HU_10_MOD	HU_10_MOD	HU_10_MOD	String	0	0	20	Yes
HU_10_TYPE	HU_10_TYPE	HU_10_TYPE	String	0	0	1	Yes
HU_12_DS	HU_12_DS	HU_12_DS	String	0	0	12	Yes
HU_12_NAME	HU_12_NAME	HU_12_NAME	String	0	0	80	Yes
HU_12_MOD	HU_12_MOD	HU_12_MOD	String	0	0	20	Yes
HU_12_TYPE	HU_12_TYPE	HU_12_TYPE	String	0	0	1	Yes
DRAFTACRE	DRAFTACRE	DRAFTACRE	Double	38	8	8	Yes
A10DIGIT	A10DIGIT	A10DIGIT	String	0	0	2	Yes
A12DIGIT	A12DIGIT	A12DIGIT	String	0	0	2	Yes
LABEL	LABEL	LABEL	String	0	0	6	Yes
HU_8_NAME	HU_8_NAME	HU_8_NAME	String	0	0	80	Yes
HUC_6	HUC_6	HUC_6	String	0	0	6	Yes
HU_6_NAME	HU_6_NAME	HU_6_NAME	String	0	0	80	Yes
HUC_4	HUC_4	HUC_4	String	0	0	4	Yes
HU_4_NAME	HU_4_NAME	HU_4_NAME	String	0	0	80	Yes
HUC_2	HUC_2	HUC_2	String	0	0	2	Yes
HU_2_NAME	HU_2_NAME	HU_2_NAME	String	0	0	80	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
a10_ix1	Yes	Shape
R19_SDE_ROWID_UK	Yes	OBJECTID

ORR_GeodB.DBO.outfalls

Alias	Y-12 Outfalls	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 214.27933655601814

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
STA_NAME	STA_NAME	STA_NAME	String	0	0	50	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name		
a92_ix1	Yes	Shape
R101_SDE_ROWID_UK	Yes	OBJECTID

ORR_GeodB.DBO.PCE

Alias	PCE Conc. (points)	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0 Has M:No Has Z:No Grid Size: 81.637479280472007
FeatureType	Simple	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
STA_NAME	STA_NAME	STA_NAME	String	0	0	254	Yes
SPLANE_EAS	SPLANE_EAS	SPLANE_EAS	Double	21	6	8	Yes
SPLANE_NOR	SPLANE_NOR	SPLANE_NOR	Double	21	6	8	Yes
RESULTS_mg	RESULTS_mg	RESULTS_mg	Double	21	6	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name a80_ix1 R89_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes Fields Shape OBJECTID

ORR_GeodB.DBO.PCE_Digitized

Alias	PCE Digitized	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 260

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Uniq_ID	Uniq_ID	Uniq_ID	Integer	10	0	4	Yes
Length	Length	Length	Double	17	8	8	Yes
TL_mg_p_kg	TL_mg_p_kg	TL_mg_p_kg	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a83_ix1 R92_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes Fields Shape OBJECTID

ORR_GeodB.DBO.PCE_GW_SY

Alias	SY GW PCE Conc. (points)	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Wells	Wells	Wells	String	0	0	254	Yes
C	C	C	Double	24	6	8	Yes
Concentrat	Concentrat	Concentrat	Double	24	6	8	Yes
East	East	East	Double	24	6	8	Yes
North	North	North	Double	24	6	8	Yes
Soil_C	Soil_C	Soil_C	Double	38	8	8	Yes
DCE_C	DCE_C	DCE_C	Double	38	8	8	Yes
DCE_SOIL	DCE_SOIL	DCE_SOIL	Double	38	8	8	Yes
CISDCE_C	CISDCE_C	CISDCE_C	Double	38	8	8	Yes
TCE_SOIL	TCE_SOIL	TCE_SOIL	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value		Domain
Index Name	Ascending	Unique	Fields
R172_pk	Yes	Yes	OBJECTID
S132_idx	Yes	Yes	Shape

ORR_GeodB.DBO.pce_plume

Alias	PCE plume (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
CONTOUR	CONTOUR	CONTOUR	Double	21	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value		Domain
Index Name	Ascending	Unique	Fields
R173_pk	Yes	Yes	OBJECTID
S133_idx	Yes	Yes	Shape

ORR_GeodB.DBO.PCE_PLUME_BD

Alias	PCE Plume Boundary	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value		Domain
Index Name	Ascending	Unique	Fields
R174_pk	Yes	Yes	OBJECTID
S134_idx	Yes	Yes	Shape

ORR_GeodB.DBO.pce_soil

Alias	Soil PCE Conc. (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
CONTOUR	CONTOUR	CONTOUR	Double	21	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R175_pk	Yes	Yes
S135_idx	Yes	Yes

ORR_GeodB.DBO.pce_soil_1

Alias	Soil PCE Conc. 1 (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
CONTOUR	CONTOUR	CONTOUR	Double	21	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
R176_pk	Yes	Yes
S136_idx	Yes	Yes

ORR_GeodB.DBO.Phase1_2ROD

Alias	Phase 1-2 ROD	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1100

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Uniq_ID	Uniq_ID	Uniq_ID	Integer	10	0	4	Yes
AREA_	AREA_	AREA_	Double	26	8	8	Yes
Hg	Hg	Hg	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a52_ix1	Yes	Yes
R61_SDE_ROWID_UK	Yes	Yes

ORR_GeodB.DBO.Point

Alias	ORR_GeodB.DBO.Point	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:Yes Grid Size:-6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	ObjectID	ObjectID	OID	10	0	4	No
EntID	EntID	EntID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique

ORR_GeodB.DBO.Point_1

Alias	ORR_GeodB.DBO.Point_1	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:Yes Grid Size:-6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	ObjectID	ObjectID	OID	10	0	4	No
EntID	EntID	EntID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique

ORR_GeodB.DBO.Railroads

Alias	EFPC Railroads	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size:1500

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
RAILROAD_	RAILROAD_	RAILROAD_	Integer	10	0	4	Yes
RAILROAD_I	RAILROAD_I	RAILROAD_I	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
NAME	NAME	NAME	String	0	0	30	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a41_ix1	Yes	Yes	Shape
R50_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_Geodb.DBO.reaches_WOC

Alias	Reaches WOC	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes Has Z: Yes Grid Size: 1100

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
ReachType	ReachType	ReachType	Small Integer	5	0	2	Yes
ReachName	ReachName	ReachName	String	0	0	80	Yes
Category	Category	Category	String	0	0	80	Yes
FlowDir	FlowDir	FlowDir	Small Integer	5	0	2	Yes
Routing	Routing	Routing	Small Integer	5	0	2	Yes
DownChainage	DownChainage	DownChainage	Double	38	8	8	Yes
DownChainageFixed	DownChainageFixed	DownChainageFixed	Small Integer	5	0	2	Yes
UpstreamNode	UpstreamNode	UpstreamNode	Integer	10	0	4	Yes
DownstreamNode	DownstreamNode	DownstreamNode	Integer	10	0	4	Yes
BranchID	BranchID	BranchID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
ObjectClass		
ReachType	0	-
FlowDir	0	-
Routing	0	-

Index Name	Ascending	Unique	Fields
a31_ix1	Yes	Yes	Shape
R40_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_Geodb.DBO.river_network

Alias	River Network	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
RiverName	RiverName	RiverName	String	0	0	254	Yes
TopoID	TopoID	TopoID	String	0	0	254	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields

a23_ix1	Yes	Yes	Shape
R32_SDE_ROWID_	Yes	Yes	OBJECTID

ORR_GeodB.DBO.Roads

Alias	EFPC Roads	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 730

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	String	0	0	9	Yes
TNODE_	TNODE_	TNODE_	String	0	0	9	Yes
LPOLY_	LPOLY_	LPOLY_	String	0	0	9	Yes
RPOLY_	RPOLY_	RPOLY_	String	0	0	9	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
ROADS_	ROADS_	ROADS_	String	0	0	9	Yes
ROADS_ID	ROADS_ID	ROADS_ID	String	0	0	9	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
DESCRPTIO	DESCRPTIO	DESCRPTIO	String	0	0	15	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a42_ix1	Yes	Yes	Shape
R51_SDE_ROWID_	Yes	Yes	OBJECTID

ORR_GeodB.DBO.Scrap_Yard

Alias	Scrap Yard Area 1	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 250

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
NAME	NAME	NAME	String	0	0	50	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a72_ix1	Yes	Yes	Shape
R81_SDE_ROWID_	Yes	Yes	OBJECTID

ORR_GeodB.DBO.Scrapyard

Alias	Scrap Yard Area 2	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 200

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
NAME	NAME	NAME	String	0	0	50	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a73_ix1 R82_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes

ORR_GeodB.DBO.Soils

Alias	ORR Soils	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 740

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.Soils.AREA	ORR_GeodB.DBO.Soils.AREA	ORR_GeodB.DBO.Soils.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
SOILS_	SOILS_	SOILS_	Integer	10	0	4	Yes
SOILS_ID	SOILS_ID	SOILS_ID	Integer	10	0	4	Yes
RASOIL6_	RASOIL6_	RASOIL6_	Integer	10	0	4	Yes
SOIL5_	SOIL5_	SOIL5_	Integer	10	0	4	Yes
S_CODE	S_CODE	S_CODE	String	0	0	5	Yes
GEOL_C	GEOL_C	GEOL_C	Small Integer	5	0	2	Yes
GEOM_C	GEOM_C	GEOM_C	Small Integer	5	0	2	Yes
SOIL_C	SOIL_C	SOIL_C	Small Integer	5	0	2	Yes
SLOPE_C	SLOPE_C	SLOPE_C	Small Integer	5	0	2	Yes
EROSION_C	EROSION_C	EROSION_C	Small Integer	5	0	2	Yes
SOILSERIES	SOILSERIES	SOILSERIES	Small Integer	5	0	2	Yes
SOILC	SOILC	SOILC	Small Integer	5	0	2	Yes
SOILI	SOILI	SOILI	Small Integer	5	0	2	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a53_ix1 R62_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes

ORR_GeodB.DBO.Soils_1

Alias	Soils 1	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 50000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.Soils_1.AREA	ORR_GeodB.DBO.Soils_1.AREA	ORR_GeodB.DBO.Soils_1.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
TNSOILS_	TNSOILS_	TNSOILS_	Double	38	8	8	Yes
TNSOILS_ID	TNSOILS_ID	TNSOILS_ID	Double	38	8	8	Yes
MUID	MUID	MUID	String	0	0	7	Yes
MUNAME	MUNAME	MUNAME	String	0	0	109	Yes
MLRA	MLRA	MLRA	String	0	0	4	Yes
PRIMFML	PRIMFML	PRIMFML	String	0	0	2	Yes
MUACRES	MUACRES	MUACRES	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a103_ix1 R116_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes Fields Shape OBJECTID

ORR_GeodB.DBO.streams

Alias	ORR Streams	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes Has Z: Yes Grid Size: 1100

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
LengthKM	LengthKM	LengthKM	Double	29	11	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FLOWDIR	FLOWDIR	FLOWDIR	String	0	0	15	Yes
WBAreaComI	WBAreaComI	WBAreaComI	Integer	10	0	4	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	29	11	8	Yes
ENABLED	ENABLED	ENABLED	String	0	0	6	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a20_ix1	Ascending Yes	Unique Yes Fields Shape

R29_SDE_ROWID_UK	Yes	Yes	OBJECTID
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ORR_GeodB.DBO.streams_ddUBC

Alias	streams_ddUBC	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:Yes Has Z:Yes Grid Size:1800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
LengthKM	LengthKM	LengthKM	Double	29	11	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FLOWDIR	FLOWDIR	FLOWDIR	String	0	0	15	Yes
WBAreaComI	WBAreaComI	WBAreaComI	Integer	10	0	4	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	29	11	8	Yes
ENABLED	ENABLED	ENABLED	String	0	0	6	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
a24_ix1	Yes	Shape
R33_SDE_ROWID_UK	Yes	OBJECTID

ORR_GeodB.DBO.streams_ddUEFPC

Alias	streams_ddUEFPC	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:Yes Has Z:Yes Grid Size:2100

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
LengthKM	LengthKM	LengthKM	Double	29	11	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FLOWDIR	FLOWDIR	FLOWDIR	String	0	0	15	Yes
WBAreaComI	WBAreaComI	WBAreaComI	Integer	10	0	4	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	29	11	8	Yes
ENABLED	ENABLED	ENABLED	String	0	0	6	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
a25_ix1	Yes	Shape

R34_SDE_ROWID_UK	Yes	Yes	OBJECTID
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ORR_GeodB.DBO.streams_EFPC

Alias	streams_EFPC	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:Yes Has Z:Yes Grid Size:950

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
LengthKM	LengthKM	LengthKM	Double	29	11	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FLOWDIR	FLOWDIR	FLOWDIR	String	0	0	15	Yes
WBAreaComI	WBAreaComI	WBAreaComI	Integer	10	0	4	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	29	11	8	Yes
ENABLED	ENABLED	ENABLED	String	0	0	6	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
a26_ix1	Ascending	Fields
R35_SDE_ROWID_UK	Yes	Shape OBJECTID

ORR_GeodB.DBO.streams_UBC

Alias	UBC Streams	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:Yes Has Z:Yes Grid Size:750

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
LengthKM	LengthKM	LengthKM	Double	29	11	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FLOWDIR	FLOWDIR	FLOWDIR	String	0	0	15	Yes
WBAreaComI	WBAreaComI	WBAreaComI	Integer	10	0	4	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	29	11	8	Yes
ENABLED	ENABLED	ENABLED	String	0	0	6	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
a28_ix1	Ascending	Fields
	Yes	Shape

R37_SDE_ROWID_UK	Yes	Yes	OBJECTID
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ORR_Geodb.DBO.streams_UEFPC

Alias	UEFPC Streams	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes Has Z: Yes Grid Size: 1700

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
LengthKM	LengthKM	LengthKM	Double	29	11	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FLOWDIR	FLOWDIR	FLOWDIR	String	0	0	15	Yes
WBAreaComI	WBAreaComI	WBAreaComI	Integer	10	0	4	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	29	11	8	Yes
ENABLED	ENABLED	ENABLED	String	0	0	6	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a29_ix1 R38_SDE_ROWID_UK	Yes Yes	Fields Shape OBJECTID

ORR_Geodb.DBO.SY

Alias	Scrap Yard Model Domain	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 2000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
SY	SY	SY	String	0	0	50	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a74_ix1 R83_SDE_ROWID_UK	Yes Yes	Fields Shape OBJECTID

ORR_GeodB.DBO.TCE

Alias	TCE Conc. (points)	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 81.832551193666731

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
STA_NAME	STA_NAME	STA_NAME	String	0	0	254	Yes
SPLANE_EAS	SPLANE_EAS	SPLANE_EAS	Double	21	6	8	Yes
SPLANE_NOR	SPLANE_NOR	SPLANE_NOR	Double	21	6	8	Yes
RESULTS_mg	RESULTS_mg	RESULTS_mg	Double	21	6	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name		
a81_ix1	Yes	Fields Shape
R90_SDE_ROWID_UK	Yes	OBJECTID

ORR_GeodB.DBO.TCE_digitized

Alias	TCE digitized	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 260

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name		
a84_ix1	Yes	Fields Shape
R93_SDE_ROWID_UK	Yes	OBJECTID

ORR_GeodB.DBO.tce_plume

Alias	TCE plume (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
CONTOUR	CONTOUR	CONTOUR	Double	21	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
R177_pk	Yes	Yes	OBJECTID
S137_idx	Yes	Yes	Shape

ORR_GeodB.DBO.tce_soil

Alias	Soil TCE Conc. (contours)	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0 Has M:No Has Z:No Grid Size:-6
FeatureType	Simple	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
CONTOUR	CONTOUR	CONTOUR	Double	21	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
R178_pk	Yes	Yes	OBJECTID
S138_idx	Yes	Yes	Shape

ORR_GeodB.DBO.tn_streams

Alias	Tennessee Streams	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0 Has M:No Has Z:No Grid Size:0.025600000000000001
FeatureType	Simple	

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Double	11	0	8	Yes
TNODE_	TNODE_	TNODE_	Double	11	0	8	Yes
LPOLY_	LPOLY_	LPOLY_	Double	11	0	8	Yes
RPOLY_	RPOLY_	RPOLY_	Double	11	0	8	Yes
LENGTH	LENGTH	LENGTH	Double	13	6	8	Yes
DSTR83_	DSTR83_	DSTR83_	Double	11	0	8	Yes
DSTR83_ID	DSTR83_ID	DSTR83_ID	Double	11	0	8	Yes
OWNED_BY	OWNED_BY	OWNED_BY	Double	12	0	8	Yes
STREETNAME	STREETNAME	STREETNAME	String	0	0	44	Yes
STREETTYPE	STREETTYPE	STREETTYPE	String	0	0	5	Yes
DIR	DIR	DIR	String	0	0	3	Yes
SUFFIXDIR	SUFFIXDIR	SUFFIXDIR	String	0	0	3	Yes
FROMLEFT	FROMLEFT	FROMLEFT	Integer	10	0	4	Yes
TOLEFT	TOLEFT	TOLEFT	Integer	10	0	4	Yes
FROMRIGHT	FROMRIGHT	FROMRIGHT	Integer	10	0	4	Yes
TORIGHT	TORIGHT	TORIGHT	Integer	10	0	4	Yes
CFCC	CFCC	CFCC	String	0	0	5	Yes
ALT1	ALT1	ALT1	String	0	0	44	Yes
ALT2	ALT2	ALT2	String	0	0	44	Yes
ALT3	ALT3	ALT3	String	0	0	44	Yes
TYPE	TYPE	TYPE	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields

a91_ix1	Yes	Yes	Shape
R100_SDE_ROWID_	UK	OBJECTID	

ORR_GeodB.DBO.tnlandcov

Alias	Tennessee Land Cover	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1200 ,106800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.tnlandcov.AREA	ORR_GeodB.DBO.tnlandcov.AREA	ORR_GeodB.DBO.tnlandcov.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
VALUE_	VALUE_	VALUE_	Integer	10	0	4	Yes
COUNT_	COUNT_	COUNT_	Integer	10	0	4	Yes
CLASS_NAME	CLASS_NAME	CLASS_NAME	String	0	0	30	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
a47_ix1	Yes	Shape
R56_SDE_ROWID_	UK	OBJECTID

ORR_GeodB.DBO.Transport_Struct

Alias	EFPC Transportation Structures	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 230

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
TRANSTRUCT	TRANSTRUCT	TRANSTRUCT	String	0	0	9	Yes
TRANSTRU_1	TRANSTRU_1	TRANSTRU_1	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
DESCRPTIO	DESCRPTIO	DESCRPTIO	String	0	0	15	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Fields
a43_ix1	Yes	Shape
R52_SDE_ROWID_	UK	OBJECTID

ORR_GeodB.DBO.TSType

Alias TSType
Dataset Type Table
FeatureType

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
TSTypeID	TSTypeID	TSTypeID	Integer	10	0	4	Yes
Variable	Variable	Variable	String	0	0	30	Yes
Units	Units	Units	String	0	0	30	Yes
IsRegular	IsRegular	IsRegular	Integer	10	0	4	Yes
TSInterval	TSInterval	TSInterval	Integer	10	0	4	Yes
DataType	DataType	DataType	Integer	10	0	4	Yes
Origin	Origin	Origin	Integer	10	0	4	Yes

Subtype Name	Default Value	Domain
ObjectClass		
IsRegular		AHBoolean
TSInterval		TSIntervalType
DataType		TSDataType
Origin		TSOrigins

Index Name	Ascending	Unique	Fields
G10TTypeID	Yes	No	TTypeID
R10_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.UBC

Alias Upper Bear Creek Model Domain
Dataset Type FeatureClass
FeatureType Simple

Geometry:Polygon
Average Number of Points:0
Has M:No
Has Z:No
Grid Size:1600

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
HYDROID	HYDROID	HYDROID	Double	10	0	8	Yes
NAME	NAME	NAME	String	0	0	25	Yes
DESCRIPT	DESCRIPT	DESCRIPT	String	0	0	25	Yes
DRNAREA	DRNAREA	DRNAREA	Double	13	3	8	Yes
CONTDA	CONTDA	CONTDA	Double	15	3	8	Yes
HA1PCT	HA1PCT	HA1PCT	Double	11	1	8	Yes
HA2PCT	HA2PCT	HA2PCT	Double	11	1	8	Yes
HA3PCT	HA3PCT	HA3PCT	Double	11	1	8	Yes
HA4PCT	HA4PCT	HA4PCT	Double	11	1	8	Yes
TNCLFACT2	TNCLFACT2	TNCLFACT2	Double	15	4	8	Yes
SOILPERM	SOILPERM	SOILPERM	Double	13	3	8	Yes
TNSOILFAC	TNSOILFAC	TNSOILFAC	Double	13	1	8	Yes
RECESS	RECESS	RECESS	Double	11	1	8	Yes
CSL10_85	CSL10_85	CSL10_85	Double	15	3	8	Yes
PK2	PK2	PK2	Double	15	2	8	Yes
PK5	PK5	PK5	Double	15	2	8	Yes
PK10	PK10	PK10	Double	15	2	8	Yes
PK25	PK25	PK25	Double	15	2	8	Yes
PK50	PK50	PK50	Double	15	2	8	Yes
PK100	PK100	PK100	Double	15	2	8	Yes
PK500	PK500	PK500	Double	15	2	8	Yes
M3D2Y	M3D2Y	M3D2Y	Double	15	2	8	Yes
M3D10Y	M3D10Y	M3D10Y	Double	15	2	8	Yes
M3D20Y	M3D20Y	M3D20Y	Double	15	2	8	Yes
M7D10Y	M7D10Y	M7D10Y	Double	15	2	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a70_ix1	Yes	Yes	Shape
R79_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_Geodb.DBO.UBC_Merge

Alias	EFPC-UBC Merge	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 4300

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
HYDROID	HYDROID	HYDROID	Double	10	0	8	Yes
NAME	NAME	NAME	String	0	0	25	Yes
DESCRIPT	DESCRIPT	DESCRIPT	String	0	0	25	Yes
DRNAREA	DRNAREA	DRNAREA	Double	13	3	8	Yes
CONTDA	CONTDA	CONTDA	Double	15	3	8	Yes
HA1PCT	HA1PCT	HA1PCT	Double	11	1	8	Yes
HA2PCT	HA2PCT	HA2PCT	Double	11	1	8	Yes
HA3PCT	HA3PCT	HA3PCT	Double	11	1	8	Yes
HA4PCT	HA4PCT	HA4PCT	Double	11	1	8	Yes
TNCLFACT2	TNCLFACT2	TNCLFACT2	Double	15	4	8	Yes
SOILPERM	SOILPERM	SOILPERM	Double	13	3	8	Yes
TNSOILFAC	TNSOILFAC	TNSOILFAC	Double	13	1	8	Yes
RECESS	RECESS	RECESS	Double	11	1	8	Yes
CSL10_85	CSL10_85	CSL10_85	Double	15	3	8	Yes
PK2	PK2	PK2	Double	15	2	8	Yes
PK5	PK5	PK5	Double	15	2	8	Yes
PK10	PK10	PK10	Double	15	2	8	Yes
PK25	PK25	PK25	Double	15	2	8	Yes
PK50	PK50	PK50	Double	15	2	8	Yes
PK100	PK100	PK100	Double	15	2	8	Yes
PK500	PK500	PK500	Double	15	2	8	Yes
M3D2Y	M3D2Y	M3D2Y	Double	15	2	8	Yes
M3D10Y	M3D10Y	M3D10Y	Double	15	2	8	Yes
M3D20Y	M3D20Y	M3D20Y	Double	15	2	8	Yes
M7D10Y	M7D10Y	M7D10Y	Double	15	2	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a71_ix1	Yes	Yes	Shape
R80_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_Geodb.DBO.UEFPC

Alias	UEFPC Model Domain	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 4300

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
HYDROID	HYDROID	HYDROID	Double	10	0	8	Yes

NAME	NAME	NAME	String	0	0	25	Yes
DESCRIPT	DESCRIPT	DESCRIPT	String	0	0	25	Yes
DRNAREA	DRNAREA	DRNAREA	Double	13	3	8	Yes
CONTDA	CONTDA	CONTDA	Double	15	3	8	Yes
HA1PCT	HA1PCT	HA1PCT	Double	11	1	8	Yes
HA2PCT	HA2PCT	HA2PCT	Double	11	1	8	Yes
HA3PCT	HA3PCT	HA3PCT	Double	11	1	8	Yes
HA4PCT	HA4PCT	HA4PCT	Double	11	1	8	Yes
TNCLFACT2	TNCLFACT2	TNCLFACT2	Double	15	4	8	Yes
SOILPERM	SOILPERM	SOILPERM	Double	13	3	8	Yes
TNSOILFAC	TNSOILFAC	TNSOILFAC	Double	13	1	8	Yes
RECESS	RECESS	RECESS	Double	11	1	8	Yes
CSL10_85	CSL10_85	CSL10_85	Double	15	3	8	Yes
PK2	PK2	PK2	Double	15	2	8	Yes
PK5	PK5	PK5	Double	15	2	8	Yes
PK10	PK10	PK10	Double	15	2	8	Yes
PK25	PK25	PK25	Double	15	2	8	Yes
PK50	PK50	PK50	Double	15	2	8	Yes
PK100	PK100	PK100	Double	15	2	8	Yes
PK500	PK500	PK500	Double	15	2	8	Yes
M3D2Y	M3D2Y	M3D2Y	Double	15	2	8	Yes
M3D10Y	M3D10Y	M3D10Y	Double	15	2	8	Yes
M3D20Y	M3D20Y	M3D20Y	Double	15	2	8	Yes
M7D10Y	M7D10Y	M7D10Y	Double	15	2	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value		Domain
Index Name	Ascending		Unique
a69_ix1	Yes	Yes	Shape
R78_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.USGS_stations

Alias	USGS Stations	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 2332.8367065800826

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.USGS_stations.AREA	ORR_GeodB.DBO.USGS_stations.AREA	ORR_GeodB.DBO.USGS_stations.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
QSITESDD_	QSITESDD_	QSITESDD_	Integer	10	0	4	Yes
QSITESDD_I	QSITESDD_I	QSITESDD_I	Integer	10	0	4	Yes
STATION_NO	STATION_NO	STATION_NO	String	0	0	15	Yes
YRMONDY1	YRMONDY1	YRMONDY1	Integer	10	0	4	Yes
YRMONDYN	YRMONDYN	YRMONDYN	Integer	10	0	4	Yes
AVE	AVE	AVE	Double	38	8	8	Yes
STD	STD	STD	Double	38	8	8	Yes
LONDD	LONDD	LONDD	Double	38	8	8	Yes
LATDD	LATDD	LATDD	Double	38	8	8	Yes
NDAYS	NDAYS	NDAYS	Integer	10	0	4	Yes
MIN_	MIN_	MIN_	Double	38	8	8	Yes
P1	P1	P1	Double	38	8	8	Yes
P5	P5	P5	Double	38	8	8	Yes
P10	P10	P10	Double	38	8	8	Yes
P20	P20	P20	Double	38	8	8	Yes
P25	P25	P25	Double	38	8	8	Yes
P50	P50	P50	Double	38	8	8	Yes
P75	P75	P75	Double	38	8	8	Yes

P80	P80	P80	Double	38	8	8	Yes
P90	P90	P90	Double	38	8	8	Yes
P95	P95	P95	Double	38	8	8	Yes
P99	P99	P99	Double	38	8	8	Yes
MAX_YEARSBFI	MAX_YEARSBFI	MAX_YEARSBFI	Double	38	8	8	Yes
BFI	BFI	BFI	Double	38	8	8	Yes
BFISD	BFISD	BFISD	Double	38	8	8	Yes
STATION_NM	STATION_NM	STATION_NM	String	0	0	60	Yes
STATE_CD	STATE_CD	STATE_CD	Double	38	8	8	Yes
STATE_ABBV	STATE_ABBV	STATE_ABBV	String	0	0	2	Yes
DRAIN_AREA	DRAIN_AREA	DRAIN_AREA	Double	38	8	8	Yes
CONTRIB_DR	CONTRIB_DR	CONTRIB_DR	Double	38	8	8	Yes
NWIS_URL	NWIS_URL	NWIS_URL	String	0	0	70	Yes
HUC8	HUC8	HUC8	Integer	10	0	4	Yes
HLR	HLR	HLR	Integer	10	0	4	Yes
SGRF1_ID	SGRF1_ID	SGRF1_ID	Integer	10	0	4	Yes
POLYGONID	POLYGONID	POLYGONID	Integer	10	0	4	Yes
SCALE	SCALE	SCALE	Double	38	8	8	Yes
ANGLE	ANGLE	ANGLE	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a54_ix1	Yes	Yes
R63_SDE_ROWID_	Yes	OBJECTID

ORR_GeodB.DBO.Utilities

Alias	Utilities	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 1600

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
FNODE_	FNODE_	FNODE_	Integer	10	0	4	Yes
TNODE_	TNODE_	TNODE_	Integer	10	0	4	Yes
LPOLY_	LPOLY_	LPOLY_	Integer	10	0	4	Yes
RPOLY_	RPOLY_	RPOLY_	Integer	10	0	4	Yes
LENGTH	LENGTH	LENGTH	Double	38	8	8	Yes
UTILITIES_	UTILITIES_	UTILITIES_	Integer	10	0	4	Yes
UTILITIES1	UTILITIES1	UTILITIES1	Integer	10	0	4	Yes
FC	FC	FC	Small Integer	5	0	2	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a19_ix1	Yes	Yes
R28_SDE_ROWID_	Yes	OBJECTID

ORR_GeodB.DBO.Vinyl_Chloride

Alias	Vinyl Chloride Conc. (contours)	Geometry: Point
Dataset Type	FeatureClass	Average Number of Points: 0

FeatureType Simple	Has M: No Has Z: No Grid Size: 77.172985706927761
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Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
STA_NAME	STA_NAME	STA_NAME	String	0	0	254	Yes
SPLANE_EAS	SPLANE_EAS	SPLANE_EAS	Double	21	6	8	Yes
SPLANE_NOR	SPLANE_NOR	SPLANE_NOR	Double	21	6	8	Yes
RESULTS_mg	RESULTS_mg	RESULTS_mg	Double	21	6	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Subtype Name	Default Value	Domain
Index Name a82_ix1 R91_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes

ORR_GeodB.DBO.VOC_GW

Alias GW VOC	Geometry: Polygon
Dataset Type FeatureClass	Average Number of Points: 0
FeatureType Simple	Has M: No Has Z: No Grid Size: -6

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.STArea()	Shape.STArea()	Shape.STArea()	Double	0	0	0	No
Shape.STLength()	Shape.STLength()	Shape.STLength()	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name R179_pk S139_idx	Ascending Yes Yes	Unique Yes Yes

ORR_GeodB.DBO.waterbody

Alias ORR Waterbody	Geometry: Polygon
Dataset Type FeatureClass	Average Number of Points: 0
FeatureType Simple	Has M: Yes Has Z: Yes Grid Size: 39000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ComID	ComID	ComID	Integer	10	0	4	Yes
FDate	FDate	FDate	Date	0	0	36	Yes
RESOLUTION	RESOLUTION	RESOLUTION	String	0	0	7	Yes
GNIS_ID	GNIS_ID	GNIS_ID	String	0	0	10	Yes
GNIS_Name	GNIS_Name	GNIS_Name	String	0	0	65	Yes
AreaSqKm	AreaSqKm	AreaSqKm	Double	38	8	8	Yes
Elevation	Elevation	Elevation	Double	38	8	8	Yes
ReachCode	ReachCode	ReachCode	String	0	0	14	Yes
FTYPE	FTYPE	FTYPE	String	0	0	24	Yes
FCode	FCode	FCode	Integer	10	0	4	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value		Domain
Index Name	Ascending	Unique	Fields
a68_ix1	Yes	Yes	Shape
R77_SDE_ROWID_	Yes	Yes	OBJECTID

ORR_GeodB.DBO.wbd1004abc_a_tn

Alias	Tennessee Watersheds	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 22000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ORR_GeodB.DBO.wbd1004abc_	ORR_GeodB.DBO.wbd1004abc_	ORR_GeodB.DBO.wbd1004abc_	Double	38	8	8	Yes
a_tn.AREA	a_tn.AREA	a_tn.AREA	Double	38	8	8	Yes
PERIMETER	PERIMETER	PERIMETER	Double	38	8	8	Yes
WBD1004ABC	WBD1004ABC	WBD1004ABC	Integer	10	0	4	Yes
WBD1004A_1	WBD1004A_1	WBD1004A_1	Integer	10	0	4	Yes
TNDRAFTCB_	TNDRAFTCB_	TNDRAFTCB_	Double	38	8	8	Yes
DRAFTHUA_	DRAFTHUA_	DRAFTHUA_	Double	38	8	8	Yes
DRAFTHUA_I	DRAFTHUA_I	DRAFTHUA_I	Double	38	8	8	Yes
HUC_8	HUC_8	HUC_8	String	0	0	8	Yes
HUC_10	HUC_10	HUC_10	String	0	0	10	Yes
ACRES	ACRES	ACRES	Double	38	8	8	Yes
HUC_12	HUC_12	HUC_12	String	0	0	12	Yes
STATES	STATES	STATES	String	0	0	12	Yes
NCONTRB_A	NCONTRB_A	NCONTRB_A	Double	38	8	8	Yes
HU_10_DS	HU_10_DS	HU_10_DS	String	0	0	10	Yes
HU_10_NAME	HU_10_NAME	HU_10_NAME	String	0	0	80	Yes
HU_10_MOD	HU_10_MOD	HU_10_MOD	String	0	0	20	Yes
HU_10_TYPE	HU_10_TYPE	HU_10_TYPE	String	0	0	1	Yes
HU_12_DS	HU_12_DS	HU_12_DS	String	0	0	12	Yes
HU_12_NAME	HU_12_NAME	HU_12_NAME	String	0	0	80	Yes
HU_12_MOD	HU_12_MOD	HU_12_MOD	String	0	0	20	Yes
HU_12_TYPE	HU_12_TYPE	HU_12_TYPE	String	0	0	1	Yes
DRAFTACRE	DRAFTACRE	DRAFTACRE	Double	38	8	8	Yes
A10DIGIT	A10DIGIT	A10DIGIT	String	0	0	2	Yes
A12DIGIT	A12DIGIT	A12DIGIT	String	0	0	2	Yes
LABEL	LABEL	LABEL	String	0	0	6	Yes
HU_8_NAME	HU_8_NAME	HU_8_NAME	String	0	0	80	Yes
HUC_6	HUC_6	HUC_6	String	0	0	6	Yes
HU_6_NAME	HU_6_NAME	HU_6_NAME	String	0	0	80	Yes
HUC_4	HUC_4	HUC_4	String	0	0	4	Yes
HU_4_NAME	HU_4_NAME	HU_4_NAME	String	0	0	80	Yes
HUC_2	HUC_2	HUC_2	String	0	0	2	Yes
HU_2_NAME	HU_2_NAME	HU_2_NAME	String	0	0	80	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value		Domain
Index Name	Ascending	Unique	Fields
a7_ix1	Yes	Yes	Shape
R16_SDE_ROWID_	Yes	Yes	OBJECTID

ORR_GeodB.DBO.WOC_Catchments

Alias	WOC Catchments	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 1700

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID_1	OBJECTID_1	OBJECTID_1	OID	10	0	4	No
OBJECTID	OBJECTID	OBJECTID	Integer	10	0	4	Yes
GRIDCODE	GRIDCODE	GRIDCODE	Double	38	8	8	Yes
Shape_Leng	Shape_Leng	Shape_Leng	Double	38	8	8	Yes
GridID	GridID	GridID	Integer	10	0	4	Yes
HydroID	HydroID	HydroID	Integer	10	0	4	Yes
DrainID	DrainID	DrainID	Integer	10	0	4	Yes
NextDownID	NextDownID	NextDownID	Integer	10	0	4	Yes
JunctionID	JunctionID	JunctionID	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a12_ix1	Yes	Yes
R21_SDE_ROWID_1	Yes	Yes

ORR_GeodB.DBO.WOC_LC

Alias	WOC Land Cover	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 1700

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
VALUE_	VALUE_	VALUE_	Integer	10	0	4	Yes
COUNT_	COUNT_	COUNT_	Integer	10	0	4	Yes
CLASS_NAME	CLASS_NAME	CLASS_NAME	String	0	0	30	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name	Ascending	Unique
a48_ix1	Yes	Yes
R57_SDE_ROWID_1	Yes	Yes

ORR_GeodB.DBO.WOC_WS

Alias	WOC Watershed	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M:No Has Z:No Grid Size: 4800

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Id	Id	Id	Integer	10	0	4	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes

Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a11_ix1	Yes	Yes	Shape
R20_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.xns_WOC

Alias	WOC River Cross Sections	Geometry: Polyline
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: Yes Has Z: Yes Grid Size: 28

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
DHI_ID	DHI_ID	DHI_ID	Integer	10	0	4	Yes
Branch	Branch	Branch	String	0	0	80	Yes
Chainage	Chainage	Chainage	Double	38	8	8	Yes
Status	Status	Status	Small Integer	5	0	2	Yes
TopoID	TopoID	TopoID	String	0	0	80	Yes
CrossSectionName	CrossSectionName	CrossSectionName	String	0	0	80	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a32_ix1	Yes	Yes	Shape
R41_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.Y12_LandUse

Alias	Y12 Land Use	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 760

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
ID	ID	ID	Double	10	0	8	Yes
GRIDCODE	GRIDCODE	GRIDCODE	Double	10	0	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain	
Index Name	Ascending	Unique	Fields
a49_ix1	Yes	Yes	Shape
R58_SDE_ROWID_UK	Yes	Yes	OBJECTID

ORR_GeodB.DBO.Y12_model_domain_polygon

Alias	Y12 Model Domain	Geometry: Polygon
Dataset Type	FeatureClass	Average Number of Points: 0
FeatureType	Simple	Has M: No Has Z: No Grid Size: 5000

Field Name	Alias Name	Model Name	Type	Precn.	Scale	Length	Null
OBJECTID	OBJECTID	OBJECTID	OID	10	0	4	No
Uniq_ID	Uniq_ID	Uniq_ID	Integer	10	0	4	Yes
AREA_	AREA_	AREA_	Double	24	8	8	Yes
NAME	NAME	NAME	String	0	0	25	Yes
Hg	Hg	Hg	Double	38	8	8	Yes
Shape	Shape	Shape	Geometry	0	0	4	Yes
Shape.area	Shape.area	Shape.area	Double	0	0	0	No
Shape.len	Shape.len	Shape.len	Double	0	0	0	No

Subtype Name	Default Value	Domain
Index Name a6_ix1 R15_SDE_ROWID_UK	Ascending Yes Yes	Unique Yes Yes

Relationships

Name	Origin	Destination	Attributed	CompositeRules
ORR_GeodB.DBO.TSTypeHasTimeSeries	ORR_GeodB.DBO.TSType	ORR_GeodB.DBO.Monthly_RF_TSNo	No	No

ORR_GeodB.DBO.TSTypeHasTimeSeries

Composite	No
Cardinality	One To Many
Notification	None
Attributed	No
ObjectClass	Origin ORR_GeodB.DBO.TSType
Key	TSTypeID (<i>Origin Primary Key</i>)
Labels	TSType
	Destination ORR_GeodB.DBO.Monthly_RF_TS TSTypeID (<i>Origin Foreign Key</i>) TimeSeries

Spatial References

Dimension	Minimum	Precision
ORR_GeodB.DBO.Admin_Features		

X	-37039800	10000
Y	-28631200	
M	-100000	10000
Z	-100000	10000

Coordinate System Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.3333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]

ORR_Geodb.DBO.CAD

X	-450359962737.0495	10000
Y	-450359962737.0495	
M	-100000	10000
Z	-100000	10000

Coordinate System Description

ORR_Geodb.DBO.Contaminant_Conc_Features

X	-37039800	10000
Y	-28631200	
M	-100000	10000
Z	-100000	10000

Coordinate System Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.3333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]

ORR_Geodb.DBO.DHI_CrossSections

X	745536.42832031252	656384191943.93274
Y	177976.75194549561	
M	-100000	10000
Z	-100000	10000

Coordinate System Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.3333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]

ORR_Geodb.DBO.DHI_Nodes

X	745174.48912200925	639195510948.57275
Y	177977.48091430665	
M	-	-
Z	-100000	10000

Coordinate System Description

ORR_Geodb.DBO.DHI_Reaches

X	745174.48912200925	639195510948.57275
Y	177977.48091430665	
M	-100000	10000
Z	-100000	10000

Coordinate System Description

ORR_Geodb.DBO.GW_Features

X	-37039800	10000
Y	-28631200	

M	-100000	10000
Z	-100000	10000

Coordinate System Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]

ORR_GeodB.DBO.Hydro_Features

X	-37039800	10000
Y	-28631200	
M	-100000	10000
Z	-100000	10000

Coordinate System Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]

ORR_GeodB.DBO.LandCover_LandUse_Features

X	-37039800	10000
Y	-28631200	
M	-100000	10000
Z	-100000	10000

Coordinate System Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]

ORR_GeodB.DBO.Monitoring_Stations

X	-37039800	10000
Y	-28631200	
M	-100000	10000
Z	-100000	10000

Coordinate System Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]

ORR_GeodB.DBO.Network_Features

X	-37039800	10000
Y	-28631200	
M	-100000	10000
Z	-100000	10000

Coordinate System Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]

ORR_GeodB.DBO.Physical_Features

X	-37039800	10000
Y	-28631200	
M	-100000	10000

Z	-100000	10000	
Coordinate		System	Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]			
ORR_GeodB.DBO.Soils			
X	-37039800	10000	
Y	-28631200		
M	0	1	
Z	0	1	
Coordinate		System	Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]			
ORR_GeodB.DBO.Topo_Features			
X	-37039800	10000	
Y	-28631200		
M	-100000	10000	
Z	-100000	10000	
Coordinate		System	Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]			
ORR_GeodB.DBO.Transport_Features			
X	-37039800	10000	
Y	-28631200		
M	-100000	10000	
Z	-100000	10000	
Coordinate		System	Description
PROJCS["NAD_1983_StatePlane_Tennessee_FIPS_4100",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983"],SPHEROID["GRS_1980",6378137.0,298.257222101],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",600000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-86.0],PARAMETER["Standard_Parallel_1",35.25],PARAMETER["Standard_Parallel_2",36.41666666666666],PARAMETER["Latitude_Of_Origin",34.333333333334],UNIT["Meter",1.0],AUTHORITY["EPSG",32136]]			

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Appendix C: Representative Python Scripts for Statistical Analysis of Hydrological Model Data

Main.py

Imports the various Python libraries (in-built and customized) containing the scripts used for statistical analysis. Also sets the path to the data.

```

import Formulas
import Parser
import datetime

if __name__ == '__main__':
    print "opening file."
    """ get data """
    data = Parser.parseXSLX("Statistical_Test.xlsx")

    print "data parsed."
    """ assign data """
    t = data[0]
    hto = data[1]
    htm = data[2]
    ho = data[3]
    hm = data[4]

    print "data assigned."
    """ do calculations """
    ME = Formulas.ME(t, ho, hm)
    MAE = Formulas.MAE(t, ho, hm)
    RMSE = Formulas.RMSE(t, ho, hm)
    STD = Formulas.STD(t, ho, hm)
    NS = Formulas.NS(t, hto, htm, ho, hm)
    CoVar = Formulas.CoVar(t, hto, htm, ho, hm)
    COR = Formulas.Cor(t, hto, htm, ho, hm)
    PEV = Formulas.PEV(t, hto, htm, ho, hm)

    print "data analysed."
    """ store output """
    f = open('output.txt', 'w')
    output = 'File Timestamp: ' + datetime.datetime.now().strftime("%Y-%m-%d %H:%M:%S") + "\n"
    f.write(output)
    f.close()

```

```

f.write(str(output))
output = "ME: " + str(ME) +"\n"
f.write(str(output))
output = "MAE: " + str(MAE) +"\\n"
f.write(str(output))
output = "RMSE: " + str(RMSE) +"\\n"
f.write(str(output))
output = "STD: " + str(STD) +"\\n"
f.write(str(output))
output = "NS: " + str(NS) +"\\n"
f.write(str(output))
output = "COVAR: " + str(CoVar) +"\\n"
f.write(str(output))
output = "COR: " + str(COR) +"\\n"
f.write(str(output))
output = "PEV: " + str(PEV) +"\\n"
f.write(str(output))

print "output stored in output.txt"

pass

```

Formulas.py

A customized library of Python scripts developed to perform statistical analyses on model-derived data.

```

import math
import operator

def ME(t, ho, hm):
    return math.fsum(map(operator.sub, ho, hm)) / t

def MAE(t, ho, hm):
    return math.fsum(map(lambda x, y: abs(x - y), ho, hm)) / t

def RMSE(t, ho, hm):
    return math.fsum(map(lambda x, y: (x - y)**2, ho, hm)) / t

def STD(t, ho, hm):
    return math.sqrt(math.fsum(map(lambda x, y: (x - y)**2, ho, hm)) / t)

def CoVar(t, hto, htm, ho, hm):

```

```

return math.fsum(map(operator.mul, map((lambda x: hto - x), ho), map((lambda x: htm - x), hm))) / t

def Cor(t, hto, htm, ho, hm):
    HtHo = map((lambda x: (hto - x)**2), ho)
    HtHm = map((lambda x: (htm - x)**2), hm)
    return math.fsum(map((lambda x, y: x * y), HtHo, HtHm)) / math.sqrt(math.fsum(HtHo) * math.fsum(HtHm))

def PEV(t, hto, htm, ho, hm):
    return 1 - (((hto - htm) * ((htm - hto)/t))**2) / math.fsum(map((lambda x: (hto - x)**2), ho)))

def NS(t, hto, htm, ho, hm):
    return 1 - (((htm - hto)**2) / math.fsum(map((lambda x: (hto - x)**2), ho)))

```

Parser.py

Parses the data file for specific parameters, extracts the data and returns this to Main.py (tuple data structure).

```

import xlrd
import numpy as np

def parseXSLX(fileName):
    # opens the workbook file
    workbook = xlrd.open_workbook(fileName)
    #grabs the first sheet in the workbook
    worksheet = workbook.sheet_by_name("Sheet1")
    #retrieve the number of columns in the excel worksheet
    num_cells = worksheet.ncols - 1
    # this variable is used to check the first row of the excel sheet to see if any column of the
    first row is a desired column
    the_row = 0
    #these variales will hold the columns numbers of the data sets in question
    b_column=-1
    c_column=-1
    # This while loop iterates through all the columns in the first row to find the desired Ho
    and Hm columns
    curr_cell_in_row = -1
    while curr_cell_in_row < num_cells:
        curr_cell_in_row += 1
        cell_value = worksheet.cell_value(the_row, curr_cell_in_row)

```

```
if b_column>=0 and c_column>=0:  
    break  
elif cell_value == "STA17_Q-OBS":  
    b_column = curr_cell_in_row  
elif cell_value == "STA17_Q-M11":  
    c_column = curr_cell_in_row  
  
num_rows = worksheet.nrows - 1  
blist= [] #h0 list  
clist = [] #hM list  
the_row=1  
#this loop loops through the desired columns h0 and hm and eliminates empty spaces  
for the_row in range(1,num_rows):  
    curr_b_type = worksheet.cell_type(the_row,b_column)  
    curr_c_type = worksheet.cell_type(the_row,c_column)  
    if int(curr_b_type) == 0 or int(curr_c_type) == 0:  
        continue  
    else:  
        curr_b_value = worksheet.cell_value(the_row,b_column)  
        curr_c_value = worksheet.cell_value(the_row,c_column)  
        blist.append(curr_b_value)  
        clist.append(curr_c_value)  
  
# num of items in in each list, avg of each list, the two lists  
return (len(blist),np.mean(blist),np.mean(clist),blist,clist)
```
