ADDENDUM 1 FOR
REQUEST FOR QUALIFICATIONS/PROPOSALS

GIS Data Readiness and Migration Strategic Plan
Issue Date: August 26, 2022

This addendum addresses Q/A received to date:

1. **May resumes be included as an appendix and excluded from the 10 double-sided page limit?**
   - Yes, resumes may be included as an appendix and will not be part of the 10 double-sided page limit.

2. **What is OWASA's project budget?**
   - The OWASA CIP has allocated $60,000 for the GIS Data Readiness and Migration Strategic Plan. Note: This is for the RFP only, any future migration work would be budgeted for separately.

3. **The RFQ/RFP notes there are Data Reviewer quality checks for water, sewer and reclaimed water. Can you provide details on the checks that have been implemented?**
   - Please see the attached Appendix 1: OWASA Data Reviewer Checks with screenshots from Data Reviewer of the various checks for each system.

4. **What is the name of the consultant that created the ArcGIS Enterprise Strategic Implementation Plan?**
   - Avineon, Inc.

5. **Does OWASA have a timeline for deprecating ArcMap in favor of ArcGIS Pro?**
   - We are hoping to be transitioned in 2024 (next fiscal year) using Pro and Enterprise

6. **The Scope of Services in the RFQ/RFP mentions "inform budgetary amount for future GIS migration implementation by February 2023". Is this cost estimate separate from the current RFQ/RFP?**
   - Yes, the cost estimate is separate from the RFP and would be used to inform next fiscal year budget (FY23/24) which are due in February 2023. This would be for future work beyond the scope of this RFQ/RFP.

7. **The Scope of Services in the RFQ/RFP mentions "install Enterprise in multi-machine production environment". Is the goal to have ArcGIS Server on 1 machine, with multiple machines accessing Enterprise?**
   - The current environment is a single machine deployment with on server that has ArcGIS Server, Cityworks, and Image Server installed. The goal is have at least 2 servers with the second machine hosting Portal and DataStore. We are open other suggestions if another

configuration is more beneficial.

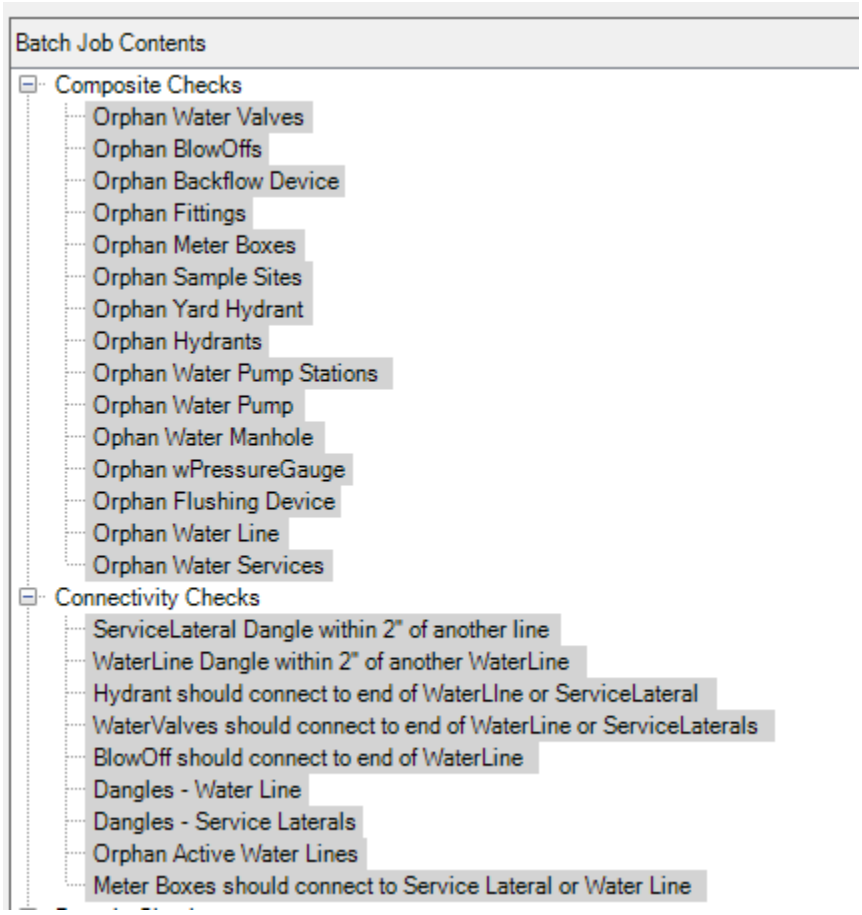
8. **Can you provide a complete list of third-party systems and business processes that will be integrated into the GIS?**
   - See the attached Appendix 2: Third Party and Business Processes Integrated with GIS

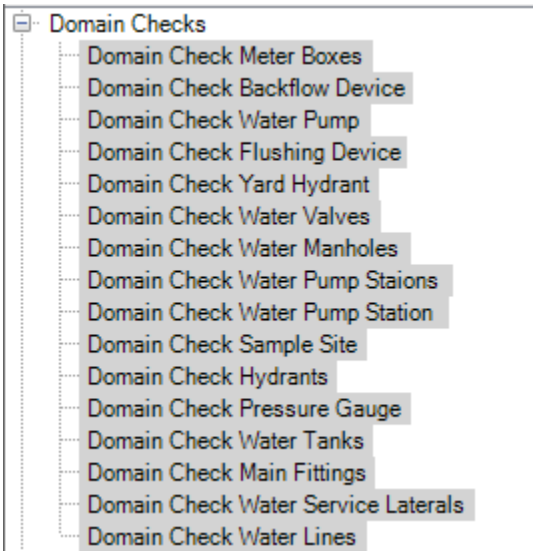
9. **Can we assume there are no other feature classes to migrate than those listed in Tables 1-3?**
   - The Tables contain the primary features that participate in the geometric networks. There are a few additional feature classes in the feature datasets. These are listed in Appendix 3: Feature Datasets and Feature Classes.

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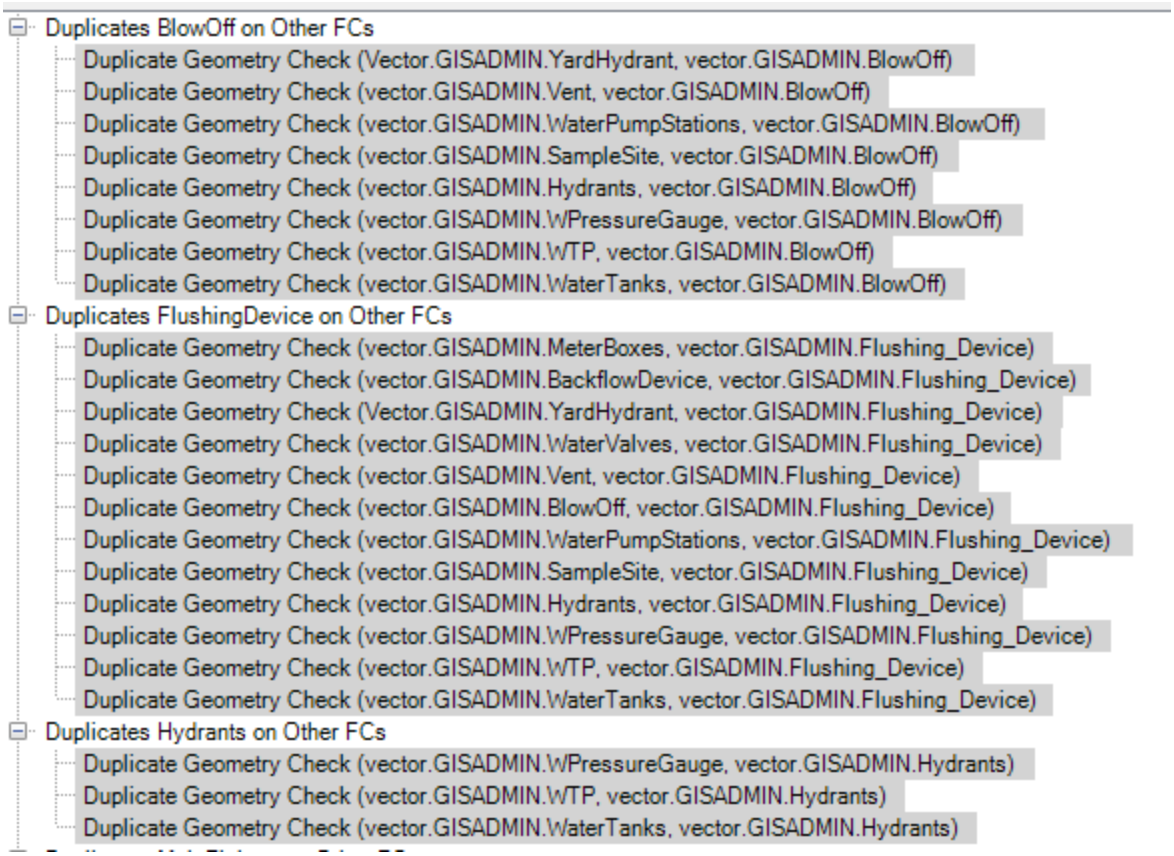
Appendix 1: OWASA Data Reviewer Checks

1. **Water Checks:**






DuplicatePoint Checks Inside Same FC
Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.MainFittings)
Duplicate Geometry Check (vector.GISADMIN.WaterPump, vector.GISADMIN.WaterPump)
Duplicate Geometry Check (vector.GISADMIN.Flushing_Device, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.MeterBoxes, vector.GISADMIN.MeterBoxes)
Duplicate Geometry Check (vector.GISADMIN.BackflowDevice, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (Yard Hydrant, Yard Hydrant)
Duplicate Geometry Check (vector.GISADMIN.WaterValves, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.BlowOff, vector.GISADMIN.BlowOff)
Duplicate Geometry Check (vector.GISADMIN.WaterPumpStations, vector.GISADMIN.WaterPumpStations)
Duplicate Geometry Check (vector.GISADMIN.SampleSite, vector.GISADMIN.SampleSite)
Duplicate Geometry Check (vector.GISADMIN.Hydrants, vector.GISADMIN.Hydrants)
Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.WPressureGauge)
Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.WTP)
Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.WaterTanks)
Duplicate Geometry Check (vector.GISADMIN.WaterManholes, vector.GISADMIN.WaterManholes)
Duplicate Geometry Check (Water Valves, Water Valves)
Duplicates BackflowDevice on Other FCs
Duplicate Geometry Check (Vector.GISADMIN.YardHydrant, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.WaterValves, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.Vent, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.BlowOff, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.WaterPumpStations, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.SampleSite, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.Hydrants, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.BackflowDevice)
Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.BackflowDevice)
Duplicates BlowOff on Other FCs


Duplicates BlowOff on Other FCs
Duplicate Geometry Check (Vector.GISADMIN.YardHydrant, vector.GISADMIN.BlowOff)
Duplicate Geometry Check (vector.GISADMIN.Vent, vector.GISADMIN.BlowOff)
Duplicate Geometry Check (vector.GISADMIN.WaterPumpStations, vector.GISADMIN.BlowOff)
Duplicate Geometry Check (vector.GISADMIN.SampleSite, vector.GISADMIN.BlowOff)
Duplicate Geometry Check (vector.GISADMIN.Hydrants, vector.GISADMIN.BlowOff)
Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.BlowOff)
Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.BlowOff)
Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.BlowOff)
Duplicates FlushingDevice on Other FCs
Duplicate Geometry Check (vector.GISADMIN.MeterBoxes, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.BackflowDevice, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (Vector.GISADMIN.YardHydrant, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.WaterValves, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.Vent, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.BlowOff, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.WaterPumpStations, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.SampleSite, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.Hydrants, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.Flushing_Device)
Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.Flushing_Device)
Duplicates Hydrants on Other FCs
Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.Hydrants)
Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.Hydrants)
Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.Hydrants)

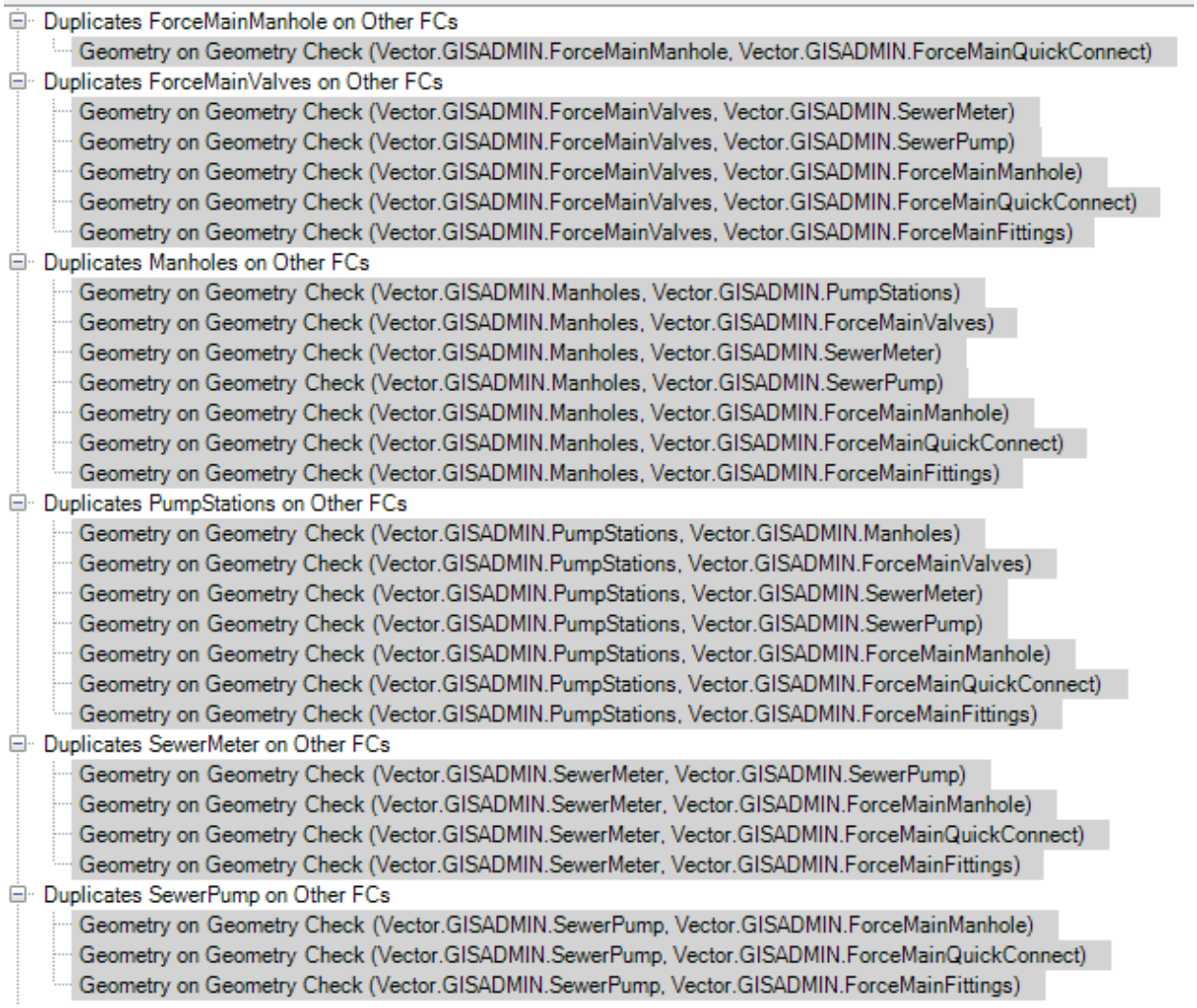
- Duplicates MainFittings on Other FCs
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.Flushing_Device)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.BackflowDevice)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, Vector.GISADMIN.YardHydrant)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.WaterValves)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.Vent)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.BlowOff)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.WaterPumpStations)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.SampleSite)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.Hydrants)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.WPressureGauge)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.WTP)
  - Duplicate Geometry Check (vector.GISADMIN.MainFittings, vector.GISADMIN.WaterTanks)
- Duplicates MeterBoxes on Other FCs
  - Duplicate Geometry Check (vector.GISADMIN.BackflowDevice, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (Vector.GISADMIN.YardHydrant, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.WaterValves, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.Vent, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.BlowOff, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.WaterPumpStations, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.SampleSite, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.Hydrants, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.MeterBoxes)
  - Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.MeterBoxes)

- Duplicates SampleSite on Other FCs
  - Duplicate Geometry Check (vector.GISADMIN.Hydrants, vector.GISADMIN.SampleSite)
  - Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.SampleSite)
  - Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.SampleSite)
  - Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.SampleSite)
- Duplicates WaterPump on Other FCs
  - Duplicate Geometry Check (vector.GISADMIN.Flushing_Device, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.MeterBoxes, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.BackflowDevice, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (Vector.GISADMIN.YardHydrant, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.WaterValves, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.BlowOff, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.Vent, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.WaterPumpStations, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.SampleSite, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.Hydrants, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.WaterPump)
  - Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.WaterPump)


Duplicates WaterValves on Other FCs
Duplicate Geometry Check (Vector.GISADMIN.YardHydrant, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.Vent, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.BlowOff, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.WaterPumpStations, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.SampleSite, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.Hydrants, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.WPressureGauge, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.WaterValves)
Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.WaterValves)
Duplicates WPressureGuage on Other FCs
Duplicate Geometry Check (vector.GISADMIN.WTP, vector.GISADMIN.WPressureGauge)
Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.WPressureGauge)
Duplicates WTP on Other FCs
Duplicate Geometry Check (vector.GISADMIN.WaterTanks, vector.GISADMIN.WTP)
Execute SQL Checks
Check Post 1990 Fittings with Cast or Galv Material
Check Post 1990 Water Lines with CI, AC, or Galv
Check Post 1990 Water Services with CI, Galv, or AC
Check Pre 1965 Water Lines with DI
Check Pre 1970 Water Lines with PVC
Geometry Checks
Multipart Line Check (vector.GISADMIN.WaterServiceLaterals)
Multipart Line Check (vector.GISADMIN.WaterLines)
WaterLine Cutback less than 25 degrees
ServiceLInes cutback less than 25 degrees
ServiceLateral Vertices less than 2" apart
WaterLine Vertices less than 2" apart
Overlapping Water Laterals
Overlapping Lines Checks
WaterLines Overlaps WaterLines
WaterLines Within WaterLines
WaterLines Overlaps ServiceLaterals
Valency Checks
Fittings Should Connect to 2 WaterLines
Fittings Should Connect to 3 WaterLines
Fittings Should Connect to 4 WaterLines
Cross not Connected to at Least 3 Pipes

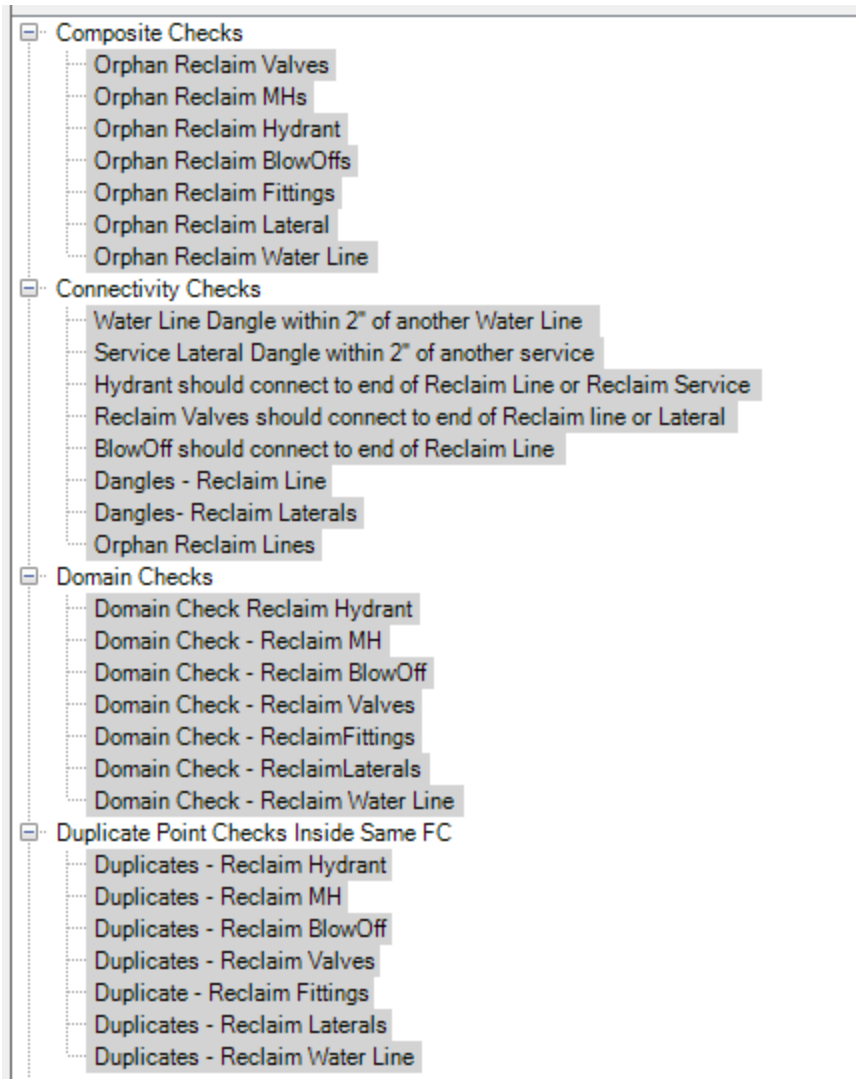
2. Sewer Checks:




Duplicates ForceMainManhole on Other FCs
Geometry on Geometry Check (Vector.GISADMIN.ForceMainManhole, Vector.GISADMIN.ForceMainQuickConnect)
Duplicates ForceMainValves on Other FCs
Geometry on Geometry Check (Vector.GISADMIN.ForceMainValves, Vector.GISADMIN.SewerMeter)
Geometry on Geometry Check (Vector.GISADMIN.ForceMainValves, Vector.GISADMIN.SewerPump)
Geometry on Geometry Check (Vector.GISADMIN.ForceMainValves, Vector.GISADMIN.ForceMainManhole)
Geometry on Geometry Check (Vector.GISADMIN.ForceMainValves, Vector.GISADMIN.ForceMainQuickConnect)
Geometry on Geometry Check (Vector.GISADMIN.ForceMainValves, Vector.GISADMIN.ForceMainFittings)
Duplicates Manholes on Other FCs
Geometry on Geometry Check (Vector.GISADMIN.Manholes, Vector.GISADMIN.PumpStations)
Geometry on Geometry Check (Vector.GISADMIN.Manholes, Vector.GISADMIN.ForceMainValves)
Geometry on Geometry Check (Vector.GISADMIN.Manholes, Vector.GISADMIN.SewerMeter)
Geometry on Geometry Check (Vector.GISADMIN.Manholes, Vector.GISADMIN.SewerPump)
Geometry on Geometry Check (Vector.GISADMIN.Manholes, Vector.GISADMIN.ForceMainManhole)
Geometry on Geometry Check (Vector.GISADMIN.Manholes, Vector.GISADMIN.ForceMainQuickConnect)
Geometry on Geometry Check (Vector.GISADMIN.Manholes, Vector.GISADMIN.ForceMainFittings)
Duplicates PumpStations on Other FCs
Geometry on Geometry Check (Vector.GISADMIN.PumpStations, Vector.GISADMIN.Manholes)
Geometry on Geometry Check (Vector.GISADMIN.PumpStations, Vector.GISADMIN.ForceMainValves)
Geometry on Geometry Check (Vector.GISADMIN.PumpStations, Vector.GISADMIN.SewerMeter)
Geometry on Geometry Check (Vector.GISADMIN.PumpStations, Vector.GISADMIN.SewerPump)
Geometry on Geometry Check (Vector.GISADMIN.PumpStations, Vector.GISADMIN.ForceMainManhole)
Geometry on Geometry Check (Vector.GISADMIN.PumpStations, Vector.GISADMIN.ForceMainQuickConnect)
Geometry on Geometry Check (Vector.GISADMIN.PumpStations, Vector.GISADMIN.ForceMainFittings)
Duplicates SewerMeter on Other FCs
Geometry on Geometry Check (Vector.GISADMIN.SewerMeter, Vector.GISADMIN.SewerPump)
Geometry on Geometry Check (Vector.GISADMIN.SewerMeter, Vector.GISADMIN.ForceMainManhole)
Geometry on Geometry Check (Vector.GISADMIN.SewerMeter, Vector.GISADMIN.ForceMainQuickConnect)
Geometry on Geometry Check (Vector.GISADMIN.SewerMeter, Vector.GISADMIN.ForceMainFittings)
Duplicates SewerPump on Other FCs
Geometry on Geometry Check (Vector.GISADMIN.SewerPump, Vector.GISADMIN.ForceMainManhole)
Geometry on Geometry Check (Vector.GISADMIN.SewerPump, Vector.GISADMIN.ForceMainQuickConnect)
Geometry on Geometry Check (Vector.GISADMIN.SewerPump, Vector.GISADMIN.ForceMainFittings)



3. Reclaim Water Checks


Composite Checks
Orphan Reclaim Valves
Orphan Reclaim MHs
Orphan Reclaim Hydrant
Orphan Reclaim BlowOffs
Orphan Reclaim Fittings
Orphan Reclaim Lateral
Orphan Reclaim Water Line
Connectivity Checks
Water Line Dangle within 2" of another Water Line
Service Lateral Dangle within 2" of another service
Hydrant should connect to end of Reclaim Line or Reclaim Service
Reclaim Valves should connect to end of Reclaim line or Lateral
BlowOff should connect to end of Reclaim Line
Dangles - Reclaim Line
Dangles- Reclaim Laterals
Orphan Reclaim Lines
Domain Checks
Domain Check Reclaim Hydrant
Domain Check - Reclaim MH
Domain Check - Reclaim BlowOff
Domain Check - Reclaim Valves
Domain Check - ReclaimFittings
Domain Check - ReclaimLaterals
Domain Check - Reclaim Water Line
Duplicate Point Checks Inside Same FC
Duplicates - Reclaim Hydrant
Duplicates - Reclaim MH
Duplicates - Reclaim BlowOff
Duplicates - Reclaim Valves
Duplicate - Reclaim Fittings
Duplicates - Reclaim Laterals
Duplicates - Reclaim Water Line

- Duplicate Reclaim Blowoff and Other Point FCs
  - Duplicate Geometry - Reclaim Blowoff and Reclaim Valves
  - Duplicate Geometry - Reclaim BlowOff and Reclaim Fittings
- Duplicate Reclaim Hydrants on Other Point FCs
  - Duplicate Geometry - Reclaim Hydrant and Reclaim MH
  - Duplicate Geometry - Reclaim Hydrant and Reclaim Blowoff
  - Duplicate Geometry - Reclaim Hydrant and Reclaim Valves
  - Duplicate Geometry - Reclaim Hydrant and Reclaim Fittings
- Duplicate Reclaim MHs on other Point FCs
  - Duplicate Geometry - Reclaim MH and Reclaim Blowoff
  - Duplicate Geometry - Reclaim MH and Reclaim Valves
  - Duplicate Geometry - Reclaim MH and Reclaim Fittings
- Duplicate Reclaim Valve and Other Point FCs
  - Duplicate Geometry - Reclaim Valves and Reclaim Fittings
- Geometry Checks
  - Mulitpart Line Check - Reclaim Lines
  - Mulitpart Line Check - Reclaim Laterals
  - Reclaim Line Cutback Less than 25 degrees
  - Reclaim Lateral Cutback Less than 25 degrees
  - Reclaim Laterals Less than 2" apart
  - Reclaim Lines Less Than 2" Apart
  - Overlapping Reclaim Laterals
  - Overlapping Reclaim Water Lines
  - Reclaim Lines Within Reclaim Lines
  - Reclaim Laterals Within Reclaim Laterals
  - Reclaim Line Overlaps Reclaim Laterals
- Valency Checks
  - Bends Connect to 2 Reclaim Lines
  - Fittings - Tapping sleeve, Tee and Saddles Should connect to 3 Reclaim Lines
  - Cross Fitting Should Connect to 4 Reclaim Lines
  - Reclaim Cross not Connected to at Least 3 Pipes

Appendix 2: Third Party and Business Processes Integrated with GIS

1. Cityworks, CMMS system, allows work orders and inspections to be tied to GIS assets
2. WinCan – sewer CCTV software integrates with sewer mains
3. Wachs valve inspection software – inspections stored in Vitals Access Database and latest inspection information is added to the valve layer in the GIS using Python script
4. Cogsdale, customer service database, information is linked to the meter boxes in the GIS. A SQL view extracts data from Cogsdale and a nightly python script runs to update meter box fields in the GIS. Monthly water and sewer consumption data is also tied to the meter boxes.

   Note: OWASA has an RFP out now to procure a new customer information system (CIS) and utility billing system
5. Water Prioritization Model – custom python script created by consultant to prioritize water main replacement projects
6. AMI – OWASA uses Mueller Systems Advanced Metering Infrastructure (AMI). Right now, the AMI data is not tied to the GIS but the meter box FacilityID is the unique number for each meter in the AMI system.
7. Numerous Reporting Services with SQL queries that include data from the GIS SDE database. For example, one report called mowing progress includes the length of gravity sewer mains that were mowed by querying the pipe segment lengths stored in the GIS database.

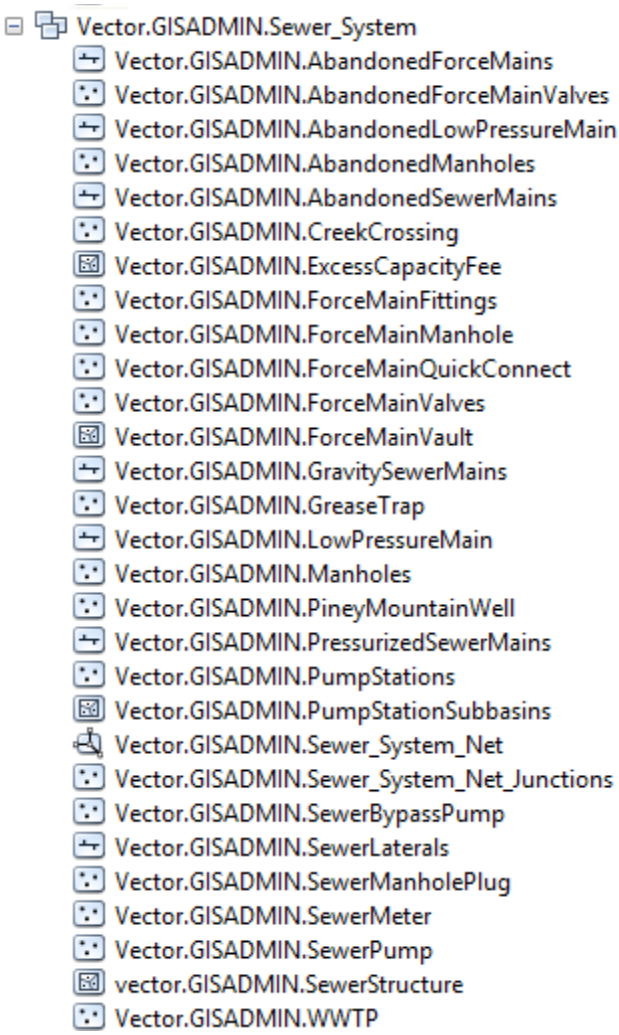
Future GIS Integrations

8. Currently a new CMMS System Assessment for vertical assets for the WWTP and WTP plants is underway and the selected software will most likely integrate with the GIS. This consultant-led effort just started in August 2022.
9. The Lead and Copper Rules require that we maintain a public map of our water service line inventory that displays OWASA and customer-side material types. Current LCR Data Management software options are being reviewed beginning in August 2022. The meter boxes will contain the customer and OWASA-side service lateral material and integrate with the software selected.

Appendix 3: Feature Datasets and Feature Classes

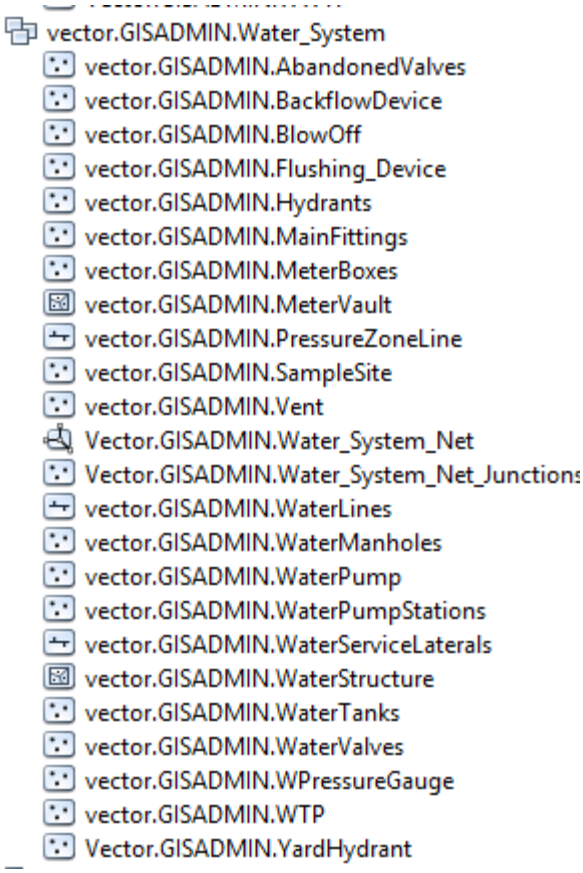
1. **Sewer System Feature Dataset**

Feature Dataset: Sewer_System			
Feature Class Name	**Feature Class Type**	**Number of Features**	**Participates in Geometric Network?**
Abandoned Force Mains	Line	53	No
Abandoned Force Mains Valves	Point	0	No
Abandoned Low Pressure Main	Line	3	Yes
Abandoned Manholes	Point	360	No
Abandoned Sewer Mains	Line	534	No
Creek Crossing	Point	267	No
Excess Capacity Fee	Polygon	1	No
Force Main Fittings	Point	380	Yes
Force Main Manhole	Point	16	Yes
Force Main Quick Connect	Point	25	Yes
Force Main Valves	Point	215	Yes
Force Main Vault	Polygon	46	No
Gravity Sewer Mains	Line	11,310	Yes
Grease Trap	Point	450	Yes
Low Pressure Main	Line	138	Yes
Manholes	Point	11,209	Yes
Piney Mountain Well	Point	1	Yes
Pressurized Sewer Mains	Line	550	Yes
Pump Stations	Point	28	Yes
Pump Station Subbasins	Polygon	22	No
Sewer_System_Net_Junctions	Point	1,386	Yes
Sewer Bypass Pump	Point	6	No
Sewer Laterals	Line	219	Yes
Sewe Manhole Plug	Point	3	No
Sewer Meter	Point	9	yes
Sewer Pump	Point	25	Yes
Sewer Structure	Polygon	3	No
WWTP	Point	1	Yes


Vector.GISADMIN.Sewer_System
Vector.GISADMIN.AbandonedForceMains
Vector.GISADMIN.AbandonedForceMainValves
Vector.GISADMIN.AbandonedLowPressureMain
Vector.GISADMIN.AbandonedManholes
Vector.GISADMIN.AbandonedSewerMains
Vector.GISADMIN.CreekCrossing
Vector.GISADMIN.ExcessCapacityFee
Vector.GISADMIN.ForceMainFittings
Vector.GISADMIN.ForceMainManhole
Vector.GISADMIN.ForceMainQuickConnect
Vector.GISADMIN.ForceMainValves
Vector.GISADMIN.ForceMainVault
Vector.GISADMIN.GravitySewerMains
Vector.GISADMIN.GreaseTrap
Vector.GISADMIN.LowPressureMain
Vector.GISADMIN.Manholes
Vector.GISADMIN.PineyMountainWell
Vector.GISADMIN.PressurizedSewerMains
Vector.GISADMIN.PumpStations
Vector.GISADMIN.PumpStationSubbasins
Vector.GISADMIN.Sewer_System_Net
Vector.GISADMIN.Sewer_System_Net_Junctions
Vector.GISADMIN.SewerBypassPump
Vector.GISADMIN.SewerLaterals
Vector.GISADMIN.SewerManholePlug
Vector.GISADMIN.SewerMeter
Vector.GISADMIN.SewerPump
vector.GISADMIN.SewerStructure
Vector.GISADMIN.WWTP

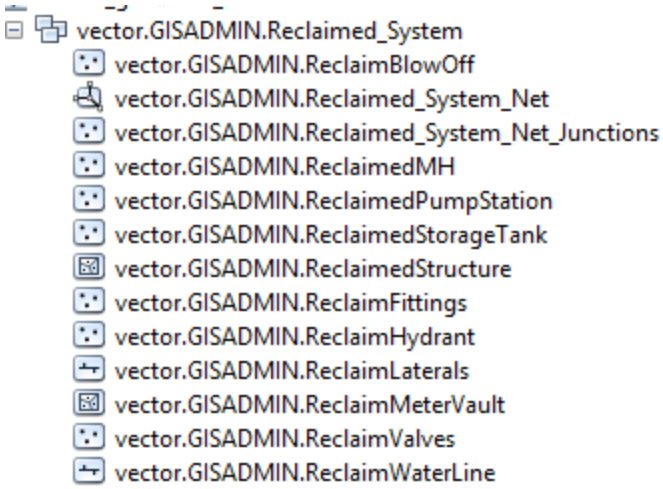
2. Water System Feature Dataset

Feature Dataset: Water_System			
Feature Class Name	**Feature Class Type**	**Number of Features**	**Participates in Geometric Network?**
Abandoned Valves	Point	777	No
Backflow Device	Point	2,840	Yes
BlowOff	Point	1,232	Yes
Flushing Device	Point	12	Yes
Hydrants	Point	2,469	Yes
Main Fittings	Point	37,289	Yes
Meter Boxes	Point	22,855	Yes
Meter Vault	Polygon	959	No
Pressure Zone Line	Line	1	No
Sample Site	Point	51	Yes
Vent	Point	1	Yes
jWater_System_Net_Junctions	Point	8,537	Yes
Water Lines	Line	50,927	Yes
Water Manholes	Point	96	Yes
Water Pump	Point	9	Yes
Water Pump Stations	Point	8	Yes
Water Service Laterals	Line	37,886	Yes
Water Structure	Polygon	3	No
Water Tanks	Point	5	Yes
Water Valves	Point	13,700	Yes
Water Pressure Gauge	Point	10	Yes
WTP	Point	1	Yes
Yard Hydrant	Point	20	Yes



3. Reclaim Water Feature Dataset

Feature Dataset: Reclaimed_System			
Feature Class Name	**Feature Class Type**	**Number of Features**	**Participates in Geometric Network?**
Reclaim Blow Off	Point	22	Yes
Reclaim_System_Net_Junctions	Point	102	Yes
Reclaim Manholes	Point	0	Yes
Reclaimed Pump Station	Point	0	Yes
Reclaimed Storage Tank	Point	0	No
Reclaimed Structure	Polgyon	1	No
Reclaim Fittings	Point	352	Yes
Reclaim Hydrant	Point	1	Yes
Reclaim Laterals	Line	120	Yes
Reclaim Meter Vault	Polygon	0	No
Reclaim Valves	Point	149	Yes
Reclaim Water Line	Line	451	Yes


vector.GISADMIN.Reclaimed_System
vector.GISADMIN.ReclaimBlowOff
vector.GISADMIN.Reclaimed_System_Net
vector.GISADMIN.Reclaimed_System_Net_Junctions
vector.GISADMIN.ReclaimedMH
vector.GISADMIN.ReclaimedPumpStation
vector.GISADMIN.ReclaimedStorageTank
vector.GISADMIN.ReclaimedStructure
vector.GISADMIN.ReclaimFittings
vector.GISADMIN.ReclaimHydrant
vector.GISADMIN.ReclaimLaterals
vector.GISADMIN.ReclaimMeterVault
vector.GISADMIN.ReclaimValves
vector.GISADMIN.ReclaimWaterLine