

# Using Cityworks for Source Control and Water Quality Programs

Stormwater Services Data and Analytics Team



**King County**

Department of Natural Resources and Parks  
**Water and Land Resources Division**

**WLR**

*Protecting King County's water and lands for everyone to enjoy safely today, and for generations to come.*

# Cityworks at King County Stormwater Services

The screenshot displays the Cityworks web application interface. At the top, there is a navigation bar with the Cityworks logo, a search bar, and a user profile for 'Hetrick, Nick'. Below the navigation bar, there are several menu items including 'Dashboard', 'Service Requests', 'Work Orders', 'Inspections', 'Assets', 'Source Control', 'Reports', 'Tools', and 'Admin Tools'. The main content area shows a 'Water Quality Inspection Series Ready to Close' section with a table of inspection records. The table has columns for 'Wo', 'Status', 'Parcel', and 'Address'. Below the table, there is a 'Completed Inspections (Status = 'Closed')' section with a bar chart titled 'Water Quality Inspections Completed by Year' showing data for 2019 and 2020. The 2019 bar is significantly higher than the 2020 bar. Below the chart, there is a section for 'Inspections Conducted by Quarter 2020' with two sub-sections for '1st Quarter MO Inspections Conducted' and '2nd Quarter MO Inspections Conducted'.

Wo	Status	Parcel	Address
<a href="#">769</a>	OPEN	8570900244	400 E NORTH BEND WAY
<a href="#">692</a>	OPEN	2421039113	1901 SW CAMPUS DR
<a href="#">50</a>	OPEN	1726079038	29726 NE CHERRY VALLEY RD
<a href="#">166</a>	OPEN	0426069010	19115 215th Way NE

Rows 5

Water Quality Inspections Completed by Year

Year	Completed Inspections
2019	~550
2020	~100

Inspections Conducted by Quarter 2020

Quarter	MO Inspections Conducted
1st Quarter	~100
2nd Quarter	~100

- 🕒 Deployed in 2019
- 👤 70 end users (WLRD instance)
- 🕒 Supports multiple programs in water quality and asset management
- 🕒 805 LSC/Water Quality inspections completed.
- 🕒 99 Water Quality Issues reported



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## Technical Details

### • Back End Infrastructure

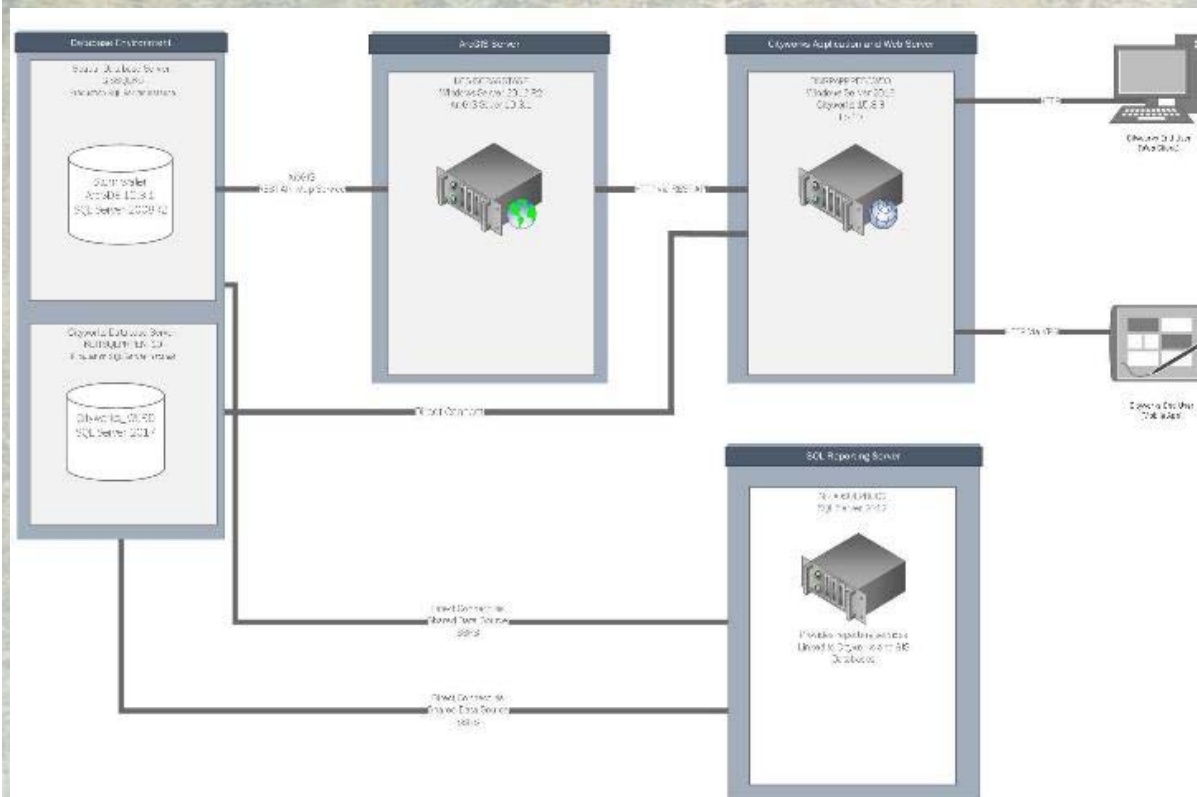
- Application Server for Cityworks (On Premise)
- SQL Server Database
- ESRI ArcGIS Server

### • Front End Applications For Cityworks

- Cityworks AMS (Primary Web Application)
- Cityworks Mobile (iOS/Android)
- Cityworks Respond (Responsive Web App)

### • GIS Applications Used for Inventory

- ESRI ArcGIS Desktop Products (Pro/Desktop)
  - Used for data management and map service creation
- ArcGIS Collector (iOS/android)
  - Used for data editing in the field



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# Water Quality Inspection Series Components in Cityworks

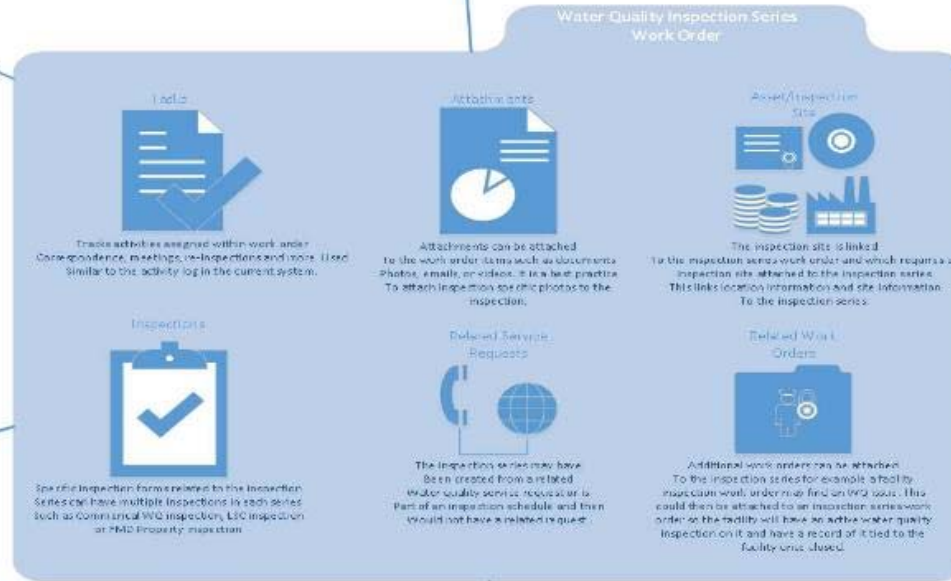
Tasks				
Description	Status	Proceed	Rework	Assigned To
Conduct Water Quality Inspection	COMPLETE	True	True	test, Inspector
Conduct Water Quality Re-inspection	CURRENT	False	False	test, Inspector
Enforcement Needed	COMPLETE	True	False	test, Inspector
Meeting	PENDING	False	False	test, Inspector

Attachments			
+ Add attachment...		Remove all attachments	
	Water Quality Inspection-114.pdf Attached by Hatrick, Nick Inspection Report	645.42 KB 06/14/2018 1:23 PM	
	Corrective Action Letter.pdf Attached by Hatrick, Nick Corrective action letter sent on 6/14/2018	117.65 KB 06/14/2018 4:26 PM	

Assets				
Total Entities: 1				
BusinessName	NACISCode	NAICSDescription	UBINumber	SiteType
JAMES HAIR DESIGN	812112	Beauty Salons	17902380Z	174

- Pink rows indicate inventory still under warranty.

Update Work Order XY when adding/removing assets?



Inspections				
Add Inspection...				
ID	Type	Description	Entity ID	Entity Type
114	INSP	WQ-Commercial Site	BUS-13	BUSINESS INSPECTION SITES
305	INSP	WQ-Local Source Control	BUS-13	BUSINESS INSPECTION SITES

Service Requests						
Add Request						
ID	Date Initiated	Description	Priority	Category	Submit To	Dr
138	8/22/2018	Water Quality Issue	3	WQISSUE	Hatrick, Nick	Bl

# Demo

The screenshot displays a web-based GIS application interface. At the top, there is a navigation bar with tabs for 'Layer Search', 'Locate', 'Base Maps', 'Webmaps', 'Create Activity', 'Editor', 'Heat Maps', and 'Navigation'. Below this is a toolbar with icons for 'Action', 'Toggle', and 'Identify'. A search bar is located in the top right corner of the interface. The main map area shows a satellite-style view of King County, Washington, with labels for 'Seattle', 'Mercer Island', 'Newcastle', 'Tukwila', 'Renton', 'Burien', and 'SeaTac'. A legend panel is open on the right side, listing various layers and search pins. The legend items include:

- AMS/PLL Search Pins
- WorkOrder Events
  - Open Facility Maintenance Work Orders
  - IC, ID, Failing OSS
  - Open Maintenance Work Orders
    - Clean CB Work Orders
- Water Quality Programs
- Stormwater MS4
- Background Layers
- Base Map
- Aerial Overlay
- 2019 Aerial



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# Future Enhancements

- ⑥ Automate spill reporting notification using web hooks
- ⑥ Fully automate XML extract to DOE
- ⑥ More Integration with NPDES Annual Reporting
- ⑥ Advanced Dashboards using Cityworks Analytics/ESRI Insights and Power BI
- ⑥ Implementing Cityworks Respond
- ⑥ Integration with financial system



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# Questions?

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