

CEEn-2019CPST-009

Lehi Pressurized Irrigation Water Usage

Defining the watered area for each pressurized irrigation meter

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Introduction

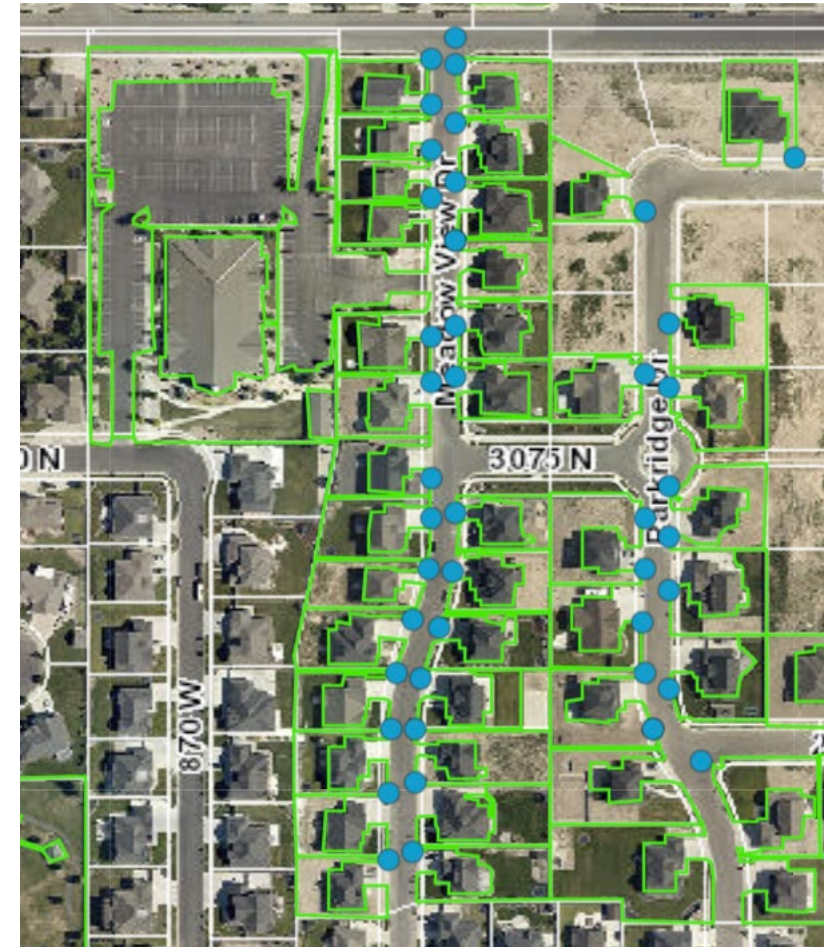
Our objective was to create polygons to represent the “green space” or the area of possibly watered area for each secondary water pressurized irrigation meter currently installed in Lehi.

Secondary water meters have only been required in Lehi since 2016, as such, there are roughly 1400 meters currently installed.

Eventually the area of shapes will be used in calculating the usage suggestions for users to gage their own usage against - hopefully encouraging lower usage. Other water districts in the area have this system in place and have seen a 20 to 30% reduction in secondary water usage.

Project Tasks and Deliverables

- Meeting with Weber Basin Water Conservancy District
- Catalog of 1300+ green space shapes on a GIS portal
- Troubleshoot questionable areas in existing GIS data



Design and Analysis

It was decided that the park strip and small paved areas were included in the green space.

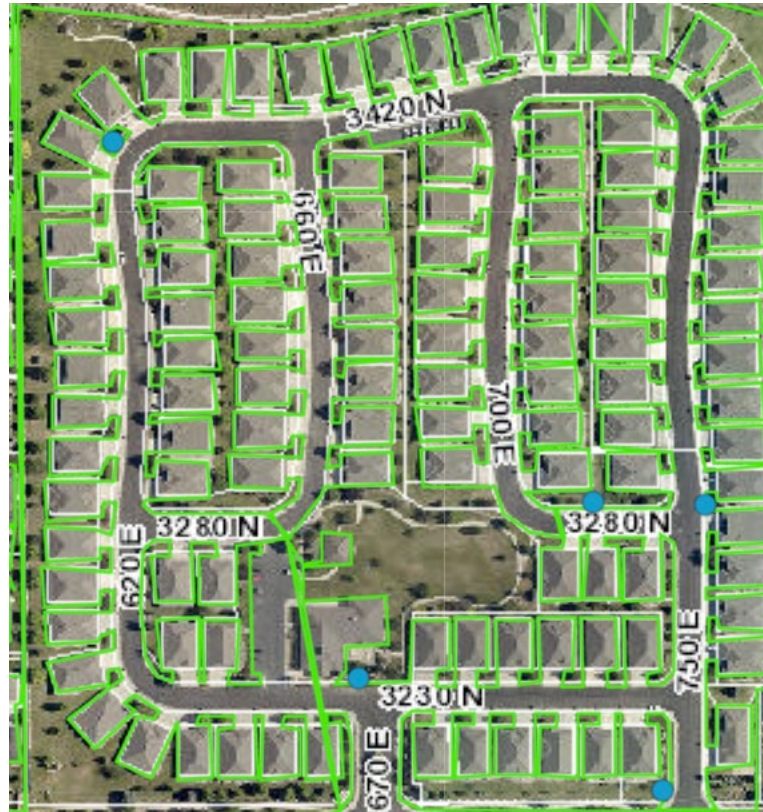
Paved area and part strip included in polygon



House and driveway excluded from polygon

Design and Analysis

In cases where fewer meters were used than the number of units, the entire complex or neighborhood was included in one single polygon



Discussion of Results

- **1300+ Green spaces defined, which accounts for roughly 1400 meters**
- **A base of data was created to bring to the city counsel for approval to move forward with informing residents about their water usage and eventual billing off water meters**
- **This is a continuing project because as Lehi grows, more water meters will be installed, and the green space will need to be defined.**
- **A few meters are left unfinished due to lack of information on the current aerial imagery available**

Recommendations

- **Hire an intern to continue defining green spaces as new meters are installed**
- **When new aerial images are available finish lots that are incomplete**
- **Continue with the plan to inform users and track water conservation**

The End

Any Questions?