Utilities Data Content Standard
Appendix B: Feature Types
(Normative)

Facilities Working Group
Federal Geographic Data Committee

May 1999

Utilities (Feature Types by Class)

FEATURE CLASS: **Compressed Air System**

FEATURE TYPE: **Compressed air drain sep point** OBJECT TYPE: **Point**

DEFINITION: **Condensation drain in a compressed air line.**

FEATURE ATTRIBUTES FOR: Compressed air drain sep point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Compressed Air System**

FEATURE TYPE: **Compressed air fitting point** OBJECT TYPE: **Point**

DEFINITION: **A fitting is an item used to connect, cap, plug or otherwise alter a pipe.**

FEATURE ATTRIBUTES FOR: Compressed air fitting point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Compressed Air System Fitting Code

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Compressed Air System**

FEATURE TYPE: **Compressed air flow direction arrow** OBJECT TYPE: **Arrow**

DEFINITION: **An arrow indicating the direction of movement of compressed air.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Compressed air flow direction arrow

DATABASE INTEGRATION:

PHYSICAL PROPERTIES:

PERFORMANCE:

OPERATION/MAINTENANCE:

FEATURE CLASS: **Compressed Air System**

FEATURE TYPE: **Compressed air pipe line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry compressed air from location to location**

FEATURE ATTRIBUTES FOR: Compressed air pipe line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Compressed Air System**

FEATURE TYPE: **Compressed air tank point** OBJECT TYPE: **Point**

DEFINITION: **A chamber for holding compressed air prior to its use.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Compressed air tank point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Compressed Air System**

FEATURE TYPE: **Compressed air valve pit point** OBJECT TYPE: **Point**

DEFINITION: **A below grade chamber, too small to enter, containing one or more valves.**

FEATURE ATTRIBUTES FOR: Compressed air valve pit point

DATABASE INTEGRATION:

Facility Identifier	Metadata Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Compressed Air System**

FEATURE TYPE: **Compressed air valve point** OBJECT TYPE: **Point**

DEFINITION: **A device to control flow through a compressed air line.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Compressed air valve point

DATABASE INTEGRATION:

Facility Identifier | Graphic Feature Link | Metadata Identifier
Unique Feature Identifier | X Coordinate | Y Coordinate
Z Coordinate

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Control & Monitoring System**

FEATURE TYPE: **Energy control monitoring cable line** OBJECT TYPE: **String/Chain**

DEFINITION: **Data transmission media, typically fiber optics or shielded twisted-pair.**

FEATURE ATTRIBUTES FOR: Energy control monitoring cable line

DATABASE INTEGRATION:

Energy Control Monitoring Ductbank Identifier | Facility Identifier | From X Coordinate
From Y Coordinate | From Z Coordinate | Graphic Feature Link
Metadata Identifier | To X Coordinate | To Y Coordinate
To Z Coordinate | Unique Feature Identifier | X Coordinate
Y Coordinate | Z Coordinate

PHYSICAL PROPERTIES:

Number of Twisted Pairs Quantity | Number of Links Quantity | Loose Buffered Indicator Code
Length Unit Measure Code | Installation Type Code | Cable Type Code
Cable Sheath Type Code | Cable Material Code | Cable Length Dimension
Cable Dimension Code

PERFORMANCE:

Decibel Loss Quantity | Disposition Code | Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Control & Monitoring System**

FEATURE TYPE: **Energy control monitoring device point** OBJECT TYPE: **Point**

DEFINITION: **Devices used in an energy monitoring/control system to collect, process or transmit data signals.**

FEATURE ATTRIBUTES FOR: Energy control monitoring device point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Serial Number Code	Number of Twisted Pairs Quantity	Model Number Code
Pump Station Type Code	Spare Digital Outputs Quantity	Digital Output Number Amount
Digital Input Number Amount	Monitoring Device Type Discriminator	Manufacture Date
Spare Analog Outputs Amount	Number of Analog Outputs Amount	Spare Analog Inputs Amount
Number of Analog Inputs Amount		

PERFORMANCE:

Disposition Code	Impedance Measure Amount	Impedance Unit Measure Code
Narrative Text		

OPERATION/MAINTENANCE:

Readout Display Type Code	Spare Digital Inputs Quantity	User Flag Text

FEATURE CLASS: **Control & Monitoring System**

FEATURE TYPE: **Energy control monitoring ductbank line** OBJECT TYPE: **String/Chain**

DEFINITION: **A structure containing multiple conduits used to protect underground cables.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Energy control monitoring ductbank line

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	From X Coordinate
From Y Coordinate	From Z Coordinate	Graphic Feature Link
Metadata Identifier	To X Coordinate	To Y Coordinate
To Z Coordinate	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Ductbank Voltage Code	Number of Spares Quantity	Ducts Quantity
Length Unit Measure Code	Material Code	Ductbank Size Code
Length Dimension		

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Control & Monitoring System**

FEATURE TYPE: **Energy control monitoring junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault located below grade with above grade access where cables intersect, connect, or pass through.**

FEATURE ATTRIBUTES FOR: Energy control monitoring junction point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Energy Control Monitoring Junction Code	Serial Number Code	Model Number Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Control & Monitoring System**

FEATURE TYPE: **Energy control monitoring marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc. installed either directly above or immediately adjacent to underground lines, bends, fittings, etc.**

FEATURE ATTRIBUTES FOR: Energy control monitoring marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

General Markers Type Code	Soil Consistency Code	Sign Width Dimension
Sign Text	Sign Material Composition Code	Sign Height Dimension
Pole Material Code	Pole Height Dimension	Pole Depth Dimension
Model Number Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Rock Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Electrical Exterior Lighting**

FEATURE TYPE: **Exterior lighting point** OBJECT TYPE: **Point**

DEFINITION: **Locations of point sources of general external lighting.**

FEATURE ATTRIBUTES FOR: Exterior lighting point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Electrical External Lighting Type Code

PERFORMANCE:

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical bus line** OBJECT TYPE: **String/Chain**

DEFINITION: **A rigid metallic conductor (copper or aluminum), typically in the form of a flat bar, angle stock, or square tubing.**

FEATURE ATTRIBUTES FOR: Electrical bus line

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	From X Coordinate
From Y Coordinate	From Z Coordinate	Graphic Feature Link
Metadata Identifier	To X Coordinate	To Y Coordinate
To Z Coordinate	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Group Voltage Code	Group Neutral Conductor Size Code	Group Number of Neutral Conductors Quantity
Group Conductor Quantity	Frame Type Configuration Code	Group Material Composition Code
Basic Insulation Level Rating Code		

PERFORMANCE:

Cable Use Code	Disposition Code	Group Reactance Amount
Group Resistance Amount	Narrative Text	

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical cable line** OBJECT TYPE: **String/Chain**

DEFINITION: **A group of conductors used to carry electrical energy from point to point.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Electrical cable line

DATABASE INTEGRATION:

Electrical Ductbank Identifier	Electrical Substation Identifier	Facility Identifier
Feature Name	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

River Mile Reference Dimension	Cable Type Discriminator	Cable Group Voltage Code
Group Number of Phases Quantity	Group Number of Neutral Conductors Quantity	Group Conductor Quantity
Group Neutral Conductor Size Code	Length Unit Measure Code	Group Insulation Material Code
Cable Installation Type Discriminator	Group Conductor Size Code	Cable Mounting Configuration Type Code
Cable Material Code	Cable Length Dimension	

PERFORMANCE:

Disposition Code	Narrative Text	Phase Letter Code

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical capacitor point** OBJECT TYPE: **Point**

DEFINITION: **An electrical device placed in a circuit to correct power factor by adding reactive power to the circuit.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Electrical capacitor point

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Switch Phase Code	Serial Number Code	Model Number Code
Pump Station Type Code	Electrical Capacitor Unit Measure Code	Reactive Power Rating Code
Control Type Code		

PERFORMANCE:

Capacitor Voltage Code	Disposition Code	Narrative Text
Number of Phases Quantity	Phase Letter Code	

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical ductbank line** OBJECT TYPE: **String/Chain**

DEFINITION: **A tubular structure that provides protection for underground cables contained in conduit.**

FEATURE ATTRIBUTES FOR: Electrical ductbank line

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	Feature Name
From X Coordinate	From Y Coordinate	From Z Coordinate
Graphic Feature Link	Metadata Identifier	To X Coordinate
To Y Coordinate	To Z Coordinate	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

River Mile Reference Dimension	Ductbank Voltage Code	Number of Spares Quantity
Ducts Quantity	Length Unit Measure Code	Material Code
Ductbank Size Code	Length Dimension	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical generator point** OBJECT TYPE: **Point**

DEFINITION: **A machine which converts mechanical energy into electrical energy.**

FEATURE ATTRIBUTES FOR: Electrical generator point

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	Graphic Feature Link
Metadata Identifier	Permit Number Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Generator Voltage Code	Sound Dampening Insulation Code	Serial Number Code
Power Factor Amount	Model Number Code	Electrical Generator Type Code
Engine Horsepower Code	Engine Serial Number Code	Engine Model Name
Manufacturer Name	Cooling Type Code	

PERFORMANCE:

Capacity Unit Measure Code	Disposition Code	Fuel Type Code
Generator Complex Power Rate	Generator Hertz Rating Code	Generator Number of Phases Quantity
Generator Real Power Rate	Narrative Text	Oil Capacity Volume
Phase Letter Code		

OPERATION/MAINTENANCE:

Automatic Transfer Switch Code	User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical ground point** OBJECT TYPE: **Point**

DEFINITION: **The location where the electrical configuration is grounded.**

FEATURE ATTRIBUTES FOR: Electrical ground point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault (usually concrete, brick, or metal) typically located below grade with above grade access in which cables intersect, connect, or pass through.**

FEATURE ATTRIBUTES FOR: Electrical junction point

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Electrical Junction Type Code	Rim Dimension	Cable Quantity
Manhole Diameter Dimension	Material Composition Code	Manhole Floor Elevation Dimension
Elevation Unit Measure Code	Drain Type Code	Diameter Unit Measure Code

PERFORMANCE:

Disposition Code	Electrical Junction Use Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc. installed either directly above or immediately adjacent to underground lines, bends, fittings, etc., identifying the location of the electrical equipment.**

FEATURE ATTRIBUTES FOR: Electrical marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical meter point** OBJECT TYPE: **Point**

DEFINITION: **A device installed in a line for measuring the electrical power supplied to a facility or through a section of line.**

FEATURE ATTRIBUTES FOR: Electrical meter point

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Meter Voltage Code	Serial Number Code	Constant Amount
Model Number Code	Electric Meter Type Code	Meter Hertz Rating Code
Complex Power Capacity Rate	Amp Rate	

PERFORMANCE:

Disposition Code	Electrical Meter Use Code	Meter Number of Phases Quantity
Meter Real Power Rate	Narrative Text	Phase Letter Code

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical motor point** OBJECT TYPE: **Point**

DEFINITION: **A machine that converts electrical energy into mechanical energy.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Electrical motor point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Permit Number Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Winding Configuration Type Code	Motor Voltage Code	Serial Number Code
Power Factor Amount	Electrical Motor Type Code	Model Number Code
Insulation Classification Code	Enclosure Type Code	

PERFORMANCE:

Disposition Code	Horsepower Rate	Motor Hertz Rating Code
Motor Number of Phases Quantity	Narrative Text	Phase Letter Code

OPERATION/MAINTENANCE:

Startup Configuration Type Code	User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical pedestal point** OBJECT TYPE: **Point**

DEFINITION: **An above ground enclosure which provides access to underground cables.**

FEATURE ATTRIBUTES FOR: Electrical pedestal point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Serial Number Code	Model Number Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical regulator point** OBJECT TYPE: **Point**

DEFINITION: **An electrical device that maintains its output voltage at a certain level even though its input voltage varies in a certain range over time.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Electrical regulator point

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Weight Unit Measure Code	Serial Number Code	Secondary Voltage Code
Weight	Regulatory Type Code	Number of Taps Quantity
Model Number Code	Pump Station Type Code	Fuse Type Code
Fuse Rate Quantity	Manufacture Date	Cooling Type Code

PERFORMANCE:

Disposition Code	Electrical Regulator Use Code	Narrative Text
Number of Phases Quantity	Oil Capacity Volume	Percentage Tapped Amount
Phase Letter Code	Primary Voltage Code	Rate Capacity Unit Measure Code
Regulator Complex Power Rate		

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical riser point** OBJECT TYPE: **Point**

DEFINITION: **The location where underground cable transitions to overhead.**

FEATURE ATTRIBUTES FOR: Electrical riser point

DATABASE INTEGRATION:

Facility Identifier	General Pole & Tower Location Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Riser Material Type Code

PERFORMANCE:

Narrative Text	Narrative Text

OPERATION/MAINTENANCE:

Installation Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical splice point** OBJECT TYPE: **Point**

DEFINITION: **The connection of two separate cables at their ends or the tapping of a conductor along the path of another conductor.**

FEATURE ATTRIBUTES FOR: Electrical splice point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical substation site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A facility in an electrical system where the voltage is reduced from transmission levels to distribution levels.**

FEATURE ATTRIBUTES FOR: Electrical substation site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Station Area	Electrical Substation Type Code	Number of Transformers Quantity
Number of Spares Quantity	Circuit Number Amount	

PERFORMANCE:

Disposition Code	Maximum Continuous Power Rate	Narrative Text
Normal Continuous Power Capacity Rate	Rate Capacity Unit Measure Code	Substation Voltage Input Code
Substation Voltage Output Code		

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical switch point** OBJECT TYPE: **Point**

DEFINITION: **A device which closes and opens (connects and disconnects) an electrical circuit.**

FEATURE ATTRIBUTES FOR: Electrical switch point

DATABASE INTEGRATION:

Electrical Substation Identifier	Electrical Switching Cubicle Identifier	Facility Identifier
Graphic Feature Link	Metadata Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Weight Unit Measure Code	Switch Voltage Code	Weight
Electrical Switch Type Code	Electrical Switch Rate	Switch Dimension
Serial Number Code	Number of Switches Quantity	Model Number Code
Pump Installation Type Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Phase Letter Code
Switch Number of Phases Quantity		

OPERATION/MAINTENANCE:

Normal Positioning Code	User Flag Text

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical transformer bank point** OBJECT TYPE: **Point**

DEFINITION: **A location containing one or more transformers.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Electrical transformer bank point

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Feeder Number Text	Transformers in Second Group Quantity	Phase Number for Group Two Value Code
Number of Transformers in First Group Quantity	Secondary Voltage Code	Number of Transformers Quantity
Mounting Type Code		

PERFORMANCE:

Disposition Code	First Transformer Capacity Volume	Narrative Text
Number 1 Capacity Value Code	Number 2 Capacity Value Code	Phase Number Value Code
Primary Voltage Code	Second Transformer Capacity Volume	Third Transformer Capacity Volume
Total KVA Rate		

OPERATION/MAINTENANCE:

Installation Date	Item Condition Code	Last Inspection Date
User Flag Text		

FEATURE CLASS: **Electrical System**

FEATURE TYPE: **Electrical transformer vault point** OBJECT TYPE: **Point**

DEFINITION: **An enclosure housing one or more transformers.**

FEATURE ATTRIBUTES FOR: Electrical transformer vault point

DATABASE INTEGRATION:

Electrical Substation Identifier	Facility Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Serial Number Code	Number of Transformers Quantity	Model Number Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel air eliminator point** OBJECT TYPE: **Point**

DEFINITION: **A device or structure placed in the fuel distribution system to separate air from petroleum products.**

FEATURE ATTRIBUTES FOR: Fuel air eliminator point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel anode point** OBJECT TYPE: **Point**

DEFINITION: **A material used for utility distribution systems that is electrically connected to a less electrolytically active material so that it will oxidize in the place of the less active material.**

FEATURE ATTRIBUTES FOR: Fuel anode point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Weight Unit Measure Code	Material Composition Code	Anode Weight

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel anode test station point** OBJECT TYPE: **Point**

DEFINITION: **A central location where anodes are tested for performance.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel anode test station point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Wire Type Code	Wire Size Code	Fuel Anode Test Station Type Code
Number of Terminals Quantity	Insulation Type Code	

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel filter strainer point** OBJECT TYPE: **Point**

DEFINITION: **A device through which fuel is passed to remove impurities to the fuel. Usually placed in fuel lines near fill points.**

FEATURE ATTRIBUTES FOR: Fuel filter strainer point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel fitting point** OBJECT TYPE: **Point**

DEFINITION: **A fitting is an item used to connect, cap, plug or otherwise alter a pipe.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel fitting point

DATABASE INTEGRATION:

Facility Identifier	Fuel Line Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Fuel Fitting Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code	Material Composition Code	Width Dimension
Length Dimension	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel flow direction arrow** OBJECT TYPE: **Arrow**

DEFINITION: **A flow direction arrow indicates the direction of flow through a line, valve, or component.**

FEATURE ATTRIBUTES FOR: Fuel flow direction arrow

DATABASE INTEGRATION:

PHYSICAL PROPERTIES:

PERFORMANCE:

OPERATION/MAINTENANCE:

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel hydrant point** OBJECT TYPE: **Point**

DEFINITION: **Location where fuel is control discharged to users.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel hydrant point

DATABASE INTEGRATION:

Facility Identifier	Fuel Line Identifier	Fuel Valve Identifier
Graphic Feature Link	Metadata Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Valve Style Code	Outlet 3 Diameter Dimension	Outlet 2 Diameter Dimension
Outlet 1 Diameter Dimension	Model Number Code	Hydrant Type Code
Hydrant Dimension	Elevation Unit Measure Code	Diameter Unit Measure Code

PERFORMANCE:

Disposition Code	Measure Pressure Rate	Narrative Text
Pressure Unit Measure Code	Static Pressure Head Rate	

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault (usually concrete, brick, or cast iron) located below grade with above grade access where pipes intersect. The manhole also houses associated fittings, valves, meters, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel junction point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Fuel Junction Type Code	Rim Dimension	Number of Valves Quantity
Manhole Number of Pipes Quantity	Model Number Code	Width Dimension
Length Dimension	Manhole Diameter Dimension	Material Composition Code
Invert Elevation Dimension	Elevation Unit Measure Code	Drain Type Code
Dimension Unit Measure Code	Manhole Air Relief Valve Code	

PERFORMANCE:

Disposition Code	Fuel Junction Use Code	Junction Status Code
Narrative Text		

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry a substance from location to location (main line, service line, vent line, etc).**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Fuel Pump Booster Station Identifier	Fuel System Source Identifier
Fuel Tank Identifier	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Line Location Type Code	Fuel Line Type Code	Slope Measure Unit Code
Bottom Slope Percent	Pipe Diameter Measure Code	Length Dimension
Model Number Code	Material Composition Code	Invert Elevation Node 2 Dimension
Invert Elevation Node 1 Dimension	Elevation Unit Measure Code	Dimension Unit Measure Code
Pipe Cathodic Protection Code		

PERFORMANCE:

Disposition Code	Fuel Line Use Code	Fuel Type Code
Maximum Pressure Rate	Narrative Text	Normal Pressure Rate
Pressure Unit Measure Code		

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc. installed either directly above or immediately adjacent to underground lines, bends, fittings, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

General Markers Type Code	Soil Consistency Code	Sign Width Dimension
Sign Text	Sign Material Composition Code	Sign Height Dimension
Pole Material Code	Pole Height Dimension	Pole Depth Dimension
Model Number Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Rock Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel meter point** OBJECT TYPE: **Point**

DEFINITION: **A device installed in a line for measuring the quantity and or rate of fuel to a facility or through a section of line.**

FEATURE ATTRIBUTES FOR: Fuel meter point

DATABASE INTEGRATION:

Facility Identifier	Fuel Junction Identifier	Fuel Line Identifier
Graphic Feature Link	Metadata Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Fuel Meter Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code	Meter Dimension	Pump Station Type Code
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	Customer Name	Service Code
User Flag Text		

Utilities (Feature Types by Class)

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel oil water separator point** OBJECT TYPE: **Point**

DEFINITION: **A filtering device placed in the fuel stream specifically to remove oil and water from the fuel.**

FEATURE ATTRIBUTES FOR: Fuel oil water separator point

DATABASE INTEGRATION:

Facility Identifier	Feature Name	Fuel Pump Booster Station Identifier
Graphic Feature Link	Metadata Identifier	Permit Number Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Fuel Oil & Water Separator Type Code	Oil & Water Separator Code	Grit Chamber Type Code

PERFORMANCE:

Contents Descriptive Text	Disposal Description Text	Disposition Code
Flow Capacity Volume	Flow Unit Measure Code	Narrative Text
Oil Capacity Volume	Optimum Operating Temperature	Process Type Name
Rate Capacity Unit Measure Code	Separator Volume	Temperature Unit Measure Code
Volume Unit Measure Code		

OPERATION/MAINTENANCE:

Acquired Date	Permit Expiration Date	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel pump booster station point** OBJECT TYPE: **Point**

DEFINITION: **A building in which one or more pumps operate to supply material flowing at adequate pressure to or from a distribution system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel pump booster station point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Station Width Dimension	Fuel Pump Booster Station Type Code	Station Length Dimension
Centerline Dimension	Nodal Elevation Dimension	Number of Pumps Quantity
Elevation Unit Measure Code	Dimension Unit Measure Code	Booster Design Discriminator

PERFORMANCE:

Disposition Code	Fuel Source Code	Narrative Text
Output Capacity Volume	Rate Capacity Unit Measure Code	Structure Condition Code

OPERATION/MAINTENANCE:

Acquired Date	Capacity Alarm Level Volume	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel pump point** OBJECT TYPE: **Point**

DEFINITION: **A mechanical device that draws material into itself through an entrance port and forces the material out through an exhaust port.**

FEATURE ATTRIBUTES FOR: Fuel pump point

DATABASE INTEGRATION:

Facility Identifier	Fuel Pump Booster Station Identifier	Graphic Feature Link
Metadata Identifier	Pipe Inlet Identifier	Pipe Outflow Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Pump Type Code	Serial Number Code	Centerline Dimension
Model Number Code	Elevation Unit Measure Code	Cooling Method Code

PERFORMANCE:

Disposition Code	Flow Unit Measure Code	Fuel Pump Use Code
Horsepower Rate	Measured Outflow Volume	Narrative Text
Pump Capacity Rate		

OPERATION/MAINTENANCE:

Acquired Date	Priming Method Code	Priming Requirement Indicator Code
User Flag Text		

Utilities (Feature Types by Class)

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel rectifier point** OBJECT TYPE: **Point**

DEFINITION: **A device that changes alternating current to direct current for an impressed current cathodic protection system on an element of the distribution system.**

FEATURE ATTRIBUTES FOR: Fuel rectifier point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Internal Meter Code	Enclosure Type Code	Cooling Method Code

PERFORMANCE:

Current Output Amount	Current Unit Measure Code	Input Voltage Code
Narrative Text	Number of Phases Quantity	Phase Letter Code
Voltage Output Code		

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel regulator reducer point** OBJECT TYPE: **Point**

DEFINITION: **A pressure regulator automatically reduces the pressure on the downstream side of the valve to a preset magnitude.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel regulator reducer point

DATABASE INTEGRATION:

Facility Identifier	Fuel Junction Identifier	Fuel Pump Booster Station Identifier
Graphic Feature Link	Metadata Identifier	Pipe Inlet Identifier
Pipe Outflow Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Fuel Regulator Reducer Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code		

PERFORMANCE:

Disposition Code	Inlet Pressure Rate	Maximum Outlet Design Pressure Rate
Narrative Text	Pressure Unit Measure Code	Required Maximum Outlet Pressure Rate

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel source point** OBJECT TYPE: **Point**

DEFINITION: **The point from which the utility is supplied a product for processing and distribution.**

FEATURE ATTRIBUTES FOR: Fuel source point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

PERFORMANCE:

Disposition Code	Fuel System Source Type Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel tank site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **An above or below grade receptacle or chamber for holding components on a temporary basis prior to transfer or use.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Fuel tank site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Permit Number Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Rim Dimension	Area Size Unit Measure Code	Dimension Unit Measure Code
Elevation Unit Measure Code	Head Units Unit Measure Code	Invert Elevation Dimension
Interior Tank Area	Model Number Code	Perimeter Unit Measure Code
Serial Number Code	Tank Diameter Dimension	Length Dimension
Tank Type Code	Tank Width Dimension	Perimeter Dimension
Material Composition Code		

PERFORMANCE:

Capacity Volume	Disposition Code	Fuel Tank Use Code
Fuel Type Code	Narrative Text	Normal Operating Head Dimension
Normal Pressure Rate	Overflow Dimension	Pressure Unit Measure Code
Rate Capacity Unit Measure Code		

OPERATION/MAINTENANCE:

Acquired Date	Altitude Valve Code	User Flag Text

FEATURE CLASS: **Fuel System**

FEATURE TYPE: **Fuel valve point** OBJECT TYPE: **Point**

DEFINITION: **A fitting or device used for shutting or throttling flow through a line.**

FEATURE ATTRIBUTES FOR: Fuel valve point

DATABASE INTEGRATION:

Facility Identifier	Fuel Junction Identifier	Fuel Line Identifier
Graphic Feature Link	Metadata Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Valve Style Code	Diameter Code	Valve Dimension
Fuel Valve Use Code	Elevation Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **General Utility Features**

FEATURE TYPE: **Culvert centerline** OBJECT TYPE: **String/Chain**

DEFINITION: **A concrete ditch with a concrete cover used to house piping for various utilities systems.**

FEATURE ATTRIBUTES FOR: Culvert centerline

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **General Utility Features**

FEATURE TYPE: **Tunnel centerline** OBJECT TYPE: **String/Chain**

DEFINITION: **An opening which goes through an area which holds piping for various utilities systems and is inaccessible.**

FEATURE ATTRIBUTES FOR: Tunnel centerline

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **General Utility Features**

FEATURE TYPE: **Utility area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **An area of utility company responsibility or an area where special construction precautions are required to prevent damage to underground utility services.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Utility area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier		

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
General Utilities Area		

PERFORMANCE:

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **General Utility Features**

FEATURE TYPE: **Utility pole guy point** OBJECT TYPE: **Point**

DEFINITION: **A support configuration, which generally includes connecting hardware, cables, and anchor components, used to stabilize structures (poles, towers, etc.). Down guys typically connect to the structures at key stress points and extend to an anchor at the ground.**

FEATURE ATTRIBUTES FOR: Utility pole guy point

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	General Pole & Tower Location Identifier	Graphic Feature Link
Guy Type Code	Metadata Identifier	To X Coordinate
To Y Coordinate	To Z Coordinate	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Tensile Force Unit Measure Code	Guy Design Discriminator	Cable Diameter Unit Measure Code
Cable Type Code	Cable Tensile Force	Cable Sheath Type Code
Cable Material Code	Cable Length Dimension	Cable Diameter Dimension
Anchor Type Text	Anchor Attachment Type Text	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **General Utility Features**

FEATURE TYPE: **Utility pole tower point** OBJECT TYPE: **Point**

DEFINITION: **A structure used to elevate wires, cables, or other lines above the ground surface.**

FEATURE ATTRIBUTES FOR: Utility pole tower point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Classification Code	General Pole & Tower Location Code	Treatment Type Code
Pole Height Dimension	Pole Length Dimension	Material Composition Code
Grounded Code	Dimension Unit Measure Code	Pole & Tower Design Discriminator
Pole & Tower Condition Code	Capped Code	

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	Treatment Date	User Flag Text

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool anchor point** OBJECT TYPE: **Point**

DEFINITION: **A structure, typically concrete, used to either guide the expansion of pipes or used to fix the movement of some part of the expansion section.**

FEATURE ATTRIBUTES FOR: Heat cool anchor point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Heating and Cooling Pipe Identifier
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Anchor Type Discriminator

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool anode point** OBJECT TYPE: **Point**

DEFINITION: **A device used in utility distribution systems that is electrically connected to a less electrolytically active material so that it will oxidize in the place of the less active material.**

FEATURE ATTRIBUTES FOR: Heat cool anode point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Weight Unit Measure Code	Material Composition Code	Anode Weight

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool anode test station point** OBJECT TYPE: **Point**

DEFINITION: **A central location where anodes are tested for performance.**

FEATURE ATTRIBUTES FOR: Heat cool anode test station point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Wire Type Code	Wire Size Code	Heating and Cooling Anode Test Station Type Code
Number of Terminals Quantity	Insulation Type Code	

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool fitting point** OBJECT TYPE: **Point**

DEFINITION: **A fitting is an item used to connect, cap, plug or otherwise attach to a pipe.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Heat cool fitting point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Heating and Cooling Pipe Identifier
Metadata Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Heating and Cooling Fitting Location Type Code	Size Unit Measure Code	Pipe Diameter Measure Code
Serial Number Code	Model Number Code	Material Composition Code
Ground Elevation Dimension	Fitting Width Dimension	Fitting Length Dimension
Fitting Dimension	Elevation Unit Measure Code	Dimension Unit Measure Code
Diameter Unit Measure Code	Interior Diameter Dimension	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool flow direction arrow** OBJECT TYPE: **Arrow**

DEFINITION: **A flow direction arrow indicates the direction of flow through a line, valve, or component.**

FEATURE ATTRIBUTES FOR: Heat cool flow direction arrow

DATABASE INTEGRATION:

PHYSICAL PROPERTIES:

PERFORMANCE:

OPERATION/MAINTENANCE:

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault (usually concrete, brick, or cast iron) located below grade with above grade access where pipes intersect. The manhole also houses associated fittings, valves, meters, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Heat cool junction point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Heating and Cooling Junction Type Code	Rim Dimension	Number of Valves Quantity
Number of Pipes Quantity	Model Number Code	Exterior Width Dimension
Length Dimension	Manhole Diameter Dimension	Material Composition Code
Invert Elevation Dimension	Ground Elevation Dimension	Elevation Unit Measure Code
Drain Type Code	Dimension Unit Measure Code	Manhole Air Relief Valve Code

PERFORMANCE:

Disposition Code	Heating and Cooling Junction Use Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry a substance from location to location (main line, service line, vent line, etc).**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Heat cool line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Heating and Cooling Plant Identifier
Metadata Identifier	To X Coordinate	To Y Coordinate
To Z Coordinate	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Material Composition Code	Dimension Unit Measure Code	Elevation Unit Measure Code
Expansion Loop Code	Ground Elevation 1 Dimension	Ground Elevation 2 Dimension
Pipe Cathodic Protection Code	Invert Elevation Node 2 Dimension	Heating and Cooling Pipe Location Type Code
Model Number Code	Length Dimension	Pipe Diameter Measure Code
Bottom Slope Percent	Slope Measure Unit Code	Marker Tape Code
Invert Elevation Node 1 Dimension		

PERFORMANCE:

Disposition Code	Heating and Cooling Pipe Location Use Code	Maximum Pressure Rate
Maximum Temperature	Narrative Text	Normal Pressure Rate
Normal Temperature	Pressure Unit Measure Code	Temperature Unit Measure Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc., installed either directly above or immediately adjacent equipment marking its location.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Heat cool marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

General Markers Type Code	Soil Consistency Code	Sign Width Dimension
Sign Text	Sign Material Composition Code	Sign Height Dimension
Pole Material Code	Pole Height Dimension	Pole Depth Dimension
Model Number Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Rock Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text	

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool meter point** OBJECT TYPE: **Point**

DEFINITION: **A device installed in a line for measuring the quantity and or rate of water to a facility or through a section of line.**

FEATURE ATTRIBUTES FOR: Heat cool meter point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Heating and Cooling Junction Identifier
Heating and Cooling Pipe Identifier	Metadata Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Heating and Cooling Meter Location Type Code	Service Line Code	Size Unit Measure Code
Pipe Diameter Measure Code	Serial Number Code	Model Number Code
Meter Dimension	Pump Station Type Code	Ground Elevation Dimension
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	Customer Name	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool plant area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **A building or structure containing boilers, furnaces, chillers, pumps and appurtenant equipment to produce the water temperature/pressure combinations which are distributed to other buildings and facilities.**

FEATURE ATTRIBUTES FOR: Heat cool plant area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Heating and Cooling Plant Type Code	Plant Width Dimension	Length Dimension
Plant Dimension	Perimeter Unit Measure Code	Perimeter Dimension
Ground Elevation Dimension	Elevation Unit Measure Code	Dimension Unit Measure Code
Heating Capacity Unit Measure Code	Area Size Unit Measure Code	Plant Area

PERFORMANCE:

Cooling Capacity Amount	Cooling Capacity Unit Measure Code	Disposition Code
Heating Capacity Amount	Narrative Text	Nominal Cooling Pressure Rate
Nominal Cooling Water Temperature	Nominal Heating Pressure Rate	Nominal Hot Water Temperature
Pressure Unit Measure Code	Product Type Code	Temperature Unit Measure Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool pump point** OBJECT TYPE: **Point**

DEFINITION: **A mechanical device that draws material into itself through an entrance port and forces the material out through an exhaust port.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Heat cool pump point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Pump Type Code	Total Dynamic Head Unit Measure Code	Total Dynamic Head Dimension
Serial Number Code	Centerline Dimension	Model Number Code
Ground Elevation Dimension	Elevation Unit Measure Code	Cooling Method Code

PERFORMANCE:

Actual Pump Capacity Volume	Disposition Code	Heating and Cooling Pump Use Code
Narrative Text	Power Required Code	Pump Capacity Rate
Rate Capacity Unit Measure Code		

OPERATION/MAINTENANCE:

Acquired Date	Priming Method Code	Priming Requirement Indicator Code
User Flag Text		

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool rectifier point** OBJECT TYPE: **Point**

DEFINITION: **A device that changes alternating current to direct current for an impressed current cathodic protection system.**

FEATURE ATTRIBUTES FOR: Heat cool rectifier point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Internal Meter Code	Enclosure Type Code	Cooling Method Code

PERFORMANCE:

Current Output Amount	Current Unit Measure Code	Narrative Text
Number of Phases Quantity	Phase Letter Code	Voltage Input Code
Voltage Output Code		

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool regulator point** OBJECT TYPE: **Point**

DEFINITION: **A pressure regulator automatically reduces the pressure on the downstream side of the valve to a preset magnitude.**

FEATURE ATTRIBUTES FOR: Heat cool regulator point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Heating and Cooling Junction Identifier
Metadata Identifier	Pipe Inlet Identifier	Pipe Outflow Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Heating and Cooling Regulator Type Code	Pipe Diameter Measure Code	Serial Number Code
Elevation Value Dimension	Model Number Code	Ground Elevation Dimension
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Inlet Pressure Rate	Narrative Text
Outlet Maximum Pressure Rate	Pressure Unit Measure Code	Required Maximum Pressure Rate

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Heating & Cooling System**

FEATURE TYPE: **Heat cool valve point** OBJECT TYPE: **Point**

DEFINITION: **A fitting or device used for shutting or throttling flow through a line.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Heat cool valve point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Heating and Cooling Junction Identifier
Heating and Cooling Pipe Identifier	Metadata Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Valve Style Code	Size Dimension	Valve Dimension
Size Unit Measure Code	Ground Elevation Dimension	Elevation Unit Measure Code

PERFORMANCE:

Disposition Code	Heating and Cooling Valve Use Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste discharge point** OBJECT TYPE: **Point**

DEFINITION: **Any location where industrial waste water pipes directly discharge effluent.**

FEATURE ATTRIBUTES FOR: Industrial waste discharge point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Line Identifier
Industrial Waste Tank Identifier	Industrial Waste Treatment Plant Identifier	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Industrial Waste Water Discharge Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste fitting point** OBJECT TYPE: **Point**

DEFINITION: **A fitting is an item used to connect, cap, plug or otherwise alter a pipe.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste fitting point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Line Identifier
Metadata Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Industrial Waste Fitting Location Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code	Material Composition Code	Fitting Width Dimension
Fitting Length Dimension	Fitting Depth Dimension	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste flow direction arrow** OBJECT TYPE: **Arrow**

DEFINITION: **A flow direction arrow indicates the direction of flow through a line, valve, or component.**

FEATURE ATTRIBUTES FOR: Industrial waste flow direction arrow

DATABASE INTEGRATION:

PHYSICAL PROPERTIES:

PERFORMANCE:

OPERATION/MAINTENANCE:

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste grit chamber point** OBJECT TYPE: **Point**

DEFINITION: **A chamber designed to remove sand, gravel, or other heavy solids that have subsiding velocities or specific gravities substantially greater that those of the organic solids in the waste water.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste grit chamber point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Treatment Plant Identifier
Metadata Identifier	Pipe Inlet Identifier	Pipe Outflow Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Oil-Water Separator Code	Grit Type Code	

PERFORMANCE:

Disposition Code	Flow Capacity Volume	Flow Unit Measure Code
Grit Chamber Storage Capacity Volume	Narrative Text	Rate Capacity Unit Measure Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste inlet point** OBJECT TYPE: **Point**

DEFINITION: **The location where water is collected and received into the utility system.**

FEATURE ATTRIBUTES FOR: Industrial waste inlet point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Line Identifier
Metadata Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Weir Elevation Dimension	Model Number Code	Invert Elevation Dimension
Elevation Unit Measure Code	Design Capacity Volume	

PERFORMANCE:

Disposition Code	Flow Unit Measure Code	Inlet Step Domain Discriminator
Narrative Text		

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault (usually concrete, brick, or cast iron) located below grade with above grade access where pipes intersect. The manhole also houses associated fittings, valves, meters, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste junction point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Industrial Waste Junction Type Code	Rim Dimension	Reactantance Amount
Number of Pipes Quantity	Pit Neutralization Agent Name	Model Number Code
Width Dimension	Length Dimension	Diameter Dimension
Material Composition Code	Liner Type Code	Invert Elevation Dimension
Elevation Unit Measure Code	Drain Type Code	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Industrial Waste Junction Use Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste lagoon area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **A shallow man made pool or pond for the purpose of holding industrial waste.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste lagoon area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Treatment Plant Identifier
Industrial Waste Water Discharge Identifier	Laboratory Name Code	Metadata Identifier
Name Code	Outlet Control Identifier	Pipe Inlet Identifier
Pipe Outflow Identifier	Storm Sewer Drainage Basin Identifier	Tributary Utility Subsystem Code
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Number of Pumps Quantity	Aerator Power Rating Amount	Lagoon Area
Area Size Unit Measure Code	Dimension Unit Measure Code	Elevation Unit Measure Code
Invert Elevation Average Dimension	Laboratory Type Code	Length Dimension
Lagoon Width Dimension	Aerator Indicator Code	Number of Outlet Pipes Quantity
Cross Dikes Code	Perimeter Dimension	Perimeter Unit Measure Code
Lagoon Pipe Outlet Code	Soil Consistency Code	Soil Erosion Code
Soil Family Code	Soil Texture Code	Industrial Waste Lagoon Type Code
Weir Outlets Code	Number of Inlet Pipes Quantity	

PERFORMANCE:

Average Depth Dimension	Horsepower Unit Measure Code	Industrial Waste Lagoon Use Code
Narrative Text	Sanitary Wastewater Use Code	

OPERATION/MAINTENANCE:

Acquired Date	Analysis Date	Constructed Date
Frequency Unit Measure Code	Managing Office Code	Monitoring Agency Name
Sampling Frequency Rate	Test Type Code	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry a substance from location to location (main line, service line, force main line, etc).**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Industrial Waste Pumping Station Ejector Identifier
Industrial Waste Tank Identifier	Industrial Waste Treatment Plant Identifier	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Industrial Waste Line Type Code	Slope Measure Unit Code	Bottom Slope Percent
Pipe Diameter Measure Code	Length Dimension	Model Number Code
Material Composition Code	Lined Code	Invert Elevation Node 2 Dimension
Invert Elevation Node 1 Dimension	Elevation Unit Measure Code	Drainage Pipe Material Texture Code
Drainage Pattern Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Industrial Waste Line Use Code	Maximum Pressure Rate
Narrative Text	Normal Pressure Rate	Pressure Unit Measure Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc. installed either directly above or immediately adjacent to underground lines, bends, fittings, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

General Markers Type Code	Soil Consistency Code	Sign Width Dimension
Sign Text	Sign Material Composition Code	Sign Height Dimension
Pole Material Code	Pole Height Dimension	Pole Depth Dimension
Model Number Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Rock Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste meter point** OBJECT TYPE: **Point**

DEFINITION: **A device installed in a line for measuring the quantity and or rate of waste through a section of line.**

FEATURE ATTRIBUTES FOR: Industrial waste meter point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Junction Identifier
Industrial Waste Line Identifier	Metadata Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Industrial Waste Meter Location Type Code	Pipe Diameter Measure Code	Serial Number Code
Width Dimension	Length Dimension	Depth Dimension
Model Number Code	Meter Dimension	Pump Station Type Code
Ground Elevation Dimension	Elevation Unit Measure Code	Dimension Unit Measure Code
Meter Design Discriminator		

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste neutralizer point** OBJECT TYPE: **Point**

DEFINITION: **A receptacle or chamber, which by chemical reactions with reactant materials in the receptacle, makes liquid waste passing through the receptacle chemically neutral.**

FEATURE ATTRIBUTES FOR: Industrial waste neutralizer point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Industrial Waste Neutralizer Type Code	Rim Dimension	Pit Reactantance Amount
Pit Number of Pipes Quantity	Pit Width Dimension	Pit Length Dimension
Pit Diameter Dimension	Pit Neutralization Agent Name	Model Number Code
Material Composition Code	Pit Liner Type Code	Invert Elevation Dimension
Elevation Unit Measure Code	Drain Type Code	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste oil water separator site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A device or structure placed in the waste stream to separate water from oil products.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste oil water separator site

DATABASE INTEGRATION:

Facility Identifier	Feature Name	Graphic Feature Link
Industrial Waste Pumping Station Ejector Identifier	Industrial Waste Tank Identifier	Industrial Waste Treatment Plant Identifier
Metadata Identifier	Permit Number Identifier	Pipe Inlet Identifier
Pipe Outflow Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Oil & Water Separator Area	Industrial Waste Oil & Water Separator Code	Oil & Water Separator Code
Grit Chamber Type Code		

PERFORMANCE:

Contents Descriptive Text	Disposal Description Text	Disposition Code
Flow Capacity Volume	Flow Unit Measure Code	Narrative Text
Oil Capacity Volume	Optimum Operating Temperature	Process Type Name
Rate Capacity Unit Measure Code	Separator Volume	Temperature Unit Measure Code
Volume Unit Measure Code		

OPERATION/MAINTENANCE:

Acquired Date	Permit Expiration Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste pump point** OBJECT TYPE: **Point**

DEFINITION: **A mechanical device that draws material into itself through an entrance port and forces the material out through an exhaust port.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste pump point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Pumping Station Ejector Identifier
Industrial Waste Treatment Plant Identifier	Metadata Identifier	Pipe Inlet Identifier
Pipe Outflow Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Industrial Waste Pump Type Code	Serial Number Code	Centerline Dimension
Model Number Code	Elevation Unit Measure Code	Cooling Method Code

PERFORMANCE:

Actual Pump Capacity Volume	Disposition Code	Horsepower Rate
Industrial Waste Pump Use Code	Narrative Text	Pump Capacity Rate
Rate Capacity Unit Measure Code		

OPERATION/MAINTENANCE:

Acquired Date	Priming Method Code	Priming Requirement Indicator Code
User Flag Text		

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste pump station ejector point** OBJECT TYPE: **Point**

DEFINITION: **A building in which one or more pumps operate to supply material flowing at adequate pressure to or from a distribution system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste pump station ejector point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Treatment Plant Identifier
Metadata Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Industrial Waste Pumping Station Ejector Type Code	Station Width Dimension	Station Length Dimension
Nodal Elevation Dimension	Number of Pumps Quantity	High Water Dimension
Elevation Unit Measure Code	Dimension Unit Measure Code	Pump Design Discriminator

PERFORMANCE:

Disposition Code	Narrative Text	Rate Capacity Unit Measure Code
Structure Condition Code	Wet Well Capacity Volume	

OPERATION/MAINTENANCE:

Acquired Date	Alarm High Level Dimension	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste storage area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **A structure used to contain and hold industrial waste.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste storage area

DATABASE INTEGRATION:

Facility Identifier	Facility Number Identifier	Graphic Feature Link
Industrial Waste Treatment Plant Identifier	Industrial Waste Water Discharge Identifier	Laboratory Name Code
Metadata Identifier	Outlet Control Name	Storm Sewer Drainage Basin Identifier
Unique Feature Identifier	Y Coordinate	

PHYSICAL PROPERTIES:

Vault Pipe Outlet Code	Vault Width Dimension	Dimension Unit Measure Code
Invert Elevation Dimension	Elevation Unit Measure Code	Aerator Indicator Code
Aerator Power Rating Amount	Number of Pumps Quantity	Length Dimension
Number of Pipes Out Quantity	System Y Coordinate	Weir Outlets Code
Laboratory Type Code	Vault Area	Area Size Unit Measure Code
Perimeter Dimension	Perimeter Unit Measure Code	System X Coordinate
Number of Pipes In Quantity		

PERFORMANCE:

Average Depth Dimension	Horsepower Unit Measure Code	Narrative Text
Vault Industrial Wastewater Use Code	Vault Wastewater Use Code	

OPERATION/MAINTENANCE:

Acquired Date	Analysis Date	Frequency Unit Measure Code
Installation Date	Item Condition Code	Last Inspection Date
Managing Agency Code	Managing Office Code	Sampling Frequency Rate
Test Type Code	User Flag Text	

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste tank point** OBJECT TYPE: **Point**

DEFINITION: **An above or below grade receptacle or chamber for holding components on a temporary basis prior to transfer or use.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste tank point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Permit Number Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Top Dimension	Tank Width Dimension	Length Dimension
Tank Diameter Dimension	Depth Dimension	Serial Number Code
Model Number Code	Material Composition Code	Invert Elevation Dimension
Head Units Unit Measure Code	Elevation Unit Measure Code	Dimension Unit Measure Code
Area Size Unit Measure Code	Interior Tank Area	

PERFORMANCE:

Capacity Volume	Discriminator Tank Type Code	Disposition Code
Industrial Waste Tank Use Code	Narrative Text	Normal Operating Head Dimension
Overflow Dimension	Rate Capacity Unit Measure Code	

OPERATION/MAINTENANCE:

Acquired Date	Altitude Valve Code	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste treatment plant area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **Equipment; or a structure containing equipment, processes, piping, or components; used to treat and remove unwanted constituents.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Industrial waste treatment plant area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Industrial Waste Treatment Plant Code	Plant Width Dimension	Length Dimension
Plant Dimension	Perimeter Unit Measure Code	Perimeter Dimension
Number of Pumps Quantity	Elevation Unit Measure Code	Dimension Unit Measure Code
Bypass Code	Area Size Unit Measure Code	Plant Area

PERFORMANCE:

Actual Plant Capacity Volume	Disposition Code	Flow Unit Measure Code
Narrative Text	Rated Flow Capacity Rate	Structure Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Industrial System**

FEATURE TYPE: **Industrial waste valve point** OBJECT TYPE: **Point**

DEFINITION: **A fitting or device used for shutting or throttling flow through a line.**

FEATURE ATTRIBUTES FOR: Industrial waste valve point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Industrial Waste Junction Identifier
Industrial Waste Line Identifier	Industrial Waste Treatment Plant Identifier	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Valve Style Code	Valve Dimension	Pipe Diameter Measure Code
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Industrial Waste Valve Use Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas anode point** OBJECT TYPE: **Point**

DEFINITION: **A material used for utility distribution systems that is electrically connected to a less electrolytically active material so that it will oxidize in the place of the less active material.**

FEATURE ATTRIBUTES FOR: Natural gas anode point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Weight Unit Measure Code	Material Composition Code	Anode Weight

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas anode test station point** OBJECT TYPE: **Point**

DEFINITION: **A central location where anodes are tested for performance.**

FEATURE ATTRIBUTES FOR: Natural gas anode test station point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Wire Type Code	Wire Size Code	Natural Gas Anode Test Station Type Code
Number of Terminals Quantity	Insulation Type Code	

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas fill point** OBJECT TYPE: **Point**

DEFINITION: **Location where gas is control discharged to users.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Natural gas fill point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Natural Gas Line Identifier	Natural Gas Valve Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Valve Style Code	Outlet 3 Diameter Dimension	Outlet 2 Diameter Dimension
Outlet 1 Diameter Dimension	Model Number Code	Hydrant Type Code
Hydrant Dimension	Elevation Unit Measure Code	Diameter Unit Measure Code

PERFORMANCE:

Disposition Code	Fuel Gas Source Code	Fuel Type Code
Narrative Text	Pressure Unit Measure Code	Residual Pressure Rate
Static Pressure Head Rate		

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas fitting point** OBJECT TYPE: **Point**

DEFINITION: **Hardware used to cap, plug, or join pieces of pipe.**

FEATURE ATTRIBUTES FOR: Natural gas fitting point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Natural Gas Line Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Natural Gas Fitting Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code	Material Composition Code	Width Dimension
Length Dimension	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas flow direction arrow** OBJECT TYPE: **Arrow**

DEFINITION: **A flow direction arrow indicates the direction of flow through a line, valve, or component.**

FEATURE ATTRIBUTES FOR: Natural gas flow direction arrow

DATABASE INTEGRATION:

PHYSICAL PROPERTIES:

PERFORMANCE:

OPERATION/MAINTENANCE:

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault (usually concrete, brick, or cast iron) located below grade with above grade access where pipes intersect. The manhole also houses associated fittings, valves, meters, etc.**

FEATURE ATTRIBUTES FOR: Natural gas junction point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Natural Gas Junction Type Code	Rim Dimension	Number of Valves Quantity
Manhole Number of Pipes Quantity	Model Number Code	Width Dimension
Length Dimension	Manhole Diameter Dimension	Material Composition Code
Invert Elevation Dimension	Elevation Unit Measure Code	Drain Type Code
Dimension Unit Measure Code	Manhole Air Relief Valve Code	

PERFORMANCE:

Disposition Code	Narrative Text	Natural Gas Junction Use Code

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas light point** OBJECT TYPE: **Point**

DEFINITION: **A point graphic representing the location of a gas light fixture. A gas light fixture utilizes gas as it's energy source and contains a flame used for illumination of an area.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Natural gas light point

DATABASE INTEGRATION:

Facility Identifier	General Pole & Tower Location Identifier	Graphic Feature Link
Metadata Identifier	Natural Gas Pumping Station Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Model Number Code	Height Dimension	Natural Gas Light Type Code
Fixture Height Dimension		

PERFORMANCE:

Disposition Code	Fixture Use Code	Fuel Type Code
Narrative Text	Rate Unit Measure Code	Use Rate

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry a substance from location to location (main line, service line, vent line, etc).**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Natural gas line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
Natural Gas Pumping Station Identifier	Natural Gas Source Identifier	Natural Gas Tank Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Line Location Type Code	Natural Gas Line Type Code	Pipe Diameter Measure Code
Length Dimension	Model Number Code	Material Composition Code
Invert Elevation Node 2 Dimension	Invert Elevation Node 1 Dimension	Elevation Unit Measure Code
Dimension Unit Measure Code	Pipe Cathodic Protection Code	

PERFORMANCE:

Disposition Code	Fuel Gas Source Code	Fuel Type Code
Maximum Pressure Rate	Narrative Text	Natural Gas Line Use Code
Normal Pressure Rate	Pressure Unit Measure Code	

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc. installed either directly above or immediately adjacent to underground lines, bends, fittings, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Natural gas marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

General Markers Type Code	Soil Consistency Code	Sign Width Dimension
Sign Text	Sign Material Composition Code	Sign Height Dimension
Pole Material Code	Pole Height Dimension	Pole Depth Dimension
Model Number Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Rock Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text	

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas meter point** OBJECT TYPE: **Point**

DEFINITION: **A device installed in a line for measuring the quantity and or rate of gas to a facility or through a section of line.**

FEATURE ATTRIBUTES FOR: Natural gas meter point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Natural Gas Junction Identifier	Natural Gas Line Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Natural Gas Meter Type Code	Service Line Code	Pipe Diameter Measure Code
Serial Number Code	Model Number Code	Meter Dimension
Pump Station Type Code	Elevation Unit Measure Code	Diameter Unit Measure Code

PERFORMANCE:

Disposition Code	Fuel Gas Source Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	Customer Name	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas pump point** OBJECT TYPE: **Point**

DEFINITION: **A mechanical device that draws material into itself through an entrance port and forces the material out through an exhaust port.**

FEATURE ATTRIBUTES FOR: Natural gas pump point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Natural Gas Pumping Station Identifier	Natural Gas Source Identifier	Pipe Inlet Identifier
Pipe Outflow Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Natural Gas Pump Type Code	Serial Number Code	Centerline Dimension
Model Number Code	Elevation Unit Measure Code	Cooling Method Code

PERFORMANCE:

Disposition Code	Flow Rate	Flow Unit Measure Code
Horsepower Rate	Measured Outflow Volume	Narrative Text
Natural Gas Pump Use Code		

OPERATION/MAINTENANCE:

Acquired Date	Priming Method Code	Priming Requirement Indicator Code
User Flag Text		

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas pump station site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A building in which one or more pumps operate to supply material flowing at adequate pressure to or from a distribution system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Natural gas pump station site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Station Area	Station Width Dimension	Natural Gas Pumping Station Type Code
Station Length Dimension	Nodal Elevation Dimension	Number of Pumps Quantity
Elevation Unit Measure Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Fuel Gas Source Code	Narrative Text
Normal Inline Pressure Rate	Outlet Gas Line Maximum Pressure Rate	Output Capacity Volume
Pressure Unit Measure Code	Rate Capacity Unit Measure Code	Structure Condition Code

OPERATION/MAINTENANCE:

Acquired Date	Capacity Alarm Level Volume	User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas rectifier point** OBJECT TYPE: **Point**

DEFINITION: **A device that changes alternating current to direct current for an impressed current cathodic protection system on an element of the distribution system.**

FEATURE ATTRIBUTES FOR: Natural gas rectifier point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Internal Meter Code	Enclosure Type Code	Cooling Method Code

PERFORMANCE:

Current Output Amount	Current Unit Measure Code	Input Voltage Code
Narrative Text	Number of Phases Quantity	Phase Letter Code
Voltage Output Code		

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas regulator reducer point** OBJECT TYPE: **Point**

DEFINITION: **A pressure regulator automatically reduces the pressure on the downstream side of the valve to a preset magnitude.**

FEATURE ATTRIBUTES FOR: Natural gas regulator reducer point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Natural Gas Junction Identifier	Natural Gas Pumping Station Identifier	Pipe Inlet Identifier
Pipe Outflow Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Natural Gas Regulator Reducer Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code		

PERFORMANCE:

Disposition Code	Inlet Gas Line Pressure Rate	Narrative Text
Outlet Gas Line Maximum Operating Pressure Rate	Pressure Unit Measure Code	Required Maximum Outlet Pressure Rate

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas source point** OBJECT TYPE: **Point**

DEFINITION: **The point from which the utility is supplied a product for processing and distribution.**

FEATURE ATTRIBUTES FOR: Natural gas source point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

PERFORMANCE:

Disposition Code	Narrative Text	Natural Gas Source Type Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas tank point** OBJECT TYPE: **Point**

DEFINITION: **An above or below grade receptacle or chamber for holding components on a temporary basis prior to transfer or use.**

FEATURE ATTRIBUTES FOR: Natural gas tank point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Permit Number Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Top Dimension	Tank Width Dimension	Tank Type Code
Length Dimension	Tank Diameter Dimension	Serial Number Code
Model Number Code	Material Composition Code	Invert Elevation Dimension
Head Units Unit Measure Code	Elevation Unit Measure Code	Dimension Unit Measure Code
Area Size Unit Measure Code	Interior Tank Area	

PERFORMANCE:

Capacity Unit Measure Code	Capacity Volume	Disposition Code
Narrative Text	Natural Gas Tank Use Code	Normal Operating Head Dimension
Normal Pressure Rate	Overflow Dimension	Pressure Unit Measure Code

OPERATION/MAINTENANCE:

Acquired Date	Altitude Valve Code	User Flag Text

FEATURE CLASS: **Natural Gas System**

FEATURE TYPE: **Natural gas valve point** OBJECT TYPE: **Point**

DEFINITION: **A fitting or device used for shutting or throttling flow through a line.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Natural gas valve point

DATABASE INTEGRATION:

Branch Name Code	Facility Identifier	Graphic Feature Link
Metadata Identifier	Natural Gas Junction Identifier	Natural Gas Line Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Valve Style Code	Diameter Code	Valve Dimension
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Narrative Text	Natural Gas Valve Use Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Saltwater System**

FEATURE TYPE: **Saltwater expansion joint point** OBJECT TYPE: **Point**

DEFINITION: **Expansion joint in a saltwater distribution line.**

FEATURE ATTRIBUTES FOR: Saltwater expansion joint point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Saltwater System**

FEATURE TYPE: **Saltwater hose line** OBJECT TYPE: **String/Chain**

DEFINITION: **A flexible conduit for conveying saltwater**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Saltwater hose line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Saltwater System**

FEATURE TYPE: **Saltwater line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry saltwater from location to location.**

FEATURE ATTRIBUTES FOR: Saltwater line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Saltwater System**

FEATURE TYPE: **Saltwater valve pit point** OBJECT TYPE: **Point**

DEFINITION: **A below grade chamber too small to enter, containing one or more valves.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Saltwater valve pit point

DATABASE INTEGRATION:

Facility Identifier | Graphic Feature Link | Metadata Identifier

Unique Feature Identifier | X Coordinate | Y Coordinate

Z Coordinate

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Saltwater System**

FEATURE TYPE: **Saltwater valve point** OBJECT TYPE: **Point**

DEFINITION: **A device to control flow through a saltwater line.**

FEATURE ATTRIBUTES FOR: Saltwater valve point

DATABASE INTEGRATION:

Facility Identifier | Graphic Feature Link | Metadata Identifier

Unique Feature Identifier | X Coordinate | Y Coordinate

Z Coordinate

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer armor point** OBJECT TYPE: **Point**

DEFINITION: **Any location where armor stone is used for erosion protection in an open channel.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer armor point

DATABASE INTEGRATION:

Channel Reach Name	Facility Identifier	From X Coordinate
From Y Coordinate	From Z Coordinate	Graphic Feature Link
Metadata Identifier	Storm Sewer Drainage Basin Identifier	Storm Sewer Open Drainage Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Top Width Dimension	Slope Measure Unit Code	Percentage Slope Right Channel Dimension
Percentage Slope Left Channel Dimension	Bottom Slope Percent	Invert Elevation Node 2 Dimension
Invert Elevation Node 1 Dimension	Elevation Unit Measure Code	Dimension Unit Measure Code
Bottom Width Dimension	Bedding Material Code	Storm Sewer Armor Type Code
Length Dimension		

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer culvert line** OBJECT TYPE: **String/Chain**

DEFINITION: **Interception and removal of ground water or surface water.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer culvert line

DATABASE INTEGRATION:

Facility Identifier	Feature Name	From X Coordinate
From Y Coordinate	From Z Coordinate	Graphic Feature Link
Hydrographic Drainage Zone Code	Metadata Identifier	Storm Sewer Discharge Location Identifier
Storm Sewer Drainage Basin Identifier	Storm Sewer Pumping Station Identifier	To X Coordinate
To Y Coordinate	To Z Coordinate	Unique Feature Identifier
Water Treatment Plant Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Length Dimension	Drainage Pattern Code	Drainage Pipe Material Texture Code
Elevation Unit Measure Code	Invert Elevation Node 1 Dimension	Invert Elevation Node 2 Dimension
Lined Code	Dimension Unit Measure Code	Model Number Code
Gate Code	Inside Width Dimension	Screen Type Code
Pipe Diameter Measure Code	Bottom Slope Percent	Slope Measure Unit Code
Storm Sewer Line Type Code	Material Composition Code	

PERFORMANCE:

Disposition Code	Maximum Pressure Rate	Narrative Text
Normal Pressure Rate	Pressure Unit Measure Code	Storm Sewer Line Use Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer discharge point** OBJECT TYPE: **Point**

DEFINITION: **Any location where storm sewer pipes directly discharge effluent.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer discharge point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Drainage Basin Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Storm Sewer Discharge Location Type Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer downspout point** OBJECT TYPE: **Point**

DEFINITION: **A pipe normally attached to the side of a building or structure which conveys rainfall runoff from the roof area to the ground surface or an underground collection system.**

FEATURE ATTRIBUTES FOR: Storm sewer downspout point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Pumping Station Identifier	Unique Feature Identifier	Water Treatment Plant Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Storm Sewer Downspout Type Code	Pipe Diameter Measure Code	Model Number Code
Material Composition Code	Discharge Point Ground Dimension	Elevation Unit Measure Code
Downspout Dimension	Dimension Unit Measure Code	Base Elevation Dimension

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer drainage basin area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **An area in which surface runoff collects and from which it is carried by a drainage system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer drainage basin area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Grade Unit Measure Code
Minimum Grade Angle	Mean Grade Angle	Maximum Grade Angle
Area Size Unit Measure Code	Drainage Basin Area	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer drainage divide line** OBJECT TYPE: **String/Chain**

DEFINITION: **The border of a drainage basin where one side directs runoff to one basin and the other side directs runoff to a different basin.**

FEATURE ATTRIBUTES FOR: Storm sewer drainage divide line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer fitting point** OBJECT TYPE: **Point**

DEFINITION: **A fitting is an item used to connect, cap, plug or otherwise alter a pipe.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer fitting point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Storm Sewer Fitting Location Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code	Material Composition Code	Fitting Width Dimension
Fitting Length Dimension	Fitting Depth Dimension	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer flood area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **Areas where the storm sewer drainage capacity has been exceeded resulting in localized flooding.**

FEATURE ATTRIBUTES FOR: Storm sewer flood area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier	Storm Sewer Open Drainage Identifier
Unique Feature Identifier		

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Elevation Unit Measure Code
Dimension Unit Measure Code	Area Size Unit Measure Code	Flood Area

PERFORMANCE:

Flood Dimension	Flood Flow Rate	Flood Frequency Amount
Flow Unit Measure Code	Flow Width Dimension	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer flow control point** OBJECT TYPE: **Point**

DEFINITION: **Devices for a storm water system to control the pressure in and out of the open channel.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer flow control point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Drainage Basin Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Storm Sewer Flow Control Devices Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code	Pump Station Type Code	Width Dimension
Length Dimension	Depth Dimension	Elevation Unit Measure Code
Dimension Unit Measure Code	Control Centerline Dimension	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer flow direction arrow** OBJECT TYPE: **Arrow**

DEFINITION: **A flow direction arrow indicates the direction of flow through a line, valve, or component.**

FEATURE ATTRIBUTES FOR: Storm sewer flow direction arrow

DATABASE INTEGRATION:

PHYSICAL PROPERTIES:

PERFORMANCE:

OPERATION/MAINTENANCE:

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer gate point** OBJECT TYPE: **Point**

DEFINITION: **A movable barrier used in an open channel.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer gate point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier	Storm Sewer Flow Control Devices Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Pipe Diameter Measure Code	Material Composition Code	Invert Elevation Dimension
Gate Width Dimension	Gate Class Type Code	Length Dimension
Elevation Unit Measure Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Flow Capacity Volume	Narrative Text
Rate Capacity Unit Measure Code	Structure Condition Code	

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer headwall line** OBJECT TYPE: **String/Chain**

DEFINITION: **A wall (of any material) at the end of a culvert or drain to serve one or more of the following purposes: protect fill from scour or undermining; increase hydraulic efficiency, divert direction of flow, and serve as a retaining wall.**

FEATURE ATTRIBUTES FOR: Storm sewer headwall line

DATABASE INTEGRATION:

Facility Identifier	Feature Name	From X Coordinate
From Y Coordinate	From Z Coordinate	Graphic Feature Link
Metadata Identifier	To X Coordinate	To Y Coordinate
To Z Coordinate	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

River Mile Reference Dimension

PERFORMANCE:

Narrative Text	Pollution Type Code

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer headwall point** OBJECT TYPE: **Point**

DEFINITION: **A wall (of any material) at the end of a culvert or drain to serve one or more of the following purposes: protect fill from scour or undermining; increase hydraulic efficiency, divert direction of flow, and serve as a retaining wall.**

FEATURE ATTRIBUTES FOR: Storm sewer headwall point

DATABASE INTEGRATION:

Facility Identifier	Feature Name	From X Coordinate
From Y Coordinate	From Z Coordinate	Graphic Feature Link
Metadata Identifier	To X Coordinate	To Y Coordinate
To Z Coordinate	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

River Mile Reference Dimension		

PERFORMANCE:

Narrative Text	Pollution Type Code	

OPERATION/MAINTENANCE:

User Flag Text		

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer inlet point** OBJECT TYPE: **Point**

DEFINITION: **The location where water is collected and received into the utility system.**

FEATURE ATTRIBUTES FOR: Storm sewer inlet point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Weir Elevation Dimension	Model Number Code	Invert Elevation Dimension
Elevation Unit Measure Code	Design Capacity Volume	

PERFORMANCE:

Disposition Code	Flow Unit Measure Code	Inlet Step Domain Discriminator
Narrative Text		

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault (usually concrete, brick, or cast iron) located below grade with above grade access where pipes intersect. The manhole also houses associated fittings, valves, meters, etc.**

FEATURE ATTRIBUTES FOR: Storm sewer junction point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Storm Sewer Junction Type Code	Rim Dimension	Number of Pipes Quantity
Model Number Code	Width Dimension	Length Dimension
Manhole Diameter Dimension	Material Composition Code	Invert Elevation Dimension
Elevation Unit Measure Code	Drain Type Code	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text	Storm Sewer Junction Use Code

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry a substance from location to location (main line, service line, vent line, etc).**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer line

DATABASE INTEGRATION:

Facility Identifier	Feature Name	From X Coordinate
From Y Coordinate	From Z Coordinate	Graphic Feature Link
Hydrographic Drainage Zone Code	Metadata Identifier	Storm Sewer Discharge Location Identifier
Storm Sewer Drainage Basin Identifier	Storm Sewer Pumping Station Identifier	To X Coordinate
To Y Coordinate	To Z Coordinate	Unique Feature Identifier
Water Treatment Plant Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Length Dimension	Drainage Pattern Code	Drainage Pipe Material Texture Code
Elevation Unit Measure Code	Invert Elevation Node 1 Dimension	Invert Elevation Node 2 Dimension
Lined Code	Dimension Unit Measure Code	Model Number Code
Gate Code	Inside Width Dimension	Screen Type Code
Pipe Diameter Measure Code	Bottom Slope Percent	Slope Measure Unit Code
Storm Sewer Line Type Code	Material Composition Code	

PERFORMANCE:

Disposition Code	Maximum Pressure Rate	Narrative Text
Normal Pressure Rate	Pressure Unit Measure Code	Storm Sewer Line Use Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc. installed either directly above or immediately adjacent to underground lines, bends, fittings, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

General Markers Type Code	Soil Consistency Code	Sign Width Dimension
Sign Text	Sign Material Composition Code	Sign Height Dimension
Pole Material Code	Pole Height Dimension	Pole Depth Dimension
Model Number Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Rock Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer oil water separator site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A device or structure placed in the water stream to separate water from oil products.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer oil water separator site

DATABASE INTEGRATION:

Facility Identifier	Feature Name	Graphic Feature Link
Metadata Identifier	Permit Number Identifier	Pipe Inlet Identifier
Pipe Outflow Identifier	Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier
Storm Sewer Pumping Station Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Oil & Water Separator Area	Storm Sewer Oil Water Separator Type Code	Oil & Water Separator Code
Grit Chamber Type Code		

PERFORMANCE:

Capacity Unit Measure Code	Contents Descriptive Text	Disposal Description Text
Disposition Code	Flow Capacity Volume	Flow Unit Measure Code
Narrative Text	Oil Capacity Volume	Optimum Operating Temperature
Process Type Name	Separator Volume	Temperature Unit Measure Code
Volume Unit Measure Code		

OPERATION/MAINTENANCE:

Acquired Date	Permit Expiration Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer open drainage line** OBJECT TYPE: **String/Chain**

DEFINITION: **Interception and removal of ground water or surface water by natural means.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer open drainage line

DATABASE INTEGRATION:

Channel Reach Name	Facility Identifier	Flood Zone Local Name Code
From X Coordinate	From Y Coordinate	From Z Coordinate
Graphic Feature Link	Hydrographic Drainage Zone Code	Metadata Identifier
Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier	To X Coordinate
To Y Coordinate	To Z Coordinate	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Elevation Unit Measure Code	Bank Armor Type Code	Bedding Material Code
Bottom Width Dimension	Channel Length Dimension	Channel Style Code
Area Size Unit Measure Code	Dimension Unit Measure Code	Top Width Dimension
Invert Elevation Node 1 Dimension	Invert Elevation Node 2 Dimension	Bottom Slope Percent
Percentage Slope Left Channel Dimension	Percentage Slope Right Channel Dimension	Slope Measure Unit Code
Drainage Design Discriminator		

PERFORMANCE:

Disposition Code	Flood Depth Dimension	Flow Unit Measure Code
Mean Flow Cross Section Dimension	Mean Flow Dimension	Mean Flow Rate
Narrative Text	Number of Floods Quantity	Top Width of Mean Flow Dimension

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer pump point** OBJECT TYPE: **Point**

DEFINITION: **A mechanical device that draws material into itself through an entrance port and forces the material out through an exhaust port.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer pump point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Storm Sewer Discharge Location Identifier
Storm Sewer Drainage Basin Identifier	Storm Sewer Pumping Station Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Storm Sewer Pump Type Code	Serial Number Code	Centerline Dimension
Model Number Code	Elevation Unit Measure Code	Cooling Method Code

PERFORMANCE:

Disposition Code	Flow Rate	Flow Unit Measure Code
Horsepower Rate	Measured Outflow Volume	Narrative Text
Storm Sewer Pump Use Code		

OPERATION/MAINTENANCE:

Acquired Date	Priming Method Code	Priming Requirement Indicator Code
User Flag Text		

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer pump station site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A building in which one or more pumps operate to supply material flowing at adequate pressure to or from a distribution system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer pump station site

DATABASE INTEGRATION:

Facility Identifier	Feature Name	Graphic Feature Link
Metadata Identifier	Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Station Width Dimension	Elevation Unit Measure Code	High Water Dimension
Invert Elevation Dimension	Number of Pumps Quantity	Nodal Elevation Dimension
Dimension Unit Measure Code	Station Length Dimension	Perimeter Unit Measure Code
Storm Sewer Pumping Station Type Code	Water Elevation Dimension	River Mile Reference Dimension
Station Area	Area Size Unit Measure Code	Perimeter Dimension
Centerline Dimension		

PERFORMANCE:

Capacity Measure Code	Disposition Code	Narrative Text
Output Capacity Rate	Rate Capacity Unit Measure Code	Structure Condition Code
Wet Well Capacity Volume		

OPERATION/MAINTENANCE:

Acquired Date	Alarm High Level Dimension	End Date
User Flag Text		

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer reservoir point** OBJECT TYPE: **Point**

DEFINITION: **The location where storm sewer water is collected.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer reservoir point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Outlet Control Identifier	Storm Sewer Discharge Location Identifier
Storm Sewer Drainage Basin Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Cross Dikes Code	Reservoir Width Dimension	Storm Sewer Collection Reservoirs Type Code
Length Dimension	Invert Elevation Average Dimension	Elevation Unit Measure Code
Dimension Unit Measure Code		

PERFORMANCE:

Average Depth Dimension	Disposition Code	Narrative Text
Storm Sewer Collection Reservoirs Use Code		

OPERATION/MAINTENANCE:

Acquired Date	Constructed Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer stilling basin site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **The location where the energy from turbulent water flow is reduced.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Storm sewer stilling basin site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Outlet Control Identifier	Storm Sewer Discharge Location Identifier
Storm Sewer Drainage Basin Identifier	Storm Sewer Flow Control Devices Identifier	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Stilling Basin Area	Cross Dikes Code	Storm Sewer Stilling Basin Type Code
Stilling Basin Width Dimension	Length Dimension	Invert Elevation Average Dimension
Elevation Unit Measure Code	Dimension Unit Measure Code	

PERFORMANCE:

Average Depth Dimension	Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	Constructed Date	User Flag Text

FEATURE CLASS: **Storm System**

FEATURE TYPE: **Storm sewer valve point** OBJECT TYPE: **Point**

DEFINITION: **A fitting or device used for shutting or throttling flow through a line.**

FEATURE ATTRIBUTES FOR: Storm sewer valve point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Storm Sewer Discharge Location Identifier	Storm Sewer Drainage Basin Identifier	Storm Sewer Junction Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Valve Style Code	Valve Dimension	Pipe Diameter Measure Code
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Narrative Text	Storm Sewer Valve Use Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater discharge point** OBJECT TYPE: **Point**

DEFINITION: **Any location where wastewater pipes directly discharge effluent.**

FEATURE ATTRIBUTES FOR: Wastewater discharge point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater Drain Field Identifier
Wastewater Stilling Tank Identifier	Wastewater Treatment Plant Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

PERFORMANCE:

Disposition Code	Narrative Text	Wastewater System Discharge Location Type Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater disposal tank site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **An above or below grade receptacle or chamber for holding components on a temporary basis prior to transfer or use.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater disposal tank site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Permit Number Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Depth Dimension	Area Size Unit Measure Code	Dimension Unit Measure Code
Elevation Unit Measure Code	Normal Head Dimension	Head Units Unit Measure Code
Invert Elevation Dimension	Material Composition Code	Interior Tank Area
Serial Number Code	Perimeter Unit Measure Code	Description Code
Tank Diameter Dimension	Length Dimension	Tank Style Code
Tank Width Dimension	Top Dimension	Perimeter Dimension
Model Number Code		

PERFORMANCE:

Capacity Volume	Disposition Code	Narrative Text
Normal Pressure Rate	Overflow Dimension	Pressure Unit Measure Code
Rate Capacity Unit Measure Code	Wastewater Disposal Tank Use Code	

OPERATION/MAINTENANCE:

Acquired Date	Altitude Valve Code	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater downspout point** OBJECT TYPE: **Point**

DEFINITION: **A pipe normally attached to the side of a building or structure which conveys rainfall runoff from the roof area to the ground surface or an underground collection system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater downspout point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	Wastewater Drain Field Identifier	Wastewater Pump Ejector Station Identifier
Wastewater Treatment Plant Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Wastewater Downspout Type Code	Pipe Diameter Measure Code	Model Number Code
Material Composition Code	Discharge Point Ground Dimension	Elevation Unit Measure Code
Downspout Dimension	Dimension Unit Measure Code	Base Elevation Dimension

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater drain field area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **The area of influence where perforated pipe placed in gravel trenches carries effluent from a waste storage containment for percolation into the earth.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater drain field area

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater Pump Ejector Station Identifier
Wastewater Stilling Tank Identifier	Wastewater Treatment Plant Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Model Number Code	Area Size Unit Measure Code	Dimension Unit Measure Code
Drainage Pattern Code	Drainage Pipe Material Texture Code	Elevation Unit Measure Code
Invert Elevation Node 1 Dimension	Invert Elevation Node 2 Dimension	Drainage Basin Area
Material Composition Code	Line Location Type Code	Perimeter Dimension
Perimeter Unit Measure Code	Length Dimension	Pipe Diameter Measure Code
Bottom Slope Percent	Slope Measure Unit Code	Wastewater Drain Field Type Code
Lined Code		

PERFORMANCE:

Disposition Code	Maximum Pressure Rate	Narrative Text
Normal Pressure Rate	Pressure Unit Measure Code	Wastewater Drain Field Use Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater filtration bed area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **A below grade system consisting of perforated piping installed in sand or gravel beds or trenches designed to permit the uniform distribution and absorption of effluent from a septic tank or aerobic unit into the soil.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater filtration bed area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Drainage Lateral Average Length Dimension	Area Size Unit Measure Code	Dimension Unit Measure Code
Field Drain Style Code	Drainage Pattern Code	Drainage Pipe Material Texture Code
Distribution Box Code	Distribution Box Invert Elevation Dimension	Elevation Unit Measure Code
Invert Elevation Node 1 Dimension	Invert Elevation Node 2 Dimension	Stilling Tank Area
Drainage Lateral Total Length Dimension	Trench Width Dimension	Length Unit Measure Code
Material Composition Code	Number of Laterals Quantity	Perimeter Dimension
Perimeter Unit Measure Code	Slope Measure Unit Code	Depth Dimension
Length Dimension	Tank Style Code	Tank Width Dimension
Average Drainage Lateral Slope Angle		

PERFORMANCE:

Capacity Volume	Disposition Code	Flow Rate
Flow Unit Measure Code	Narrative Text	Rate Capacity Unit Measure Code
Soil Percolation Rate	Soil Percolation Unit Measure Code	Structure Condition Code
Wastewater Stilling Tank Use Code		

OPERATION/MAINTENANCE:

Acquired Date	Manhole Accessible Boolean Value Code	User Flag Text

---

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater fitting point** OBJECT TYPE: **Point**

DEFINITION: **A fitting is an item used to connect, cap, plug or otherwise alter a pipe.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater fitting point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater Drain Field Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Wastewater Fitting Location Type Code	Pipe Diameter Measure Code	Serial Number Code
Model Number Code	Material Composition Code	Fitting Width Dimension
Fitting Length Dimension	Fitting Depth Dimension	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater flow direction arrow** OBJECT TYPE: **Arrow**

DEFINITION: **A flow direction arrow indicates the direction of flow through a line, valve, or component.**

FEATURE ATTRIBUTES FOR: Wastewater flow direction arrow

DATABASE INTEGRATION:

PHYSICAL PROPERTIES:

PERFORMANCE:

OPERATION/MAINTENANCE:

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater grease trap point** OBJECT TYPE: **Point**

DEFINITION: **A tank which separates grease from water, collects the grease for removal, and allows the water to exit.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater grease trap point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Tributary Utility Subsystem Code
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Laterals Total Diameter Dimension	Field Drain Style Code	Drainage Pattern Code
Drainage Pipe Material Texture Code	Distribution Box Code	Distribution Box Invert Elevation Dimension
Elevation Unit Measure Code	Depth Dimension	Length Dimension
Inside Width Dimension	Dimension Unit Measure Code	Invert Elevation Node 2 Dimension
Trench Width Dimension	Laterals Diameter Unit Measure Code	Laterals Average Diameter Dimension
Average Drainage Lateral Slope Angle	Drainage Lateral Total Length Dimension	Drainage Lateral Average Length Dimension
Length Unit Measure Code	Material Composition Code	Number of Laterals Quantity
Slope Measure Unit Code	Tank Style Code	Invert Elevation Node 1 Dimension

PERFORMANCE:

Capacity Unit Measure Code	Capacity Volume	Disposition Code
Flow Rate	Flow Unit Measure Code	Narrative Text
Soil Percolation Rate	Soil Percolation Unit Measure Code	Structure Condition Code

OPERATION/MAINTENANCE:

Acquired Date	Manhole Accessible Boolean Value Code	User Flag Text

---

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater grit chamber point** OBJECT TYPE: **Point**

DEFINITION: **A chamber designed to remove sand, gravel, or other heavy solids that have subsiding velocities or specific gravities substantially greater that those of the organic solids in the waste water.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater grit chamber point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Tributary Utility Subsystem Code
Unique Feature Identifier	Wastewater Treatment Plant Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Oil-Water Separator Code	Grit Type Code	

PERFORMANCE:

Disposition Code	Flow Capacity Volume	Flow Unit Measure Code
Grit Chanmber Storage Capacity Volume	Narrative Text	Rate Capacity Unit Measure Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater inlet point** OBJECT TYPE: **Point**

DEFINITION: **The location where waste water is collected and received into the utility system.**

FEATURE ATTRIBUTES FOR: Wastewater inlet point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater Drain Field Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Weir Elevation Dimension	Model Number Code	Invert Elevation Dimension
Inlet Style Code	Elevation Unit Measure Code	Design Capacity Volume

PERFORMANCE:

Disposition Code	Flow Unit Measure Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault (usually concrete, brick, or cast iron) located below grade with above grade access where pipes intersect. The manhole also houses associated fittings, valves, meters, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater junction point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Wastewater Junction Type Code	Rim Dimension	Manhole Reactance Amount
Manhole Number of Pipes Quantity	Manhole Neutralization Agent Name	Model Number Code
Width Dimension	Length Dimension	Manhole Diameter Dimension
Material Composition Code	Manhole Liner Type Code	Invert Elevation Dimension
Elevation Unit Measure Code	Drain Type Code	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text	Wastewater Junction Use Code

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater lagoon area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **A shallow man made pool or pond for the purpose of providing treatment of domestic wastewater.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater lagoon area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Laboratory Name Code
Metadata Identifier	Name Code	Outlet Control Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Storm Sewer Drainage Basin Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater System Discharge Location Identifier
Wastewater Treatment Plant Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Perimeter Dimension	Aerator Power Rating Amount	Lagoon Area
Area Size Unit Measure Code	Dimension Unit Measure Code	Elevation Unit Measure Code
Invert Elevation Average Dimension	Laboratory Type Code	Length Dimension
Aerator Indicator Code	Number of Pumps Quantity	Cross Dikes Code
Perimeter Unit Measure Code	Lagoon Pipe Outlet Code	Soil Consistency Code
Soil Erosion Code	Soil Family Code	Soil Texture Code
Wastewater Lagoon Type Code	Weir Outlets Code	Lagoon Width Dimension

PERFORMANCE:

Average Depth Dimension	Horsepower Unit Measure Code	Narrative Text
Sanitary Wastewater Use Code	Wastewater Lagoon Use Code	

OPERATION/MAINTENANCE:

Acquired Date	Analysis Date	Constructed Date
Frequency Unit Measure Code	Managing Office Code	Monitoring Agency Name
Sampling Frequency Rate	Test Type Code	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry a substance from location to location (main line, service line, force main line, etc).**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater Pump Ejector Station Identifier
Wastewater Stilling Tank Identifier	Wastewater Treatment Plant Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Model Number Code	Area Size Unit Measure Code	Dimension Unit Measure Code
Drainage Pattern Code	Drainage Pipe Material Texture Code	Elevation Unit Measure Code
Invert Elevation Node 1 Dimension	Invert Elevation Node 2 Dimension	Drainage Basin Area
Material Composition Code	Line Location Type Code	Perimeter Dimension
Perimeter Unit Measure Code	Length Dimension	Pipe Diameter Measure Code
Bottom Slope Percent	Slope Measure Unit Code	Wastewater Drain Field Type Code
Lined Code		

PERFORMANCE:

Disposition Code	Maximum Pressure Rate	Narrative Text
Normal Pressure Rate	Pressure Unit Measure Code	Wastewater Drain Field Use Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc. installed either directly above or immediately adjacent to underground lines, bends, fittings, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

General Markers Type Code	Soil Consistency Code	Sign Width Dimension
Sign Text	Sign Material Composition Code	Sign Height Dimension
Pole Material Code	Pole Height Dimension	Pole Depth Dimension
Model Number Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Rock Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater meter point** OBJECT TYPE: **Point**

DEFINITION: **A device installed in a line for measuring the quantity and or rate of water through a section of line.**

FEATURE ATTRIBUTES FOR: Wastewater meter point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	Wastewater Drain Field Identifier	Wastewater Junction Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Wastewater Meter Type Code	Pipe Diameter Measure Code	Serial Number Code
Width Dimension	Length Dimension	Depth Dimension
Model Number Code	Meter Dimension	Pump Station Type Code
Elevation Unit Measure Code	Dimension Unit Measure Code	Meter Design Discriminator

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater neutralizer point** OBJECT TYPE: **Point**

DEFINITION: **A receptacle or chamber, which by chemical reactions with reactant materials in the receptacle, makes liquid waste passing through the receptacle chemically neutral.**

FEATURE ATTRIBUTES FOR: Wastewater neutralizer point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Wastewater Neutralizer Type Code	Rim Dimension	Reactantance Amount
Number of Pipes Quantity	Exterior Width Dimension	Length Dimension
Diameter Dimension	Neutralization Agent Name	Model Number Code
Material Composition Code	Liner Type Code	Invert Elevation Dimension
Elevation Unit Measure Code	Drain Type Code	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater oil water separator site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A device or structure placed in the waste stream to separate water from oil products.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater oil water separator site

DATABASE INTEGRATION:

Facility Identifier	Feature Name	Graphic Feature Link
Metadata Identifier	Permit Number Identifier	Pipe Inlet Identifier
Pipe Outflow Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
Wastewater Pump Ejector Station Identifier	Wastewater Stilling Tank Identifier	Wastewater Treatment Plant Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Oil & Water Separator Area	Wastewater Oil & Water Separator Type Code	Oil & Water Separator Code
Grit Chamber Type Code		

PERFORMANCE:

Capacity Unit Measure Code	Contents Descriptive Text	Disposal Description Text
Disposition Code	Flow Capacity Volume	Flow Unit Measure Code
Narrative Text	Oil Capacity Volume	Optimum Operating Temperature
Process Type Name	Separator Volume	Temperature Unit Measure Code
Volume Unit Measure Code		

OPERATION/MAINTENANCE:

Acquired Date	Permit Expiration Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater pump ejector station site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A building in which one or more pumps operate to supply material flowing at adequate pressure to or from a distribution system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater pump ejector station site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater Treatment Plant Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Station Area	Wastewater Pump Ejector Station Type Code	Station Width Dimension
Length Dimension	Centerline Dimension	Nodal Elevation Dimension
Number of Pumps Quantity	Invert Elevation Dimension	High Water Dimension
Elevation Unit Measure Code	Dimension Unit Measure Code	Pump Design Discriminator

PERFORMANCE:

Disposition Code	Narrative Text	Rate Capacity Unit Measure Code
Structure Condition Code	Wet Well Capacity Volume	

OPERATION/MAINTENANCE:

Acquired Date	Alarm High Level Dimension	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater pump point** OBJECT TYPE: **Point**

DEFINITION: **A mechanical device that draws material into itself through an entrance port and forces the material out through an exhaust port.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater pump point

DATABASE INTEGRATION:

Facility Identifier	Feature Name	Graphic Feature Link
Metadata Identifier	Pipe Inlet Identifier	Pipe Outflow Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater Pump Ejector Station Identifier
Wastewater Treatment Plant Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

River Mile Reference Dimension	Number of Pumps Quantity	Wastewater Pump Type Code
Serial Number Code	Centerline Dimension	Model Number Code
Elevation Unit Measure Code	Cooling Method Code	

PERFORMANCE:

Disposition Code	Flow Unit Measure Code	Horsepower Rate
Measured Outflow Volume	Narrative Text	Rated Outflow Volume
Wastewater Pump Use Code		

OPERATION/MAINTENANCE:

Acquired Date	Priming Method Code	Priming Requirement Indicator Code
User Flag Text		

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater septic tank point** OBJECT TYPE: **Point**

DEFINITION: **Typically, a below grade receptacle or chamber in which solid organic waste is decomposed and purified by anaerobic bacteria.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater septic tank point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Drainage Lateral Average Length Dimension	Area Size Unit Measure Code	Dimension Unit Measure Code
Field Drain Style Code	Drainage Pattern Code	Drainage Pipe Material Texture Code
Distribution Box Code	Distribution Box Invert Elevation Dimension	Elevation Unit Measure Code
Invert Elevation Node 1 Dimension	Invert Elevation Node 2 Dimension	Stilling Tank Area
Drainage Lateral Total Length Dimension	Trench Width Dimension	Length Unit Measure Code
Material Composition Code	Number of Laterals Quantity	Perimeter Dimension
Perimeter Unit Measure Code	Slope Measure Unit Code	Depth Dimension
Length Dimension	Tank Style Code	Tank Width Dimension
Average Drainage Lateral Slope Angle		

PERFORMANCE:

Capacity Volume	Disposition Code	Flow Rate
Flow Unit Measure Code	Narrative Text	Rate Capacity Unit Measure Code
Soil Percolation Rate	Soil Percolation Unit Measure Code	Structure Condition Code
Wastewater Stilling Tank Use Code		

OPERATION/MAINTENANCE:

Acquired Date	Manhole Accessible Boolean Value Code	User Flag Text

---

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater sludge bed area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **An area used for spreading and drying waste sludge.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater sludge bed area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Permit Number Identifier	Tributary Utility Subsystem Code	Unique Feature Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Sludge Drying Bed Area	Elevation Unit Measure Code	Invert Elevation Dimension
Dimension Unit Measure Code	Depth Dimension	Drying Bed Diameter Dimension
Length Dimension	Sludge Bed Width Dimension	Material Value Code

PERFORMANCE:

Disposition Code	Narrative Text	Rate Capacity Unit Measure Code
Sludge Bed Capacity Volume		

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater treatment plant site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **Equipment; or a structure containing equipment, processes, piping, or components; used to treat and remove unwanted constituents.**

FEATURE ATTRIBUTES FOR: Wastewater treatment plant site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Treatment Plant Type Code	Plant Width Dimension	Length Dimension
Plant Dimension	Perimeter Unit Measure Code	Perimeter Dimension
Number of Pumps Quantity	Elevation Unit Measure Code	Dimension Unit Measure Code
Bypass Code	Area Size Unit Measure Code	Plant Area

PERFORMANCE:

Actual Plant Flow Rate	Disposition Code	Flow Unit Measure Code
Narrative Text	Rated Flow Capacity Rate	Structure Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater treatment unit site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A waste water treatment plant and all appurtenant equipment, buildings, and facilities relating to water treatment.**

FEATURE ATTRIBUTES FOR: Wastewater treatment unit site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Treatment Plant Type Code	Plant Width Dimension	Length Dimension
Plant Dimension	Perimeter Unit Measure Code	Perimeter Dimension
Number of Pumps Quantity	Elevation Unit Measure Code	Dimension Unit Measure Code
Bypass Code	Area Size Unit Measure Code	Plant Area

PERFORMANCE:

Actual Plant Flow Rate	Disposition Code	Flow Unit Measure Code
Narrative Text	Rated Flow Capacity Rate	Structure Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Wastewater System**

FEATURE TYPE: **Wastewater valve point** OBJECT TYPE: **Point**

DEFINITION: **A fitting or device used for shutting or throttling flow through a line.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Wastewater valve point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	Wastewater Drain Field Identifier
Wastewater Junction Identifier	Wastewater Treatment Plant Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Valve Style Code	Valve Dimension	Pipe Diameter Measure Code
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Narrative Text	Wastewater Valve Use Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water anode point** OBJECT TYPE: **Point**

DEFINITION: **A material used for utility distribution systems that is electrically connected to a less electrolytically active material so that it will oxidize in the place of the less active material.**

FEATURE ATTRIBUTES FOR: Water anode point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Weight Unit Measure Code	Material Composition Code	Anode Weight

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water anode test station point** OBJECT TYPE: **Point**

DEFINITION: **A central location where anodes are tested for performance.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water anode test station point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Wire Type Code	Wire Size Code	Water Anode Test Station Type Code
Number of Terminal's Quantity	Insulation Type Code	

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water fire connection point** OBJECT TYPE: **Point**

DEFINITION: **An apparatus which dispenses fluids for use in fire management.**

FEATURE ATTRIBUTES FOR: Water fire connection point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	Water Line Identifier	Water Valve Location Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Model Number Code	Diameter Unit Measure Code	Elevation Unit Measure Code
Ground Elevation Dimension	Hydrant Dimension	Hydrant Type Code
Connection Design Code	Hydrant Measure Type Code	Fire Hydrant Classification Code
Hydrant Outlet 1 Diameter Dimension	Outlet 2 Diameter Dimension	Outlet 3 Diameter Dimension
Pipe Diameter Measure Code	Hydrant Size Unit Measure Code	Valve Style Code
Inlet Diameter Dimension		

PERFORMANCE:

Disposition Code	Flow Unit Measure Code	Hydrant Required Fire Flow Rate
Maximum Pressure Rate	Narrative Text	Pressure Unit Measure Code
Static Pressure Head Rate	Water Residual Pressure Rate	Water Source Code

OPERATION/MAINTENANCE:

Acquired Date	Flow Test Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water fitting point** OBJECT TYPE: **Point**

DEFINITION: **A fitting is an item used to connect, cap, plug or otherwise alter a pipe.**

FEATURE ATTRIBUTES FOR: Water fitting point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	Water Line Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Water Fitting Type Code	Dimension Unit Measure Code	Pipe Diameter Measure Code
Serial Number Code	Model Number Code	Material Composition Code
Ground Elevation Dimension	Fitting Width Dimension	Fitting Length Dimension
Fitting Dimension	Elevation Unit Measure Code	Dimension Unit Measure Code
Diameter Unit Measure Code	Fitting Diameter Dimension	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water hydrant point** OBJECT TYPE: **Point**

DEFINITION: **An apparatus which dispenses fluids.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water hydrant point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	Water Line Identifier	Water Valve Location Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Valve Style Code	Size Unit Measure Code	Pipe Diameter Measure Code
Outlet 3 Diameter Dimension	Outlet 2 Diameter Dimension	Outlet 1 Diameter Dimension
Model Number Code	Measure Type Code	Inlet Diameter Dimension
Hydrant Type Code	Hydrant Dimension	Ground Elevation Dimension
Elevation Unit Measure Code	Diameter Unit Measure Code	Hydrant Design Discriminator

PERFORMANCE:

Disposition Code	Flow Unit Measure Code	Hydrant Required Fire Flow Rate
Maximum Pressure Rate	Narrative Text	Pressure Unit Measure Code
Residual Pressure Rate	Static Pressure Head Rate	Water Source Code

OPERATION/MAINTENANCE:

Acquired Date	Flow Test Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water intake point** OBJECT TYPE: **Point**

DEFINITION: **The location where water is allowed into the water distribution system.**

FEATURE ATTRIBUTES FOR: Water intake point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Water Source Type Code	Perimeter Unit Measure Code	Perimeter Dimension
Area Size Unit Measure Code	Water Source Area	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water junction point** OBJECT TYPE: **Point**

DEFINITION: **A box or small vault (usually concrete, brick, or cast iron) located below grade with above grade access where pipes intersect. The manhole also houses associated fittings, valves, meters, etc.**

FEATURE ATTRIBUTES FOR: Water junction point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Manhole Type Code	Rim Dimension	Manhole Number of Valves Quantity
Manhole Number of Pipes Quantity	Model Number Code	Exterior Width Dimension
Length Dimension	Manhole Diameter Dimension	Material Composition Code
Invert Elevation Dimension	Ground Elevation Dimension	Elevation Unit Measure Code
Drain Type Code	Dimension Unit Measure Code	Manhole Air Relief Valve Code

PERFORMANCE:

Disposition Code	Narrative Text	Water Junction Use Code

OPERATION/MAINTENANCE:

User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water line** OBJECT TYPE: **String/Chain**

DEFINITION: **A pipe used to carry a substance from location to location (main line, service line, vent line, etc).**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water line

DATABASE INTEGRATION:

Facility Identifier	From X Coordinate	From Y Coordinate
From Z Coordinate	Graphic Feature Link	Metadata Identifier
To X Coordinate	To Y Coordinate	To Z Coordinate
Unique Feature Identifier	Water Pumping Station Identifier	Water Source Identifier
Water Tank Identifier	Water Treatment Plant Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Model Number Code	Dimension Unit Measure Code	Elevation Unit Measure Code
Ground Elevation 1 Dimension	Ground Elevation 2 Dimension	Invert Elevation Node 1 Dimension
Pipe Cathodic Protection Code	Material Composition Code	Line Location Type Code
Length Dimension	Pipe Diameter Measure Code	Bottom Slope Percent
Slope Measure Unit Code	Marker Tape Code	Water Line Type Code
Invert Elevation Node 2 Dimension		

PERFORMANCE:

Disposition Code	Maximum Pressure Rate	Narrative Text
Normal Pressure Rate	Pressure Unit Measure Code	Water Line Use Code
Water Source Code		

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water marker point** OBJECT TYPE: **Point**

DEFINITION: **A sign, concrete monument, etc. installed either directly above or immediately adjacent to underground lines, bends, fittings, etc.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water marker point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

General Markers Type Code	Soil Consistency Code	Sign Width Dimension
Sign Text	Sign Material Composition Code	Sign Height Dimension
Pole Material Code	Pole Height Dimension	Pole Depth Dimension
Model Number Code	Dimension Unit Measure Code	

PERFORMANCE:

Disposition Code	Narrative Text	Rock Condition Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water meter point** OBJECT TYPE: **Point**

DEFINITION: **A device installed in a line for measuring the quantity and or rate of water flowing to a facility or through a section of line.**

FEATURE ATTRIBUTES FOR: Water meter point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	Water Junction Identifier	Water Line Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Water Meter Type Code	Service Code	Size Unit Measure Code
Pipe Diameter Measure Code	Serial Number Code	Model Number Code
Meter Dimension	Pump Station Type Code	Ground Elevation Dimension
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Narrative Text	Water Source Code

OPERATION/MAINTENANCE:

Acquired Date	Customer Name	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water pressure reducing station point** OBJECT TYPE: **Point**

DEFINITION: **A station consists of a box/pit containing one or more pressure regulators and appurtenant shutoff valves and fittings.**

FEATURE ATTRIBUTES FOR: Water pressure reducing station point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Unique Feature Identifier
Water Pumping Station Identifier	Water Regulator Reducer Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Station Dimension	Model Number Code	Ground Elevation Dimension
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Inlet Pressure Rate	Narrative Text
Normal Inline Pressure Rate	Outlet Maximum Pressure Rate	Pressure Unit Measure Code
Structure Condition Code	Water Source Code	

OPERATION/MAINTENANCE:

Acquired Date	Constructed Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water pump point** OBJECT TYPE: **Point**

DEFINITION: **A mechanical device that draws material into itself through an entrance port and forces the material out through an exhaust port.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water pump point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Unique Feature Identifier
Water Pumping Station Identifier	Water Source Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Water Pump Type Code	Total Dynamic Head Unit Measure Code	Serial Number Code
Centerline Dimension	Model Number Code	Ground Elevation Dimension
Elevation Unit Measure Code	Cooling Method Code	

PERFORMANCE:

Actual Pump Capacity Volume	Disposition Code	Narrative Text
Power Generated Quantity	Power Required Code	Pump Capacity Rate
Rate Capacity Unit Measure Code	Total Dynamic Head Rate	Water Pump Use Code

OPERATION/MAINTENANCE:

Acquired Date	Priming Method Code	Priming Requirement Indicator Code
User Flag Text		

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water pump station site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **A building in which one or more pumps operate to supply material flowing at adequate pressure to or from a distribution system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water pump station site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Tributary Utility Subsystem Code	Unique Feature Identifier	Water Treatment Plant Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Perimeter Unit Measure Code	Perimeter Dimension	Area Size Unit Measure Code
Station Area	Station Width Dimension	Water Pumping Station Type Code
Length Dimension	Station Dimension	Centerline Dimension
Nodal Elevation Dimension	Number of Pumps Quantity	High Water Dimension
Ground Elevation Dimension	Elevation Unit Measure Code	Dimension Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text	Output Capacity Volume
Rate Capacity Unit Measure Code	Structure Condition Code	Volume Unit Measure Code
Water Source Code	Water Source Name Code	Wet Well Capacity Volume

OPERATION/MAINTENANCE:

Acquired Date	Tank Alarm Dimension	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water rectifier point** OBJECT TYPE: **Point**

DEFINITION: **A device that changes alternating current to direct current for an impressed current cathodic protection system on an element of the distribution system.**

FEATURE ATTRIBUTES FOR: Water rectifier point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Internal Meter Code	Enclosure Type Code	Cooling Method Code

PERFORMANCE:

Current Output Amount	Current Unit Measure Code	Narrative Text
Number of Phases Quantity	Phase Letter Code	Voltage Input Code
Voltage Output Code		

OPERATION/MAINTENANCE:

User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water regulator reducer point** OBJECT TYPE: **Point**

DEFINITION: **A pressure regulator automatically reduces the pressure on the downstream side of the valve to a preset magnitude.**

FEATURE ATTRIBUTES FOR: Water regulator reducer point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Pipe Inlet Identifier	Pipe Outflow Identifier	Unique Feature Identifier
Water Junction Identifier	Water Pumping Station Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Water Regulator Reducer Type Code	Pipe Diameter Measure Code	Serial Number Code
Regulator Dimension	Model Number Code	Ground Elevation Dimension
Elevation Unit Measure Code		

PERFORMANCE:

Disposition Code	Inlet Pressure Rate	Narrative Text
Outlet Maximum Pressure Rate	Pressure Required Rate	Pressure Unit Measure Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water reservoir area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **A body of water which supplies water to a water distribution system.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water reservoir area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Permit Number Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Material Composition Code	Area Size Unit Measure Code	Dimension Unit Measure Code
Elevation Unit Measure Code	Ground Elevation Dimension	Normal Head Dimension
Head Units Unit Measure Code	Invert Elevation Dimension	Elevation Level For 1st Pump/Valve Dimension
Interior Tank Area	Elevation Level Pumps Off Dimension	Top Elevation Dimension
Model Number Code	Perimeter Dimension	Perimeter Unit Measure Code
Serial Number Code	Tank Diameter Dimension	Length Dimension
Tank Style Code	Tank Width Dimension	Elevation Level For 2nd Pump/Valve Dimension

PERFORMANCE:

Capacity Volume	Disposition Code	High Pressure Rate
Low Pressure Rate	Narrative Text	Normal Pressure Rate
Overflow Dimension	Pressure Unit Measure Code	Volume Unit Measure Code
Water Tank Use Code		

OPERATION/MAINTENANCE:

Acquired Date	Alarm Low Level Dimension	Alarm Low Level Dimension
Altitude Valve Code	Pressure Alarm Level Dimension	User Flag Text

---

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water source site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **The point from which the utility is supplied a product for processing and distribution.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water source site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Water Source Type Code	Perimeter Unit Measure Code	Perimeter Dimension
Area Size Unit Measure Code	Water Source Area	

PERFORMANCE:

Disposition Code	Narrative Text

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water system flow direction arrow** OBJECT TYPE: **Arrow**

DEFINITION: **A flow direction arrow indicates the direction of flow through a line, valve, or component.**

FEATURE ATTRIBUTES FOR: Water system flow direction arrow

DATABASE INTEGRATION:

PHYSICAL PROPERTIES:

PERFORMANCE:

OPERATION/MAINTENANCE:

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water tank site** OBJECT TYPE: **Point/Polygon**

DEFINITION: **An above or below grade receptacle or chamber for holding components on a temporary basis prior to transfer or use.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water tank site

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Permit Number Identifier	Unique Feature Identifier	X Coordinate
Y Coordinate	Z Coordinate	

PHYSICAL PROPERTIES:

Material Composition Code	Area Size Unit Measure Code	Dimension Unit Measure Code
Elevation Unit Measure Code	Ground Elevation Dimension	Normal Head Dimension
Head Units Unit Measure Code	Invert Elevation Dimension	Elevation Level For 1st Pump/Valve Dimension
Interior Tank Area	Elevation Level Pumps Off Dimension	Top Elevation Dimension
Model Number Code	Perimeter Dimension	Perimeter Unit Measure Code
Serial Number Code	Tank Diameter Dimension	Length Dimension
Tank Style Code	Tank Width Dimension	Elevation Level For 2nd Pump/Valve Dimension

PERFORMANCE:

Capacity Volume	Disposition Code	High Pressure Rate
Low Pressure Rate	Narrative Text	Normal Pressure Rate
Overflow Dimension	Pressure Unit Measure Code	Volume Unit Measure Code
Water Tank Use Code		

OPERATION/MAINTENANCE:

Acquired Date	Alarm Low Level Dimension	Alarm Low Level Dimension
Altitude Valve Code	Pressure Alarm Level Dimension	User Flag Text

---

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water treatment plant area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **A water treatment plant and all appurtenant equipment, buildings, and facilities relating to water treatment.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water treatment plant area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	Water Source Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Water Treatment Plant Type Code	Plant Width Dimension	Length Dimension
Plant Dimension	Perimeter Unit Measure Code	Perimeter Dimension
Number of Pumps Quantity	Ground Elevation Dimension	Elevation Unit Measure Code
Dimension Unit Measure Code	Bypass Code	Area Size Unit Measure Code
Plant Area		

PERFORMANCE:

Actual Plant Flow Volume	Disposition Code	Flow Unit Measure Code
Narrative Text	Rated Flow Capacity Rate	Structure Condition Code
Water Source Code		

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water treatment unit area** OBJECT TYPE: **G/GT Polygon**

DEFINITION: **A water separation pond or other pool designed to allow solid material decomposition.**

Utilities (Feature Types by Class)

FEATURE ATTRIBUTES FOR: Water treatment unit area

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Name Code	Unique Feature Identifier	Water Source Identifier
X Coordinate	Y Coordinate	Z Coordinate

PHYSICAL PROPERTIES:

Water Treatment Plant Type Code	Plant Width Dimension	Length Dimension
Plant Dimension	Perimeter Unit Measure Code	Perimeter Dimension
Number of Pumps Quantity	Ground Elevation Dimension	Elevation Unit Measure Code
Dimension Unit Measure Code	Bypass Code	Area Size Unit Measure Code
Plant Area		

PERFORMANCE:

Actual Plant Flow Volume	Disposition Code	Flow Unit Measure Code
Narrative Text	Rated Flow Capacity Rate	Structure Condition Code
Water Source Code		

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water valve point** OBJECT TYPE: **Point**

DEFINITION: **A fitting or device used for shutting or throttling flow through a line.**

FEATURE ATTRIBUTES FOR: Water valve point

DATABASE INTEGRATION:

Branch Name Code	Facility Identifier	Graphic Feature Link
Metadata Identifier	Unique Feature Identifier	Water Junction Identifier
Water Line Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

Valve Style Code	Size Dimension	Valve Dimension
Size Unit Measure Code	Ground Elevation Dimension	Elevation Unit Measure Code

PERFORMANCE:

Disposition Code	Narrative Text	Water Valve Location Use Code

OPERATION/MAINTENANCE:

Acquired Date	User Flag Text

Utilities (Feature Types by Class)

FEATURE CLASS: **Water System**

FEATURE TYPE: **Water vent point** OBJECT TYPE: **Point**

DEFINITION: **A valve installed in a line to either release air trapped in the line, and/or allow air into a line to relieve a vacuum condition.**

FEATURE ATTRIBUTES FOR: Water vent point

DATABASE INTEGRATION:

Facility Identifier	Graphic Feature Link	Metadata Identifier
Unique Feature Identifier	X Coordinate	Y Coordinate
Z Coordinate		

PHYSICAL PROPERTIES:

PERFORMANCE:

Narrative Text

OPERATION/MAINTENANCE:

User Flag Text