

Exploring Urban Water Use in Salt Lake City

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Goals

What are the dominant patterns of water use in Salt Lake City (SLC)?

Create a detailed longitudinal water use database for Salt Lake City.

Increase general awareness of where and how water is used in SLC through visual representations of water use in the Salt Lake area.

Chart water use throughout the year for several years organized by service type (Single family residence, Business, Apartment, etc.).

Research Methodology

Create water use database

- Clean public utilities database
- Added the tax assessors database
- Added climate data

Compute measures of water use

- Mean annual use
- Mean use per acre
- Indoor, summer, and total use

Findings

Water use data in tandem with meteorological data reveal the seasonal differences in water use and the influence of climatic differentiation. The largest quantity of water is used for irrigation in the summer. (Figure 1).

Substantial variation of water use on a per parcel basis is visible among parcels of the same service type as well as between service types (Figure 2).

Residential properties use the highest quantity of water because they represent the majority of parcels in SLC (Figure 3).

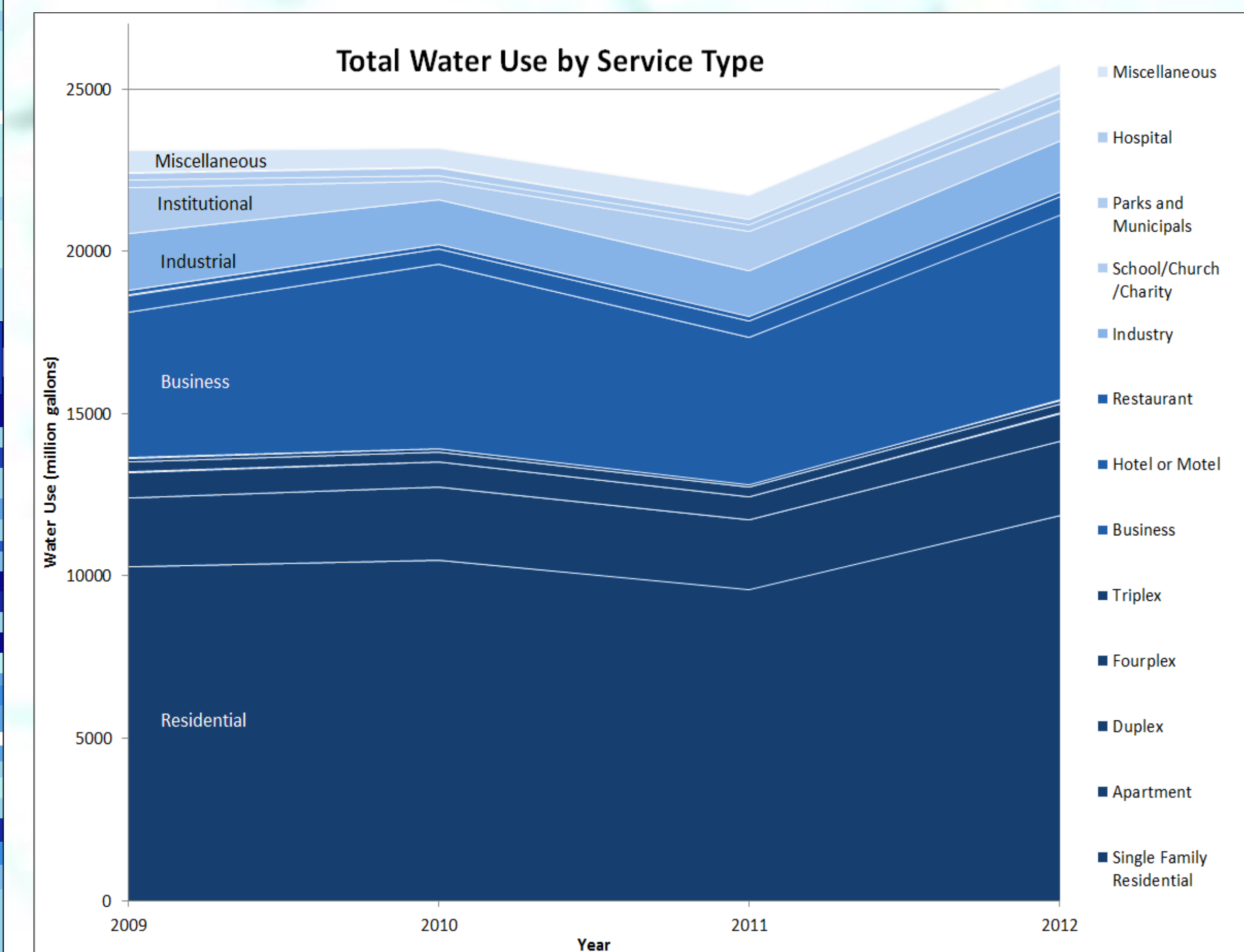
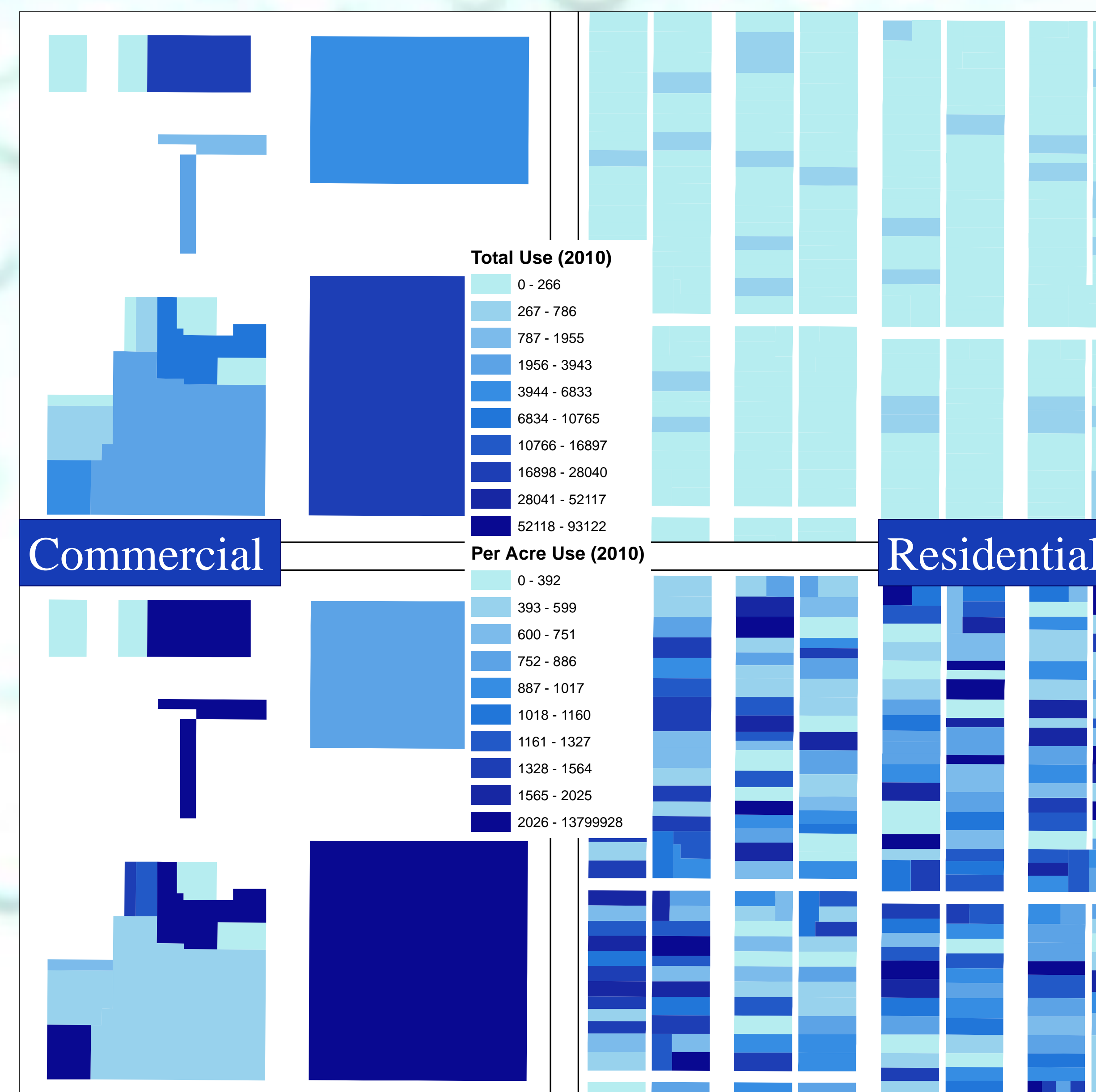
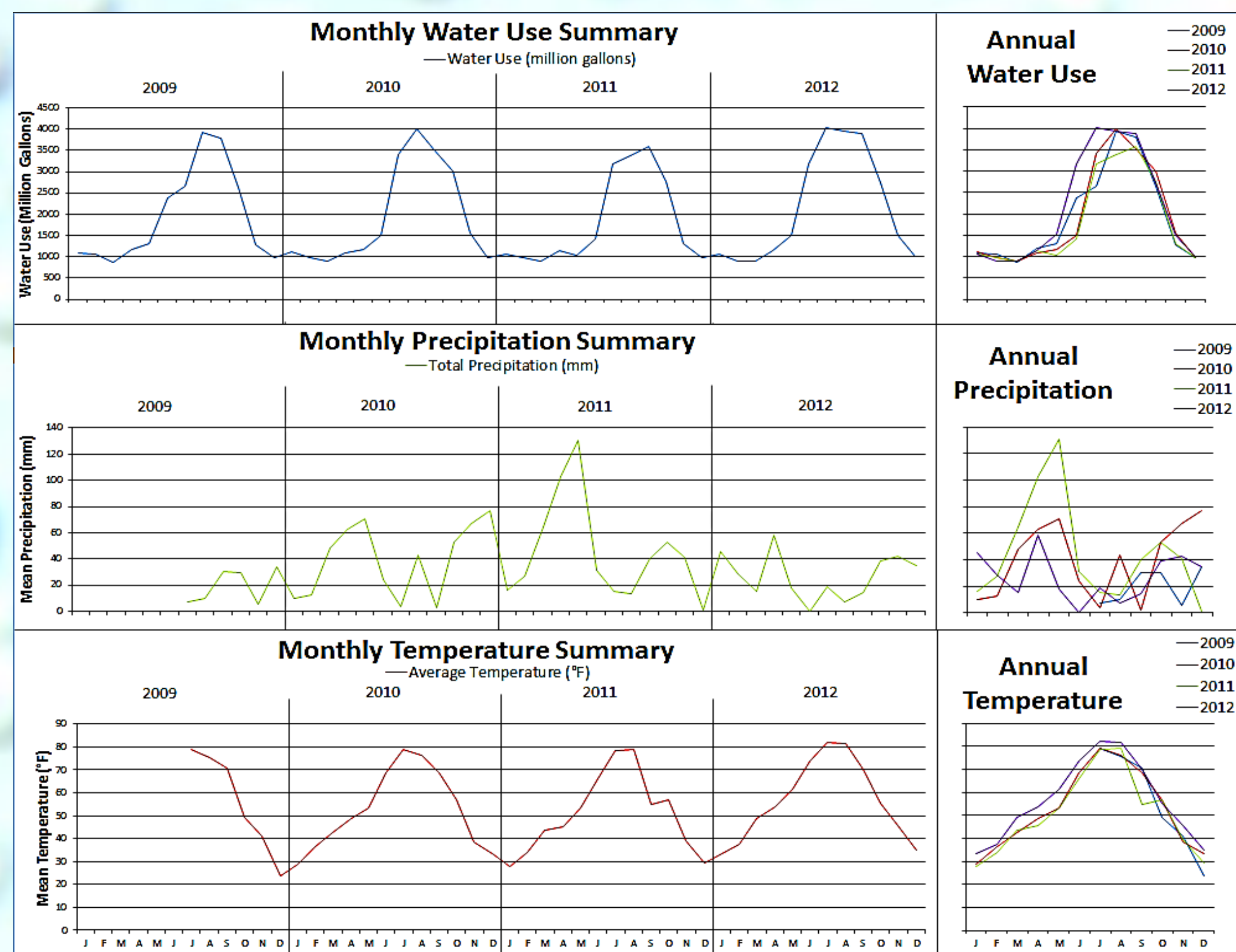
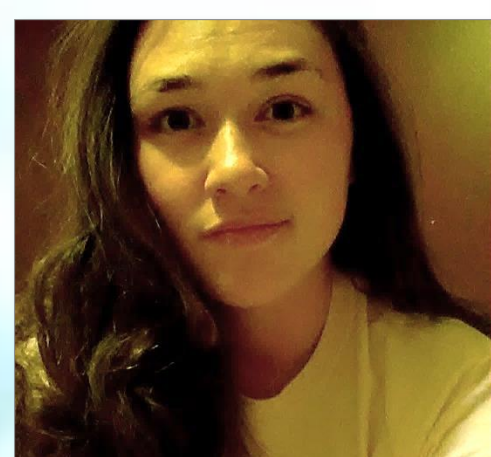


Figure 1. Average monthly water use, precipitation, and temperature (Climate data derived from NOAA).

Figure 2. Per parcel consumption (million gallons) for 2010 comparing residential and commercial parcels.

Figure 3. Total water use by service type divided into land use type categories.



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