



# TARGETING PEAK DAY DEMAND WITH IRRIGATION INSPECTIONS



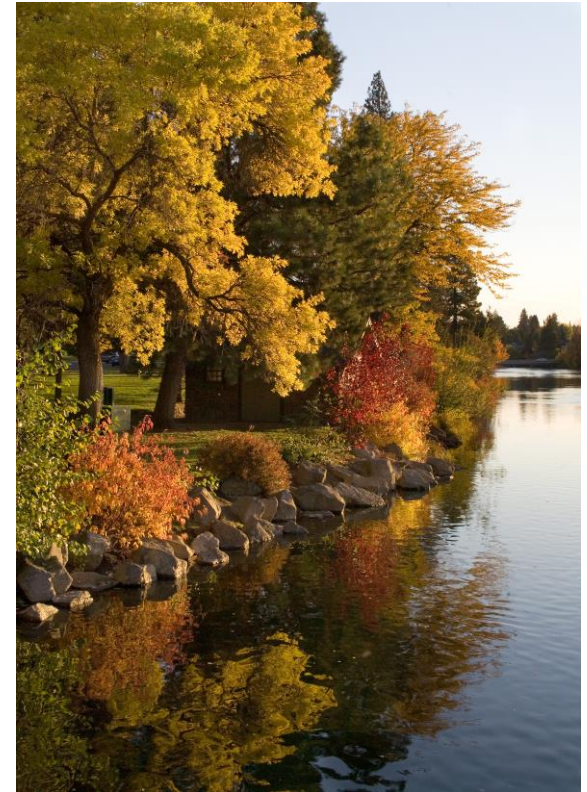
## Agenda:

- Bend in a snapshot
- Recent water use trends
- 2015 Sprinkler Inspection Pilot Program
- 2016 and beyond

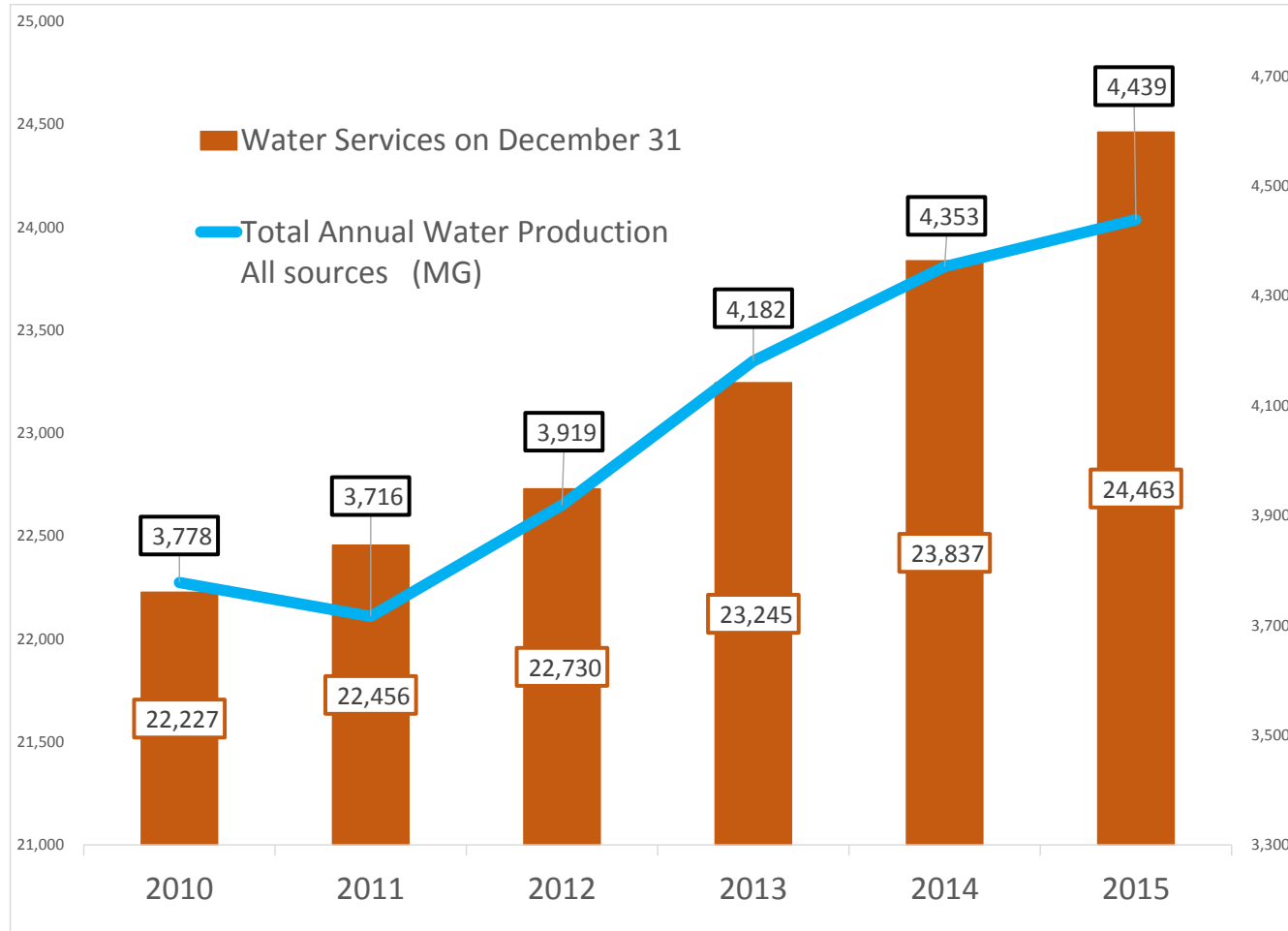


## General overview

- Estimated population 81,310 +/-
- Service population 60,673 +/-
- Water connections 24,461 +/-
- Annual demand 4,200 MG +/-
- Two primary water sources
- Water @ \$1.82 / CCF + base (\$22.02)
- Sewer @ \$3.38 / CCF + base (\$34.13)



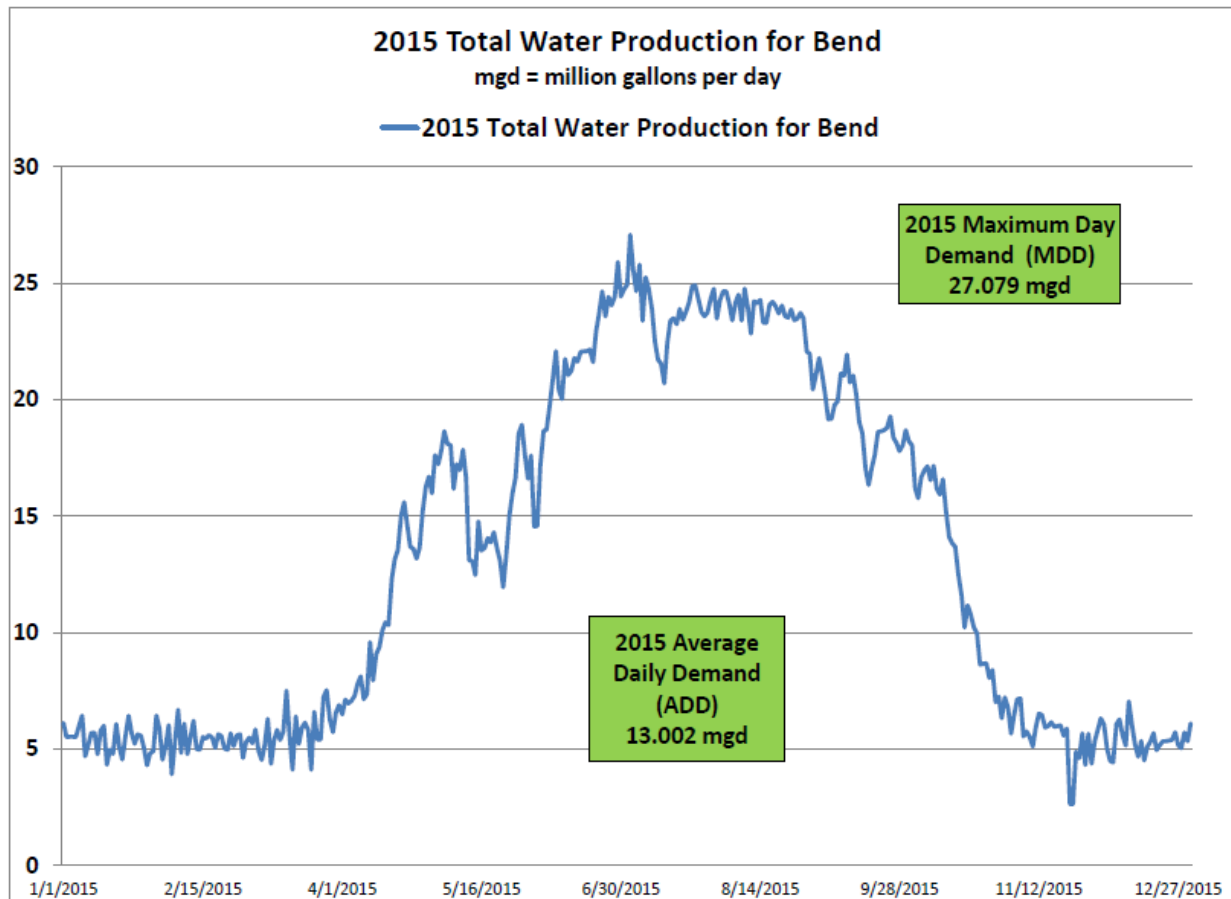
# TARGETING PEAK DAY DEMAND W/ IRRIGATION INSPECTIONS



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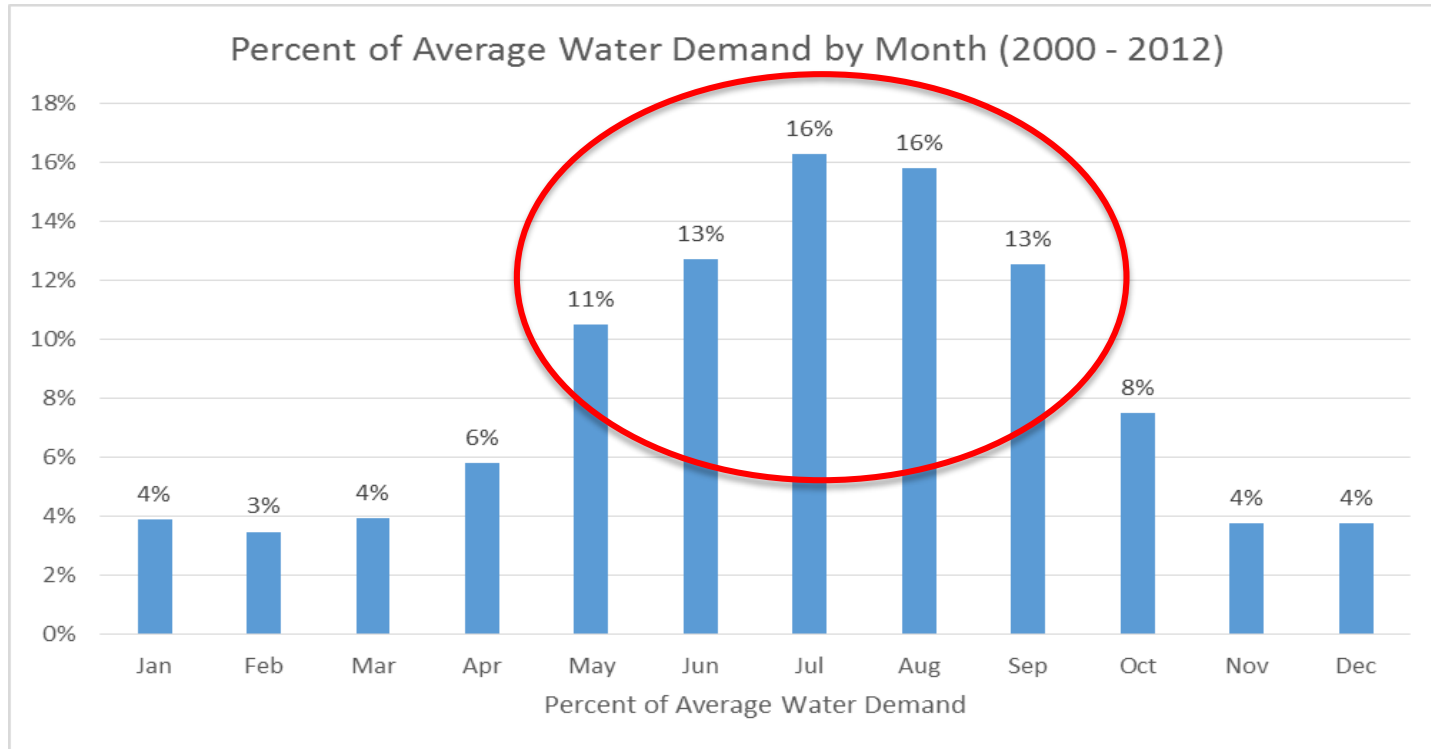
A look at Bend water use



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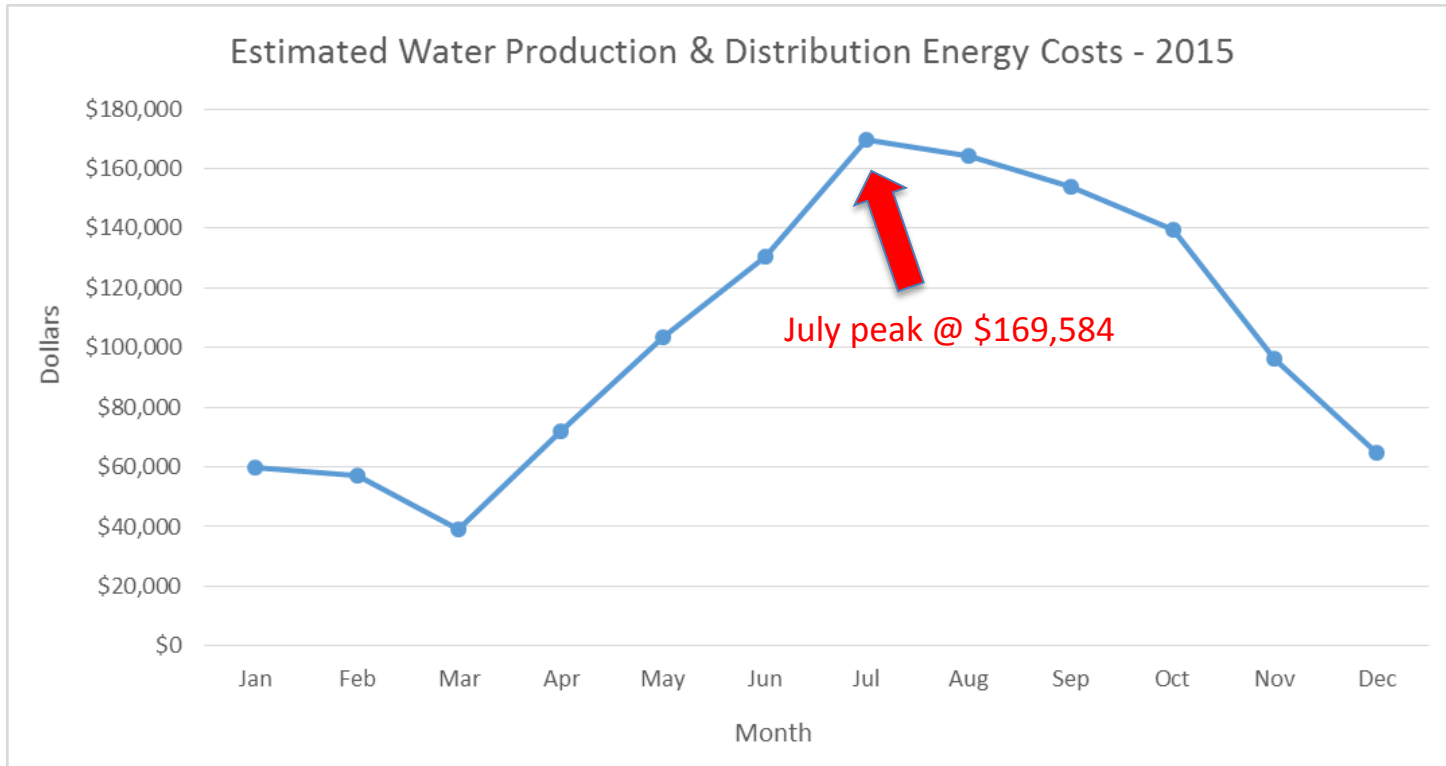
A look at Bend water use continued...



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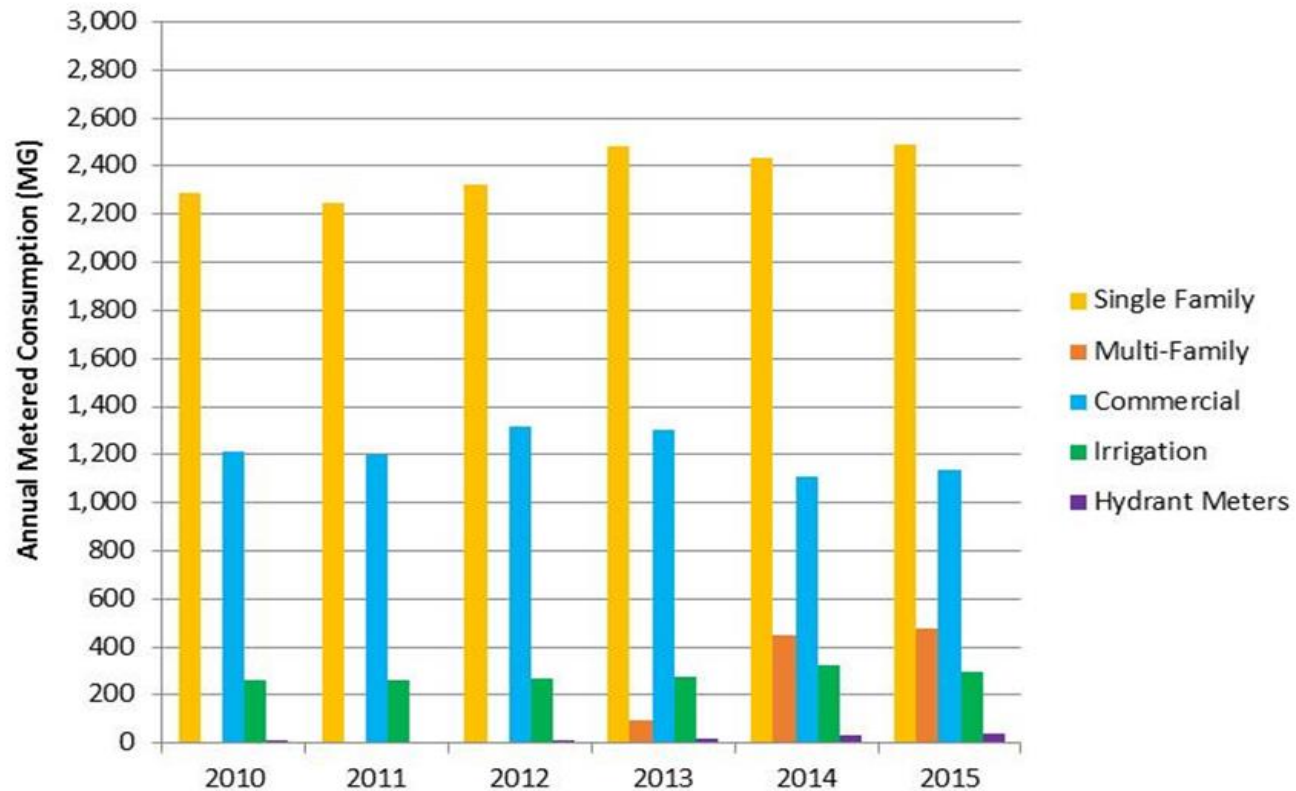
A look at Bend water use continued...



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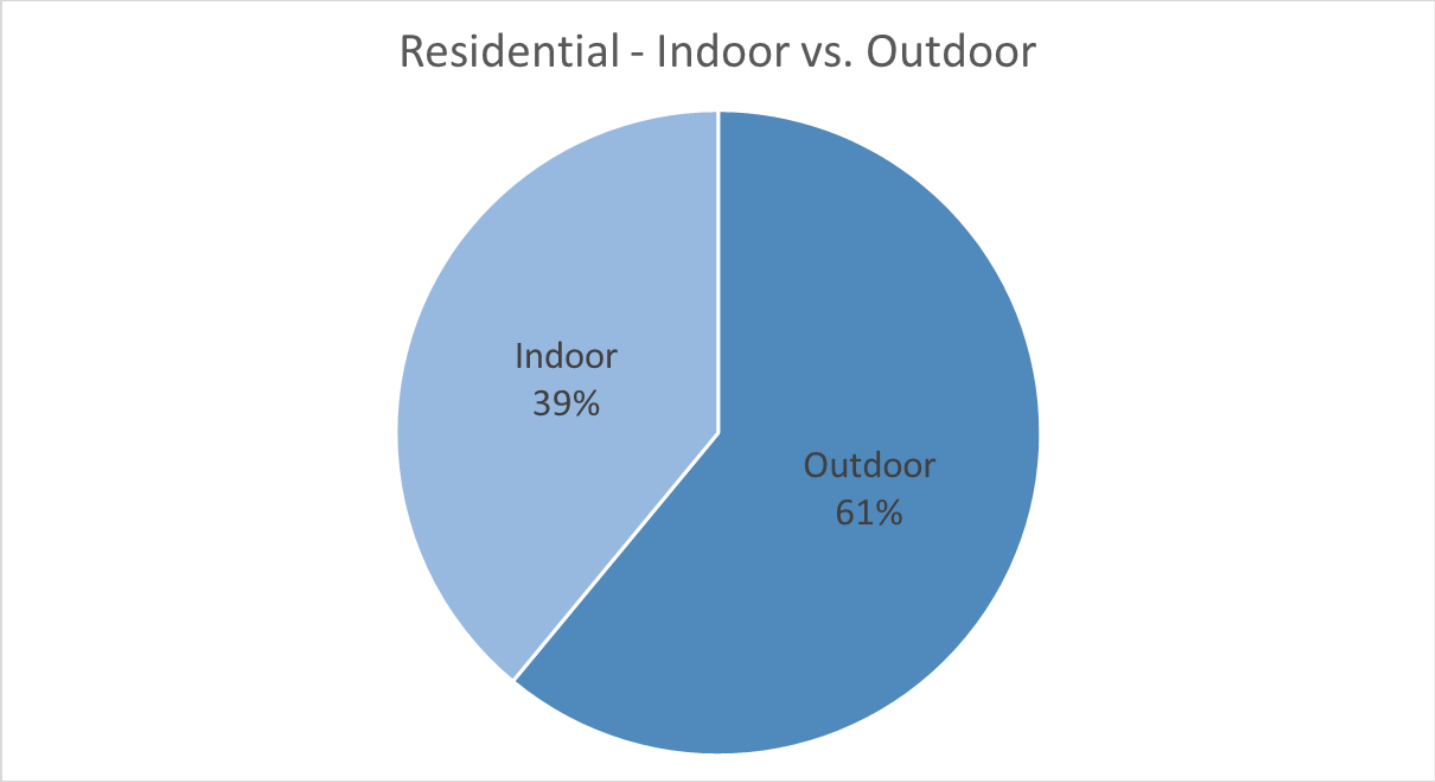
A look at Bend water use continued...







A look at Bend water use continued...





## Knowing what we know...

- Annual water demand trending up
- Bulk of water demands April – October
- Energy use mimics water demand
- Majority of customers residential
- Bulk of water used outdoors

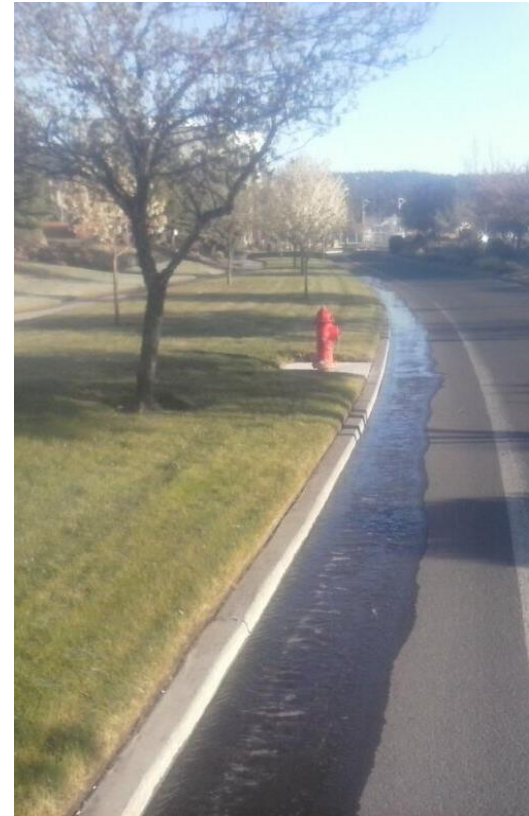
Where do you focus?





## Outdoors!

- Recent growth
- Desert climate w/ little rain
- Porous soils
- Private development code standards
- Public perception is key





# 2015 Sprinkler Inspection Pilot Program

- August – September 2015
- 121 inspections completed
- Emphasis on speed
- New software & tablets

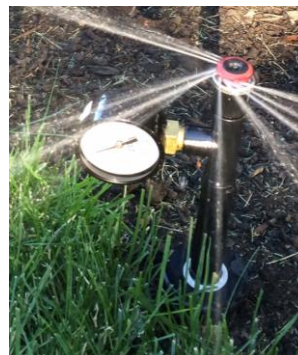




# 2015 Sprinkler Inspection Pilot Program

Inspections included:

- Initial conversation
- Review of current schedule
- Visual inspection
- System tests
- Revised schedule
- Q & A





# 2015 Pilot Program Takeaways...

- Customers loved it!!
- Range of system quality
- Most people need help
- Data collection was easy
- Automated reporting was nice
- Initial results are promising
- **Overhead costs too high**
- **Water savings too low**





## 2015 Program Takeaways...

Overhead costs **TOO HIGH**

- @ \$206.24 +/- per inspection
- Mostly labor and software

Water savings **TOO LOW**

- Savings exist, but...
- More deficit irrigators than anticipated

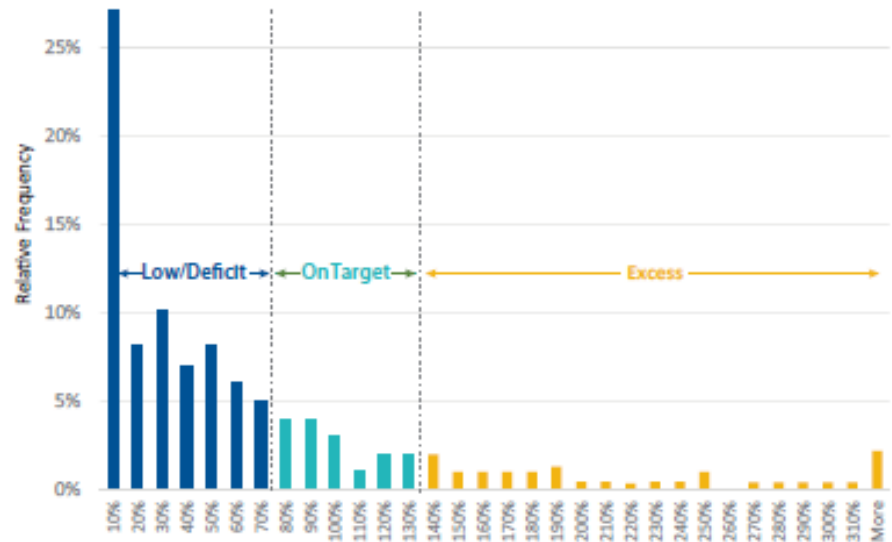
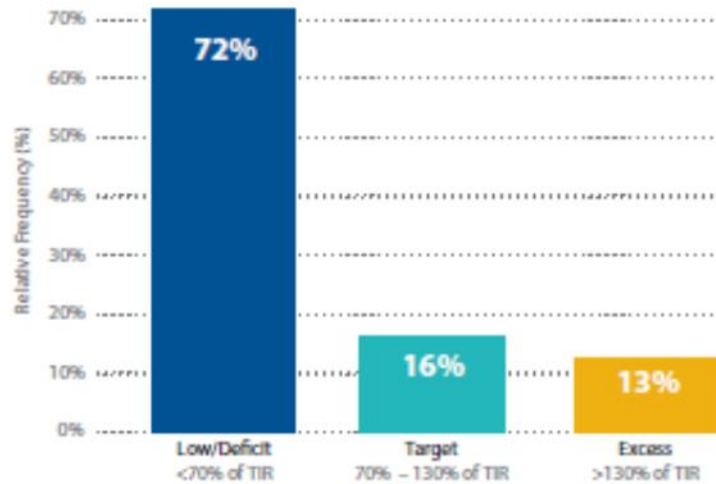




On a side note...Water Research Foundation says:

Outdoor Use

Figure 2. Percent of the Theoretical Irrigation Requirement (TIR) applied to landscape.

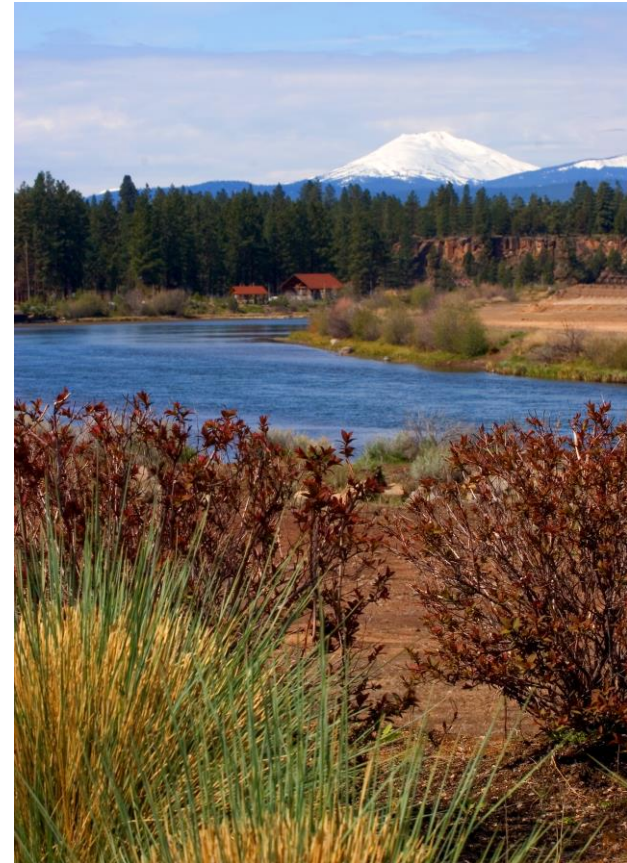






## 2016 and beyond!

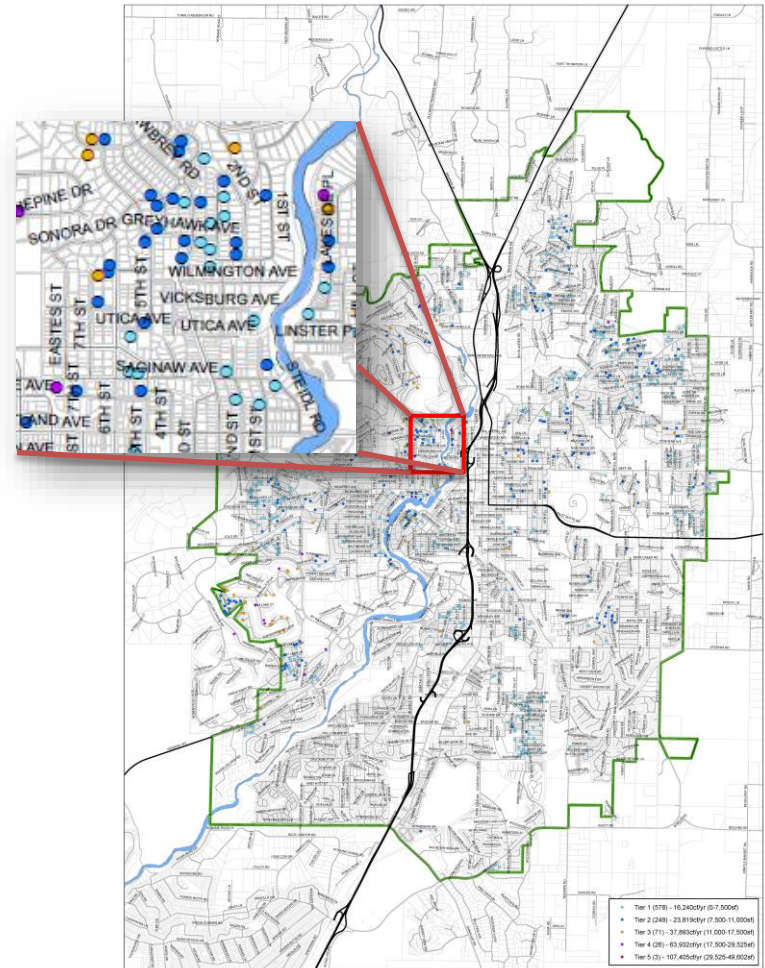
- Data driven
- Targeted
- Measureable
- Operationally efficient
- Multiple benefits





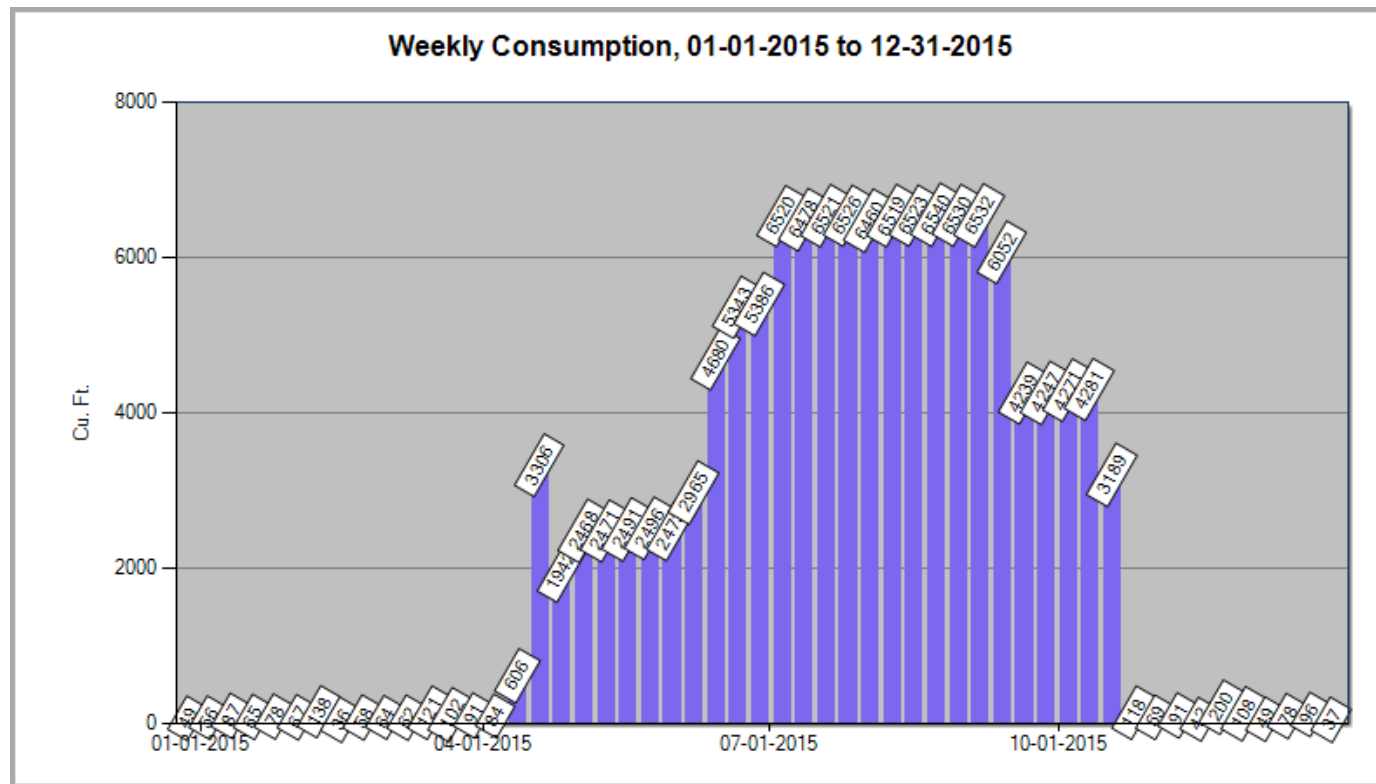
## 2016 Program:

- 200 inspections (May – Aug)
- 100 targeted / 100 first come
- Conservation potential mapping
- Cheaper software solution(s)
- Changed administrative procedures
- Changed inspection process



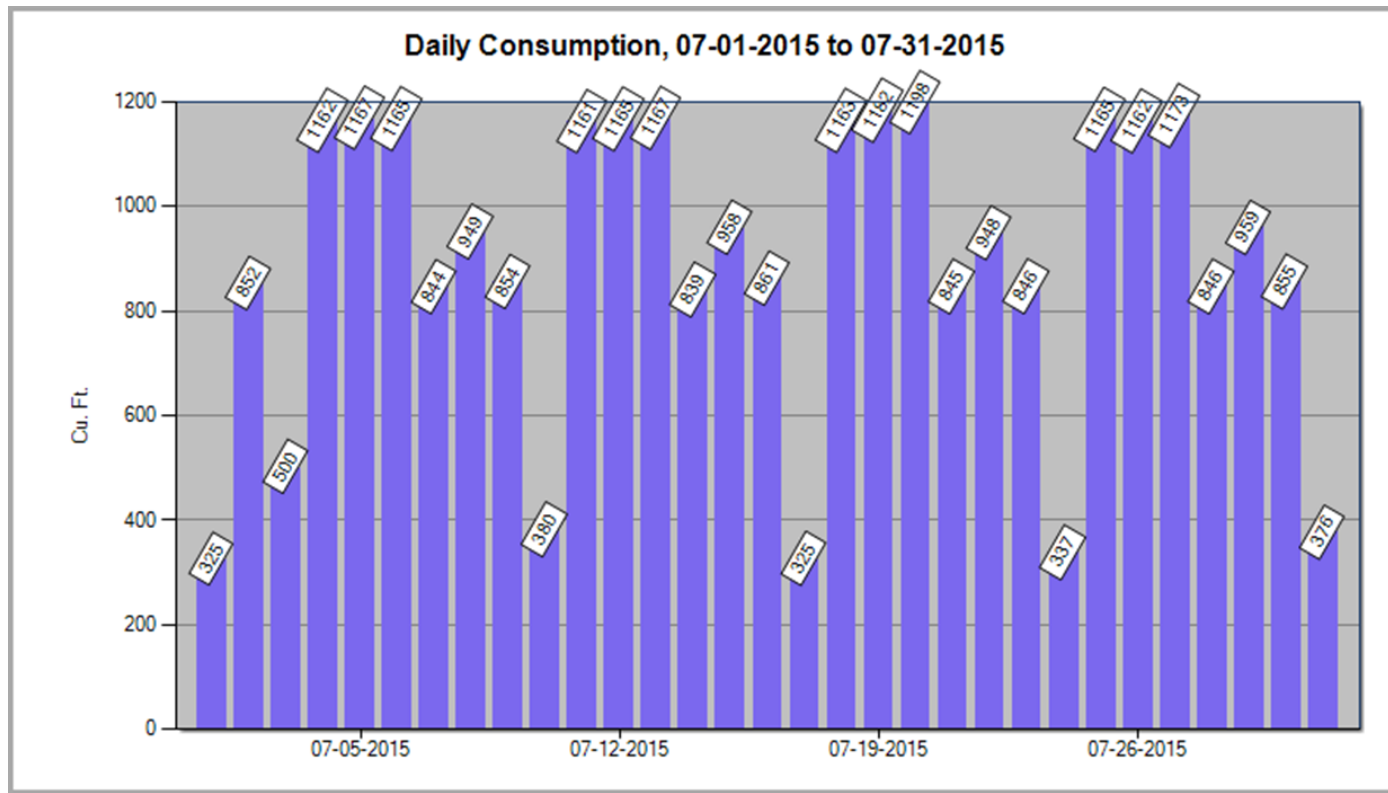


# Targeting conservation potential



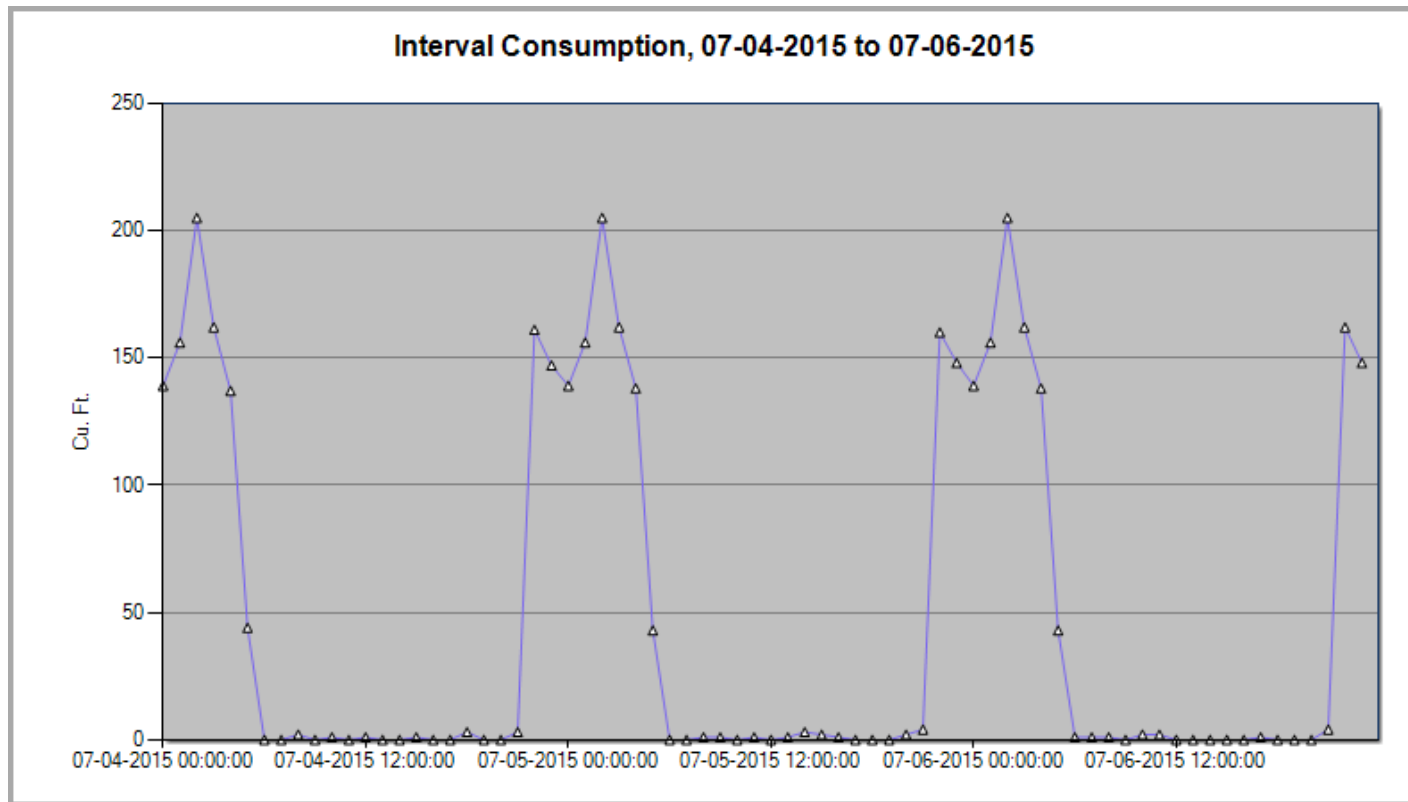


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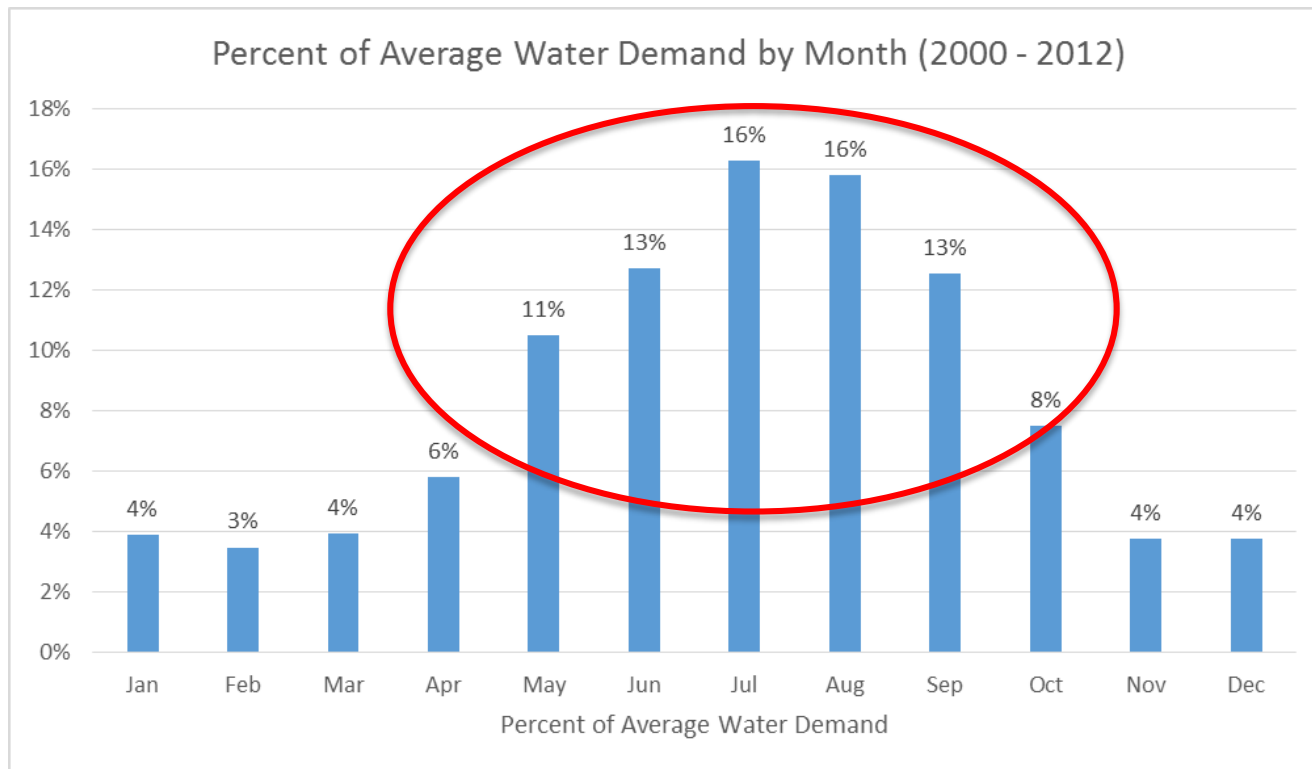


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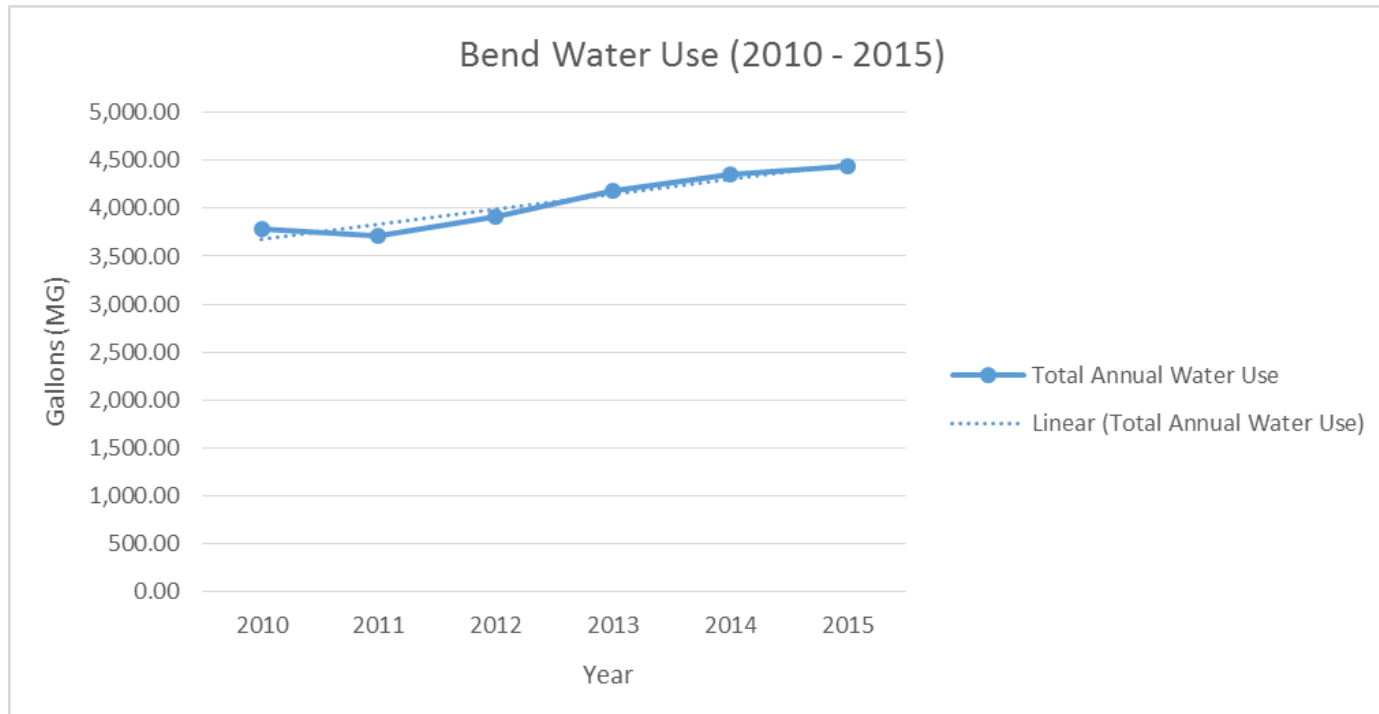


# 2016 and beyond!





# 2016 and beyond!





Questions?

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