

UC San Diego

MAY 11, 2022

Diana Henderson, Space Analyst, Campus Planning

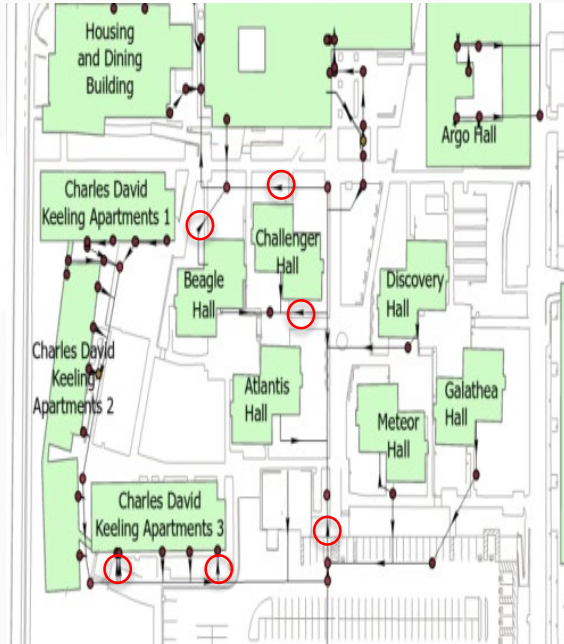
Yijian Zong, Technical Lead, RTL Engineering

TRACING COVID-19 THROUGH EFFLUENT TESTING FOR THE RETURN TO LEARN PROGRAM

Utilizing Geographic Information Systems (GIS) to provide visualization and automated trace analysis, for
an improved notification process

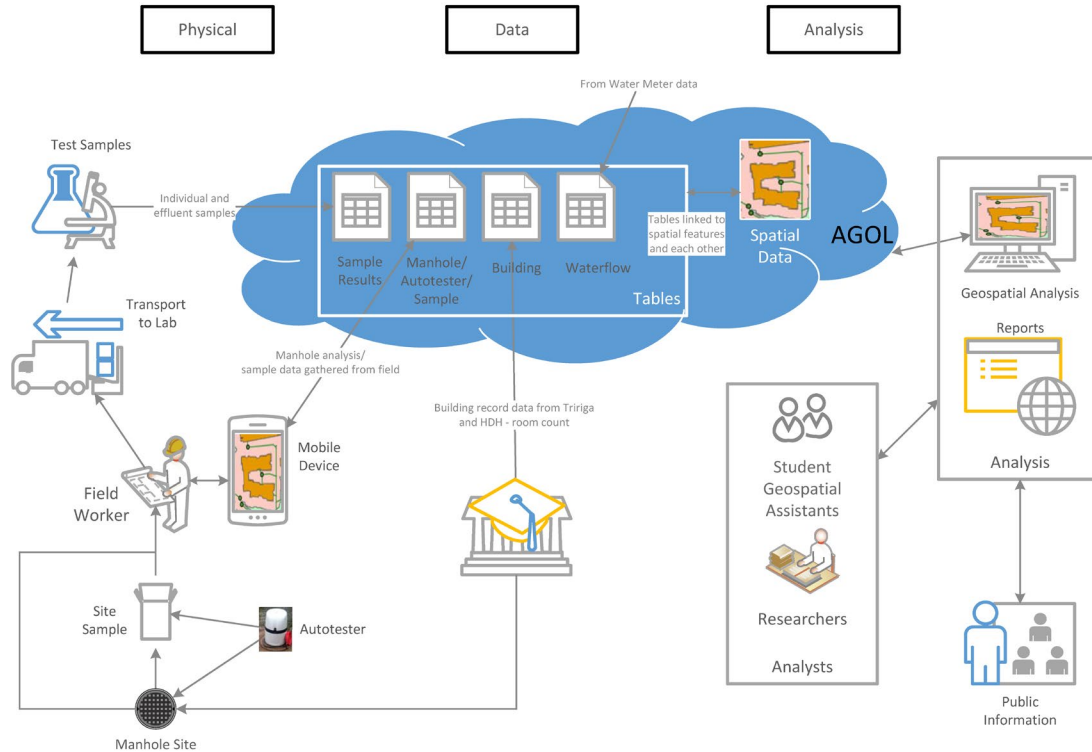
**GATHER AND EVALUATE DATA
&
INCORPORATE A GIS WORKFLOW**

SEWER UTILITY DATA – DISCONNECTED AND UNDIRECTED

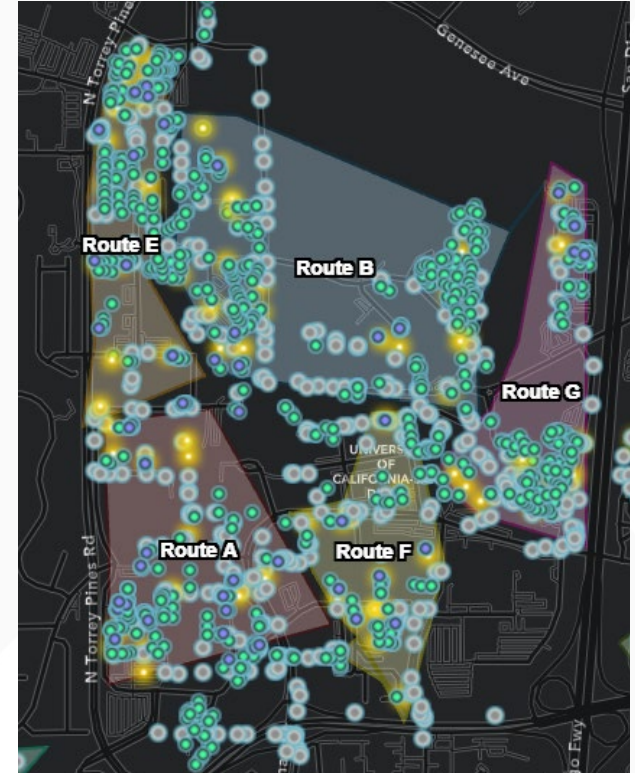
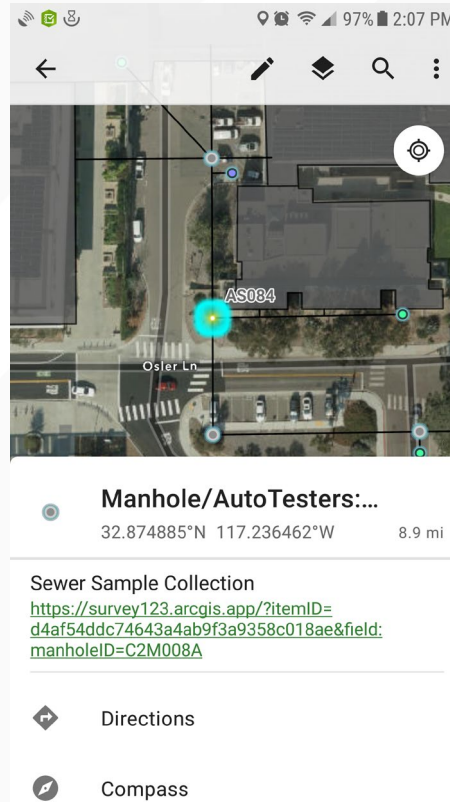


	A	B	C	D	E	CAAN	mhUCSD_ID
142	7152	Tuolumne Apartments - S House East				6358	C1M022
143	7153	Tuolumne Apartments - T House North				6501	C1M022
144	7154	Tuolumne Apartments - T House West				6502	C1M022
145	7155	Tuolumne Apartments - T House South*				6503	C1M022
146	6608	Tuolumne Apartments - S House Laundry*				6504	C1M022
147	7156	Tuolumne Apartments - T House East				6666	C1M022
148	6606	Stewart Commons				7249	C1M022
149	7215	Mandler Hall				6358	C1M022B
150	6602	McGill Hall				6501	C1M022B
151	7276	Tamarack Apartments East				6502	C1M022B
152	7275	Tamarack Apartments Wes				6503	C1M022B
153	*New Sewer Reach*					6504	C1M022B
154	CAAN	Name	Manhole	BuildingPer	otherThanResidential	6505	C1M022B
155			C1M162	1	0	6506	C1M022B
156		NTPLLN-BLDG 1				6666	C1M022B
157			C1M161	2	0	7249	C1M022B
158		NTPLLN-BLDG 1				6358	C1M024
159		NTPLLN-BLDG 2 EAST				6501	C1M024
160			C1M160	3	0	6666	C1M024
161		NTPLLN-BLDG 1				7249	C1M024
162		NTPLLN-BLDG 2 EAST				6336	C1M031
						6507	C1M031
						6508	C1M031
						6340	C1M057
						6602	C1M057
						6604	C1M057
						6605	C1M057

EFFLUENT TESTING WORKFLOW

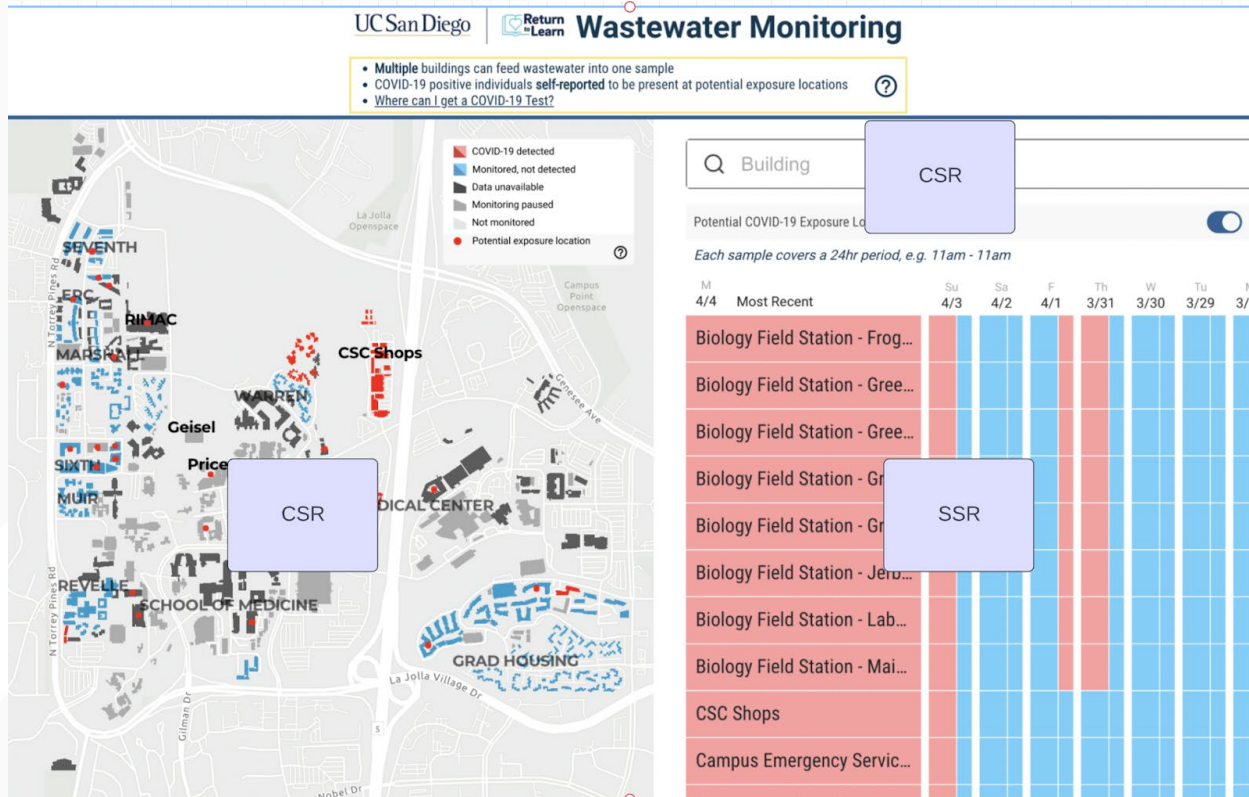


FIELD WORK

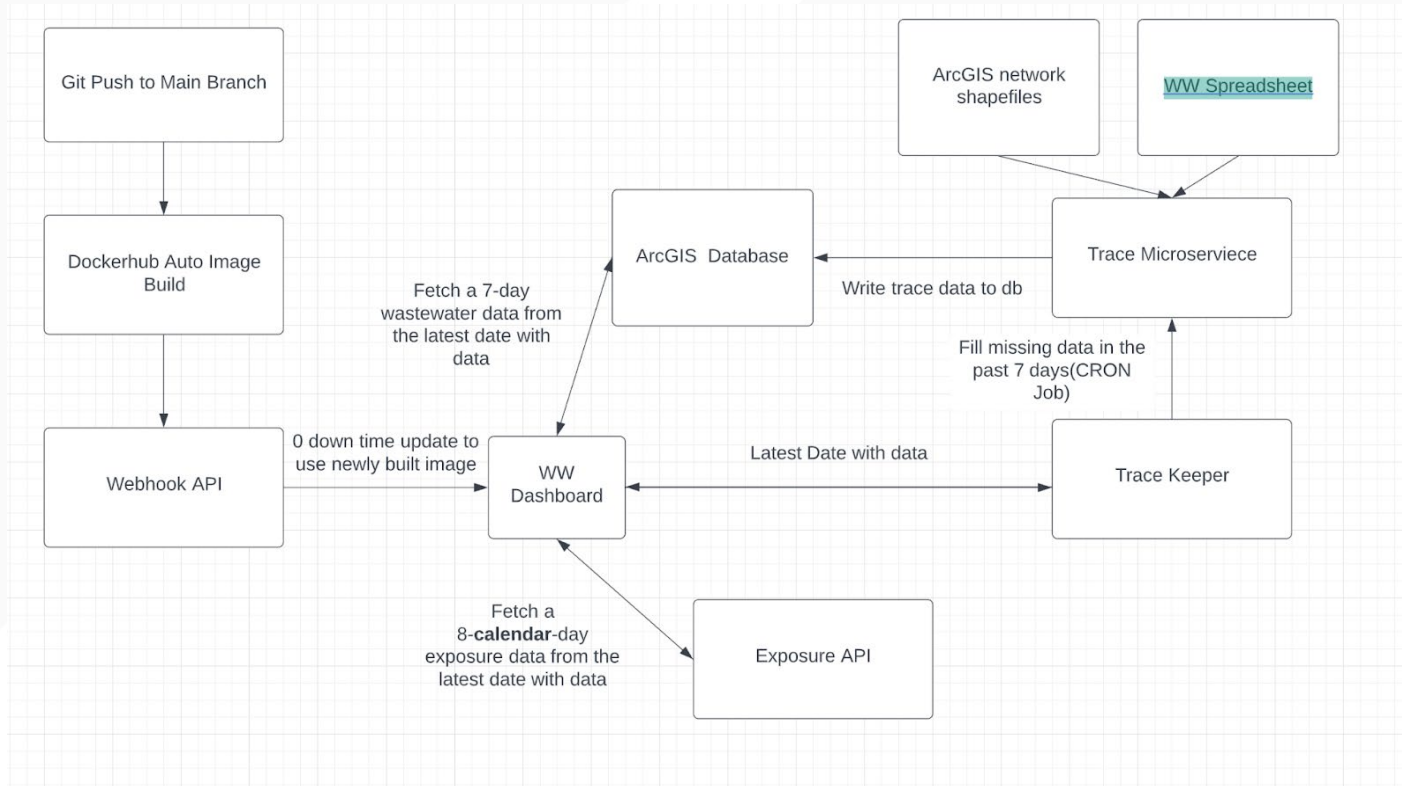


RTL DASHBOARD

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RTL VIZ INFRASTRUCTURE



THE FUTURE – VERSION 2.0

- **Move, link, and store ALL authoritative geospatial operational data into Enterprise Geodatabase and Utility Network Model**
- **Optimize data maintenance workflows for and between sewer, building, and trace network**
- **Facilitate data Integration between UCSD authoritative systems, relevant/real-time data, and automation pipelines**
- **Create rest services of sewer layers for integration into RTL Wastewater Monitoring map**
- **Develop further visualizations, with proximity and connectivity analysis applications and dashboards**
- **Add mobile evaluation field work selector for manhole/cleanout and autotester placement and synchronization**

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