UConn Water System

Supply, Demand and Reuse

December 9, 2010

Presentation Overview

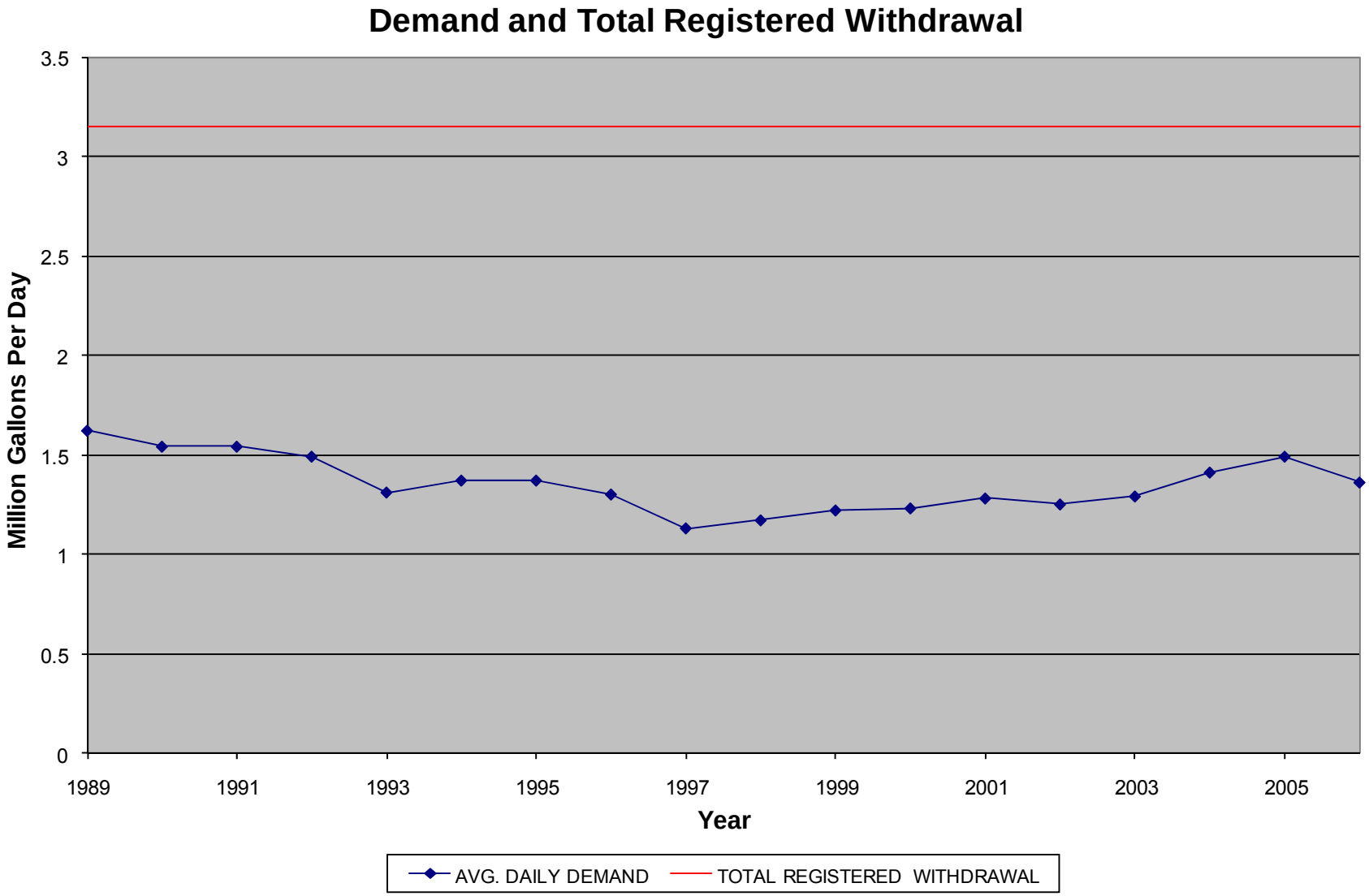
- ✓ UConn Water System Background
- ✓ Water Reuse Project
- ✓ Storrs area long term water supply options

Water Supply Sources: Wellfield Registrations

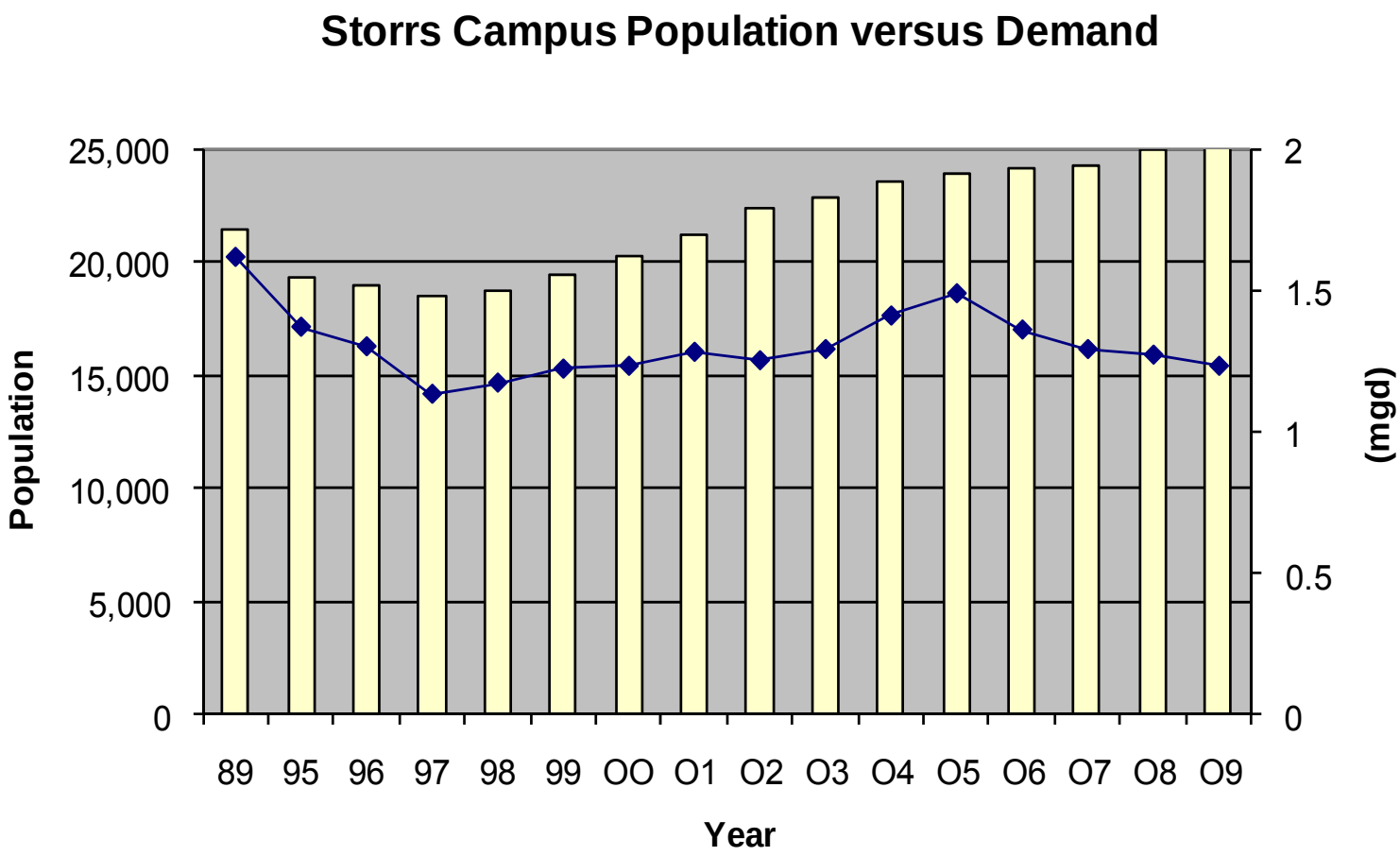
Fenton Wellfield	0.84 mgd
Willimantic Wellfield	2.31 mgd
Total Combined	3.15 mgd

- Established in 1982
- Registered quantities would be sufficient to meet current and projected demands

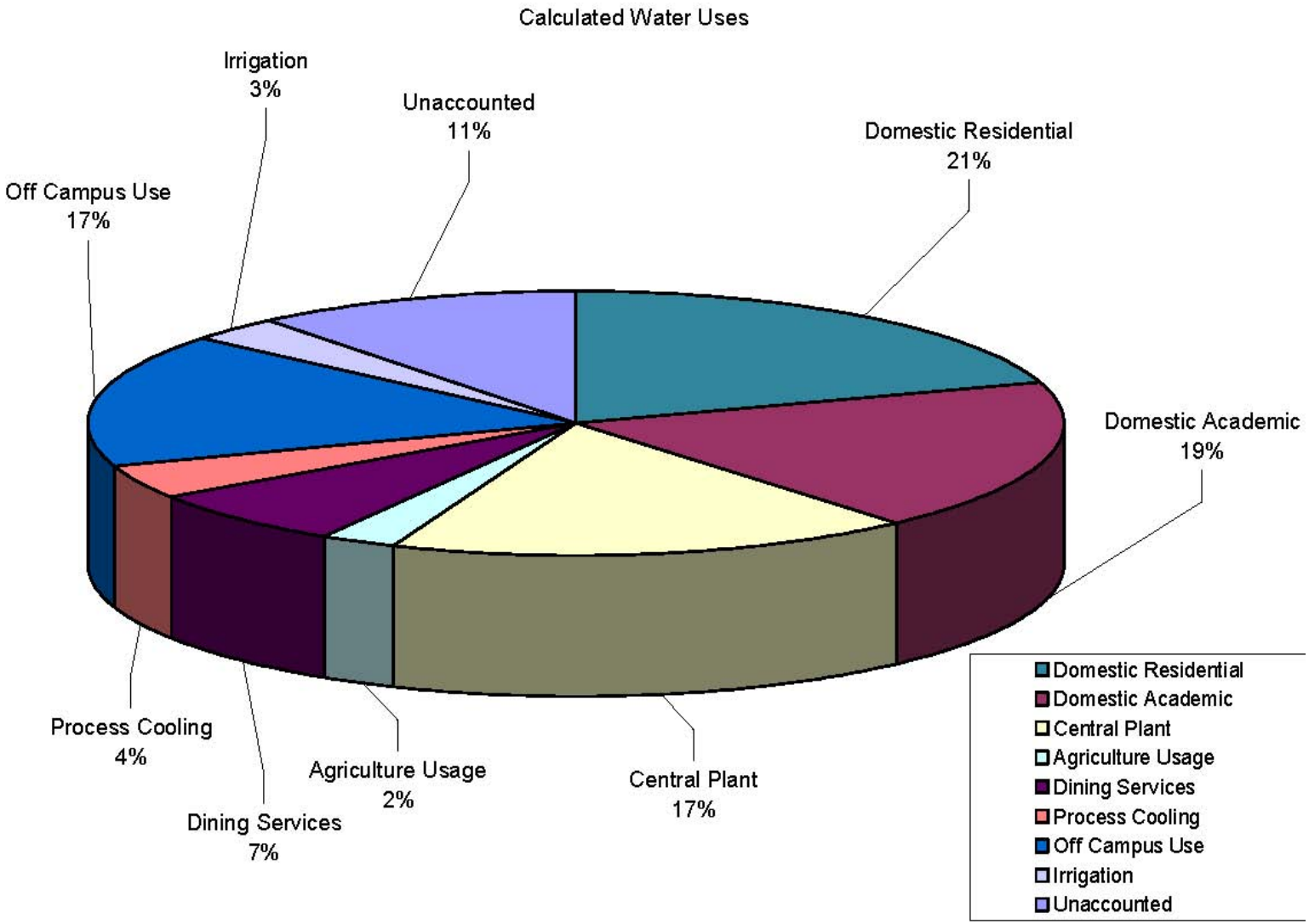
Average Daily Supply and Demand



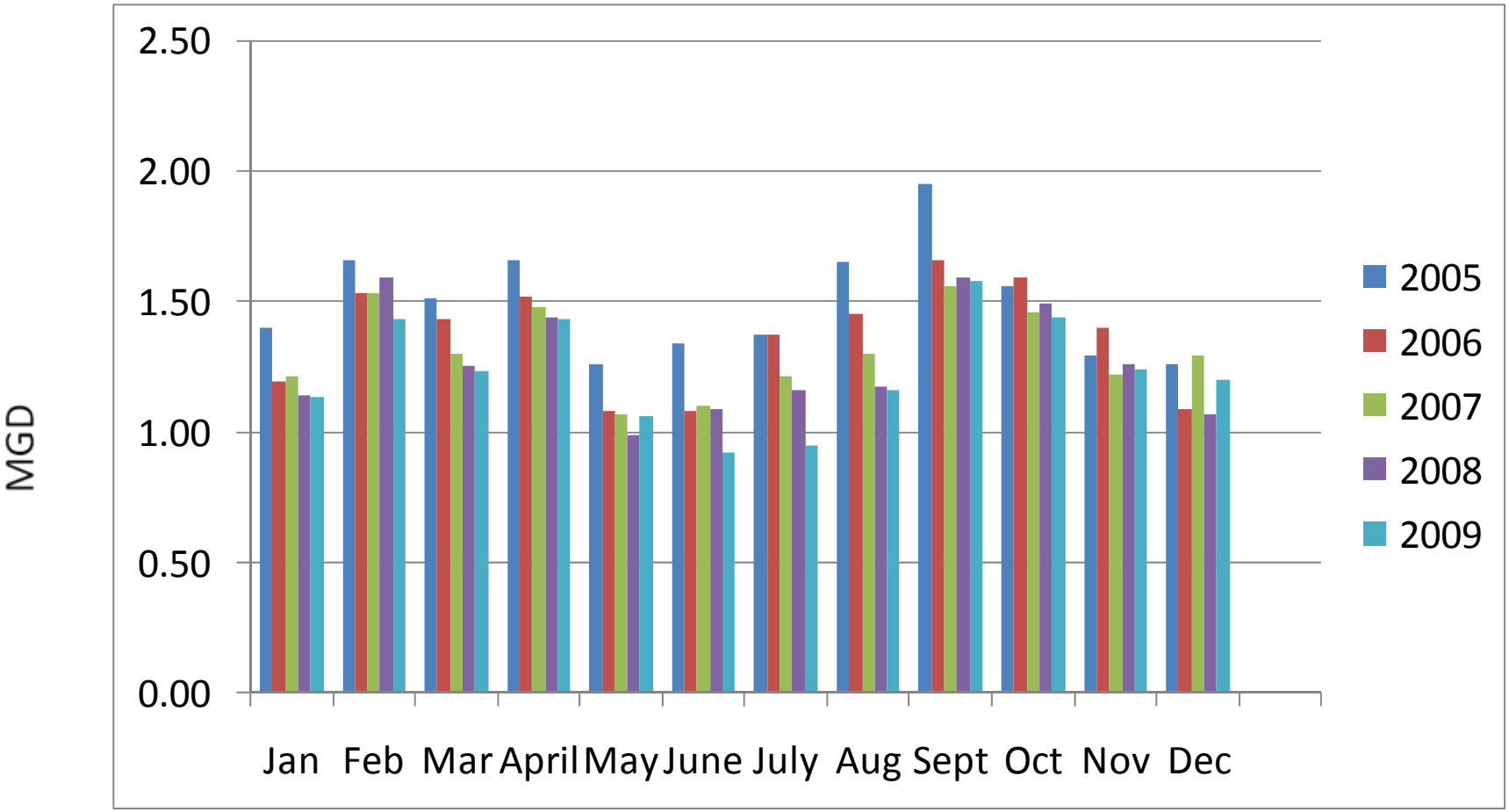
Population/Average Daily Demand



Water Uses – Annual Averages



2005-2009 Monthly Production

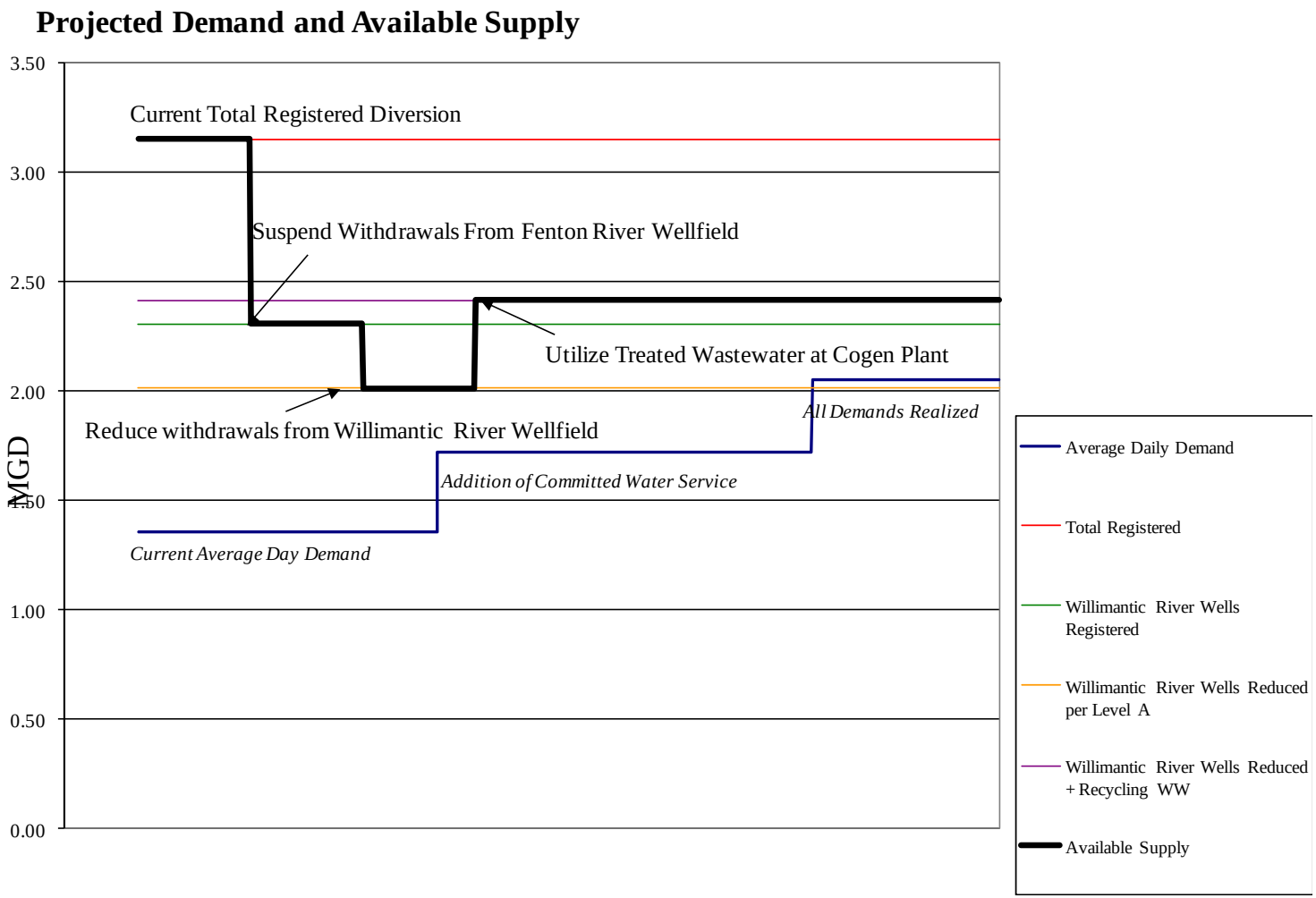


Impact of Stream Flow Based Restrictions

Fenton based on streamflow triggers	**NA**
Willimantic (based on Level A study)	**2.00 mgd**
Total Combined	**2.00 mgd**

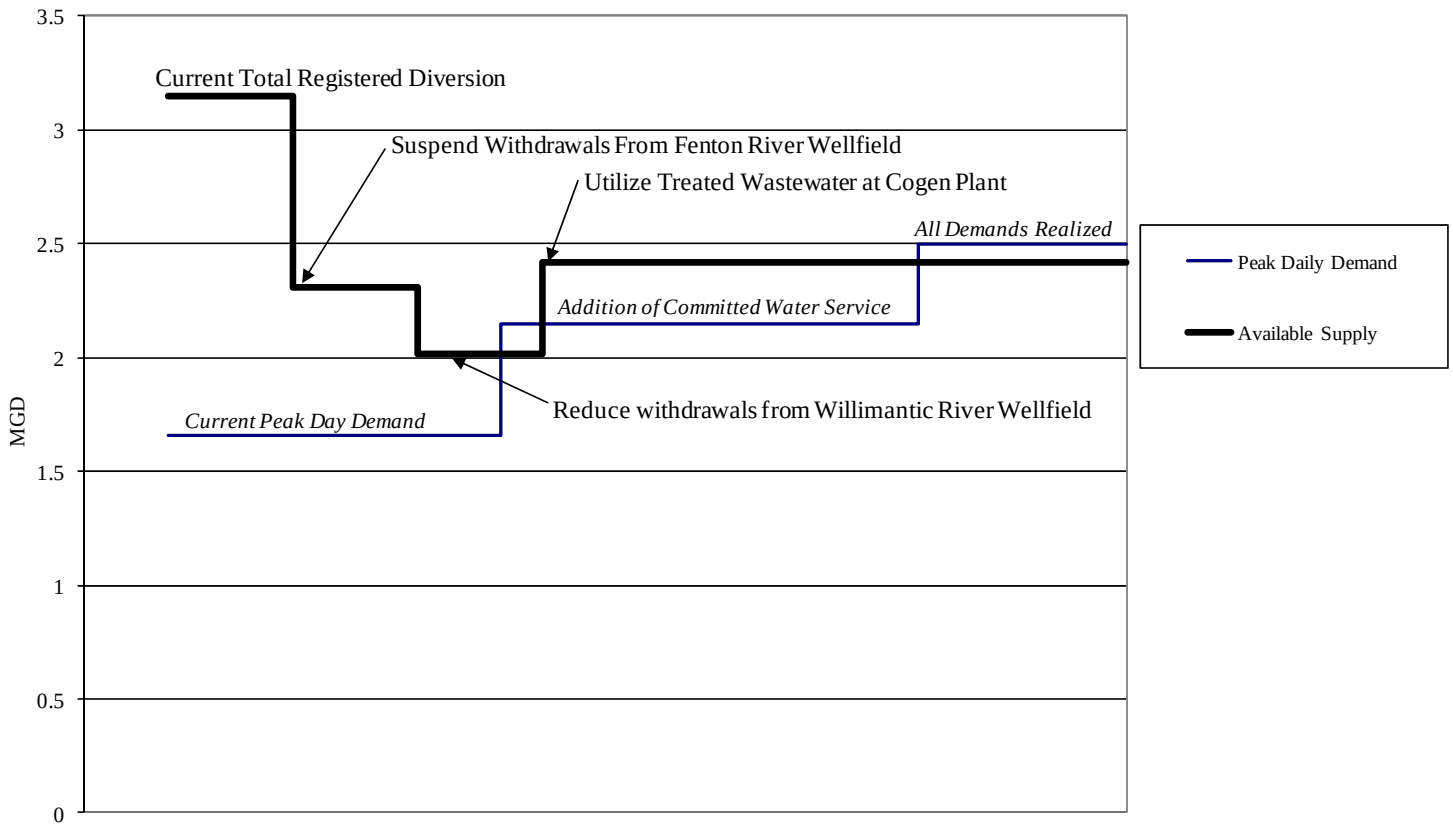
- New approach – can intermittently/temporarily curtail supply sources
- Affects how wellfields are operated and available supply

Potential Impact of Curtailment of Average Day Withdrawals



Potential Impact of Curtailment of Peak Withdrawals

Projected Peak Demand and Available Supply



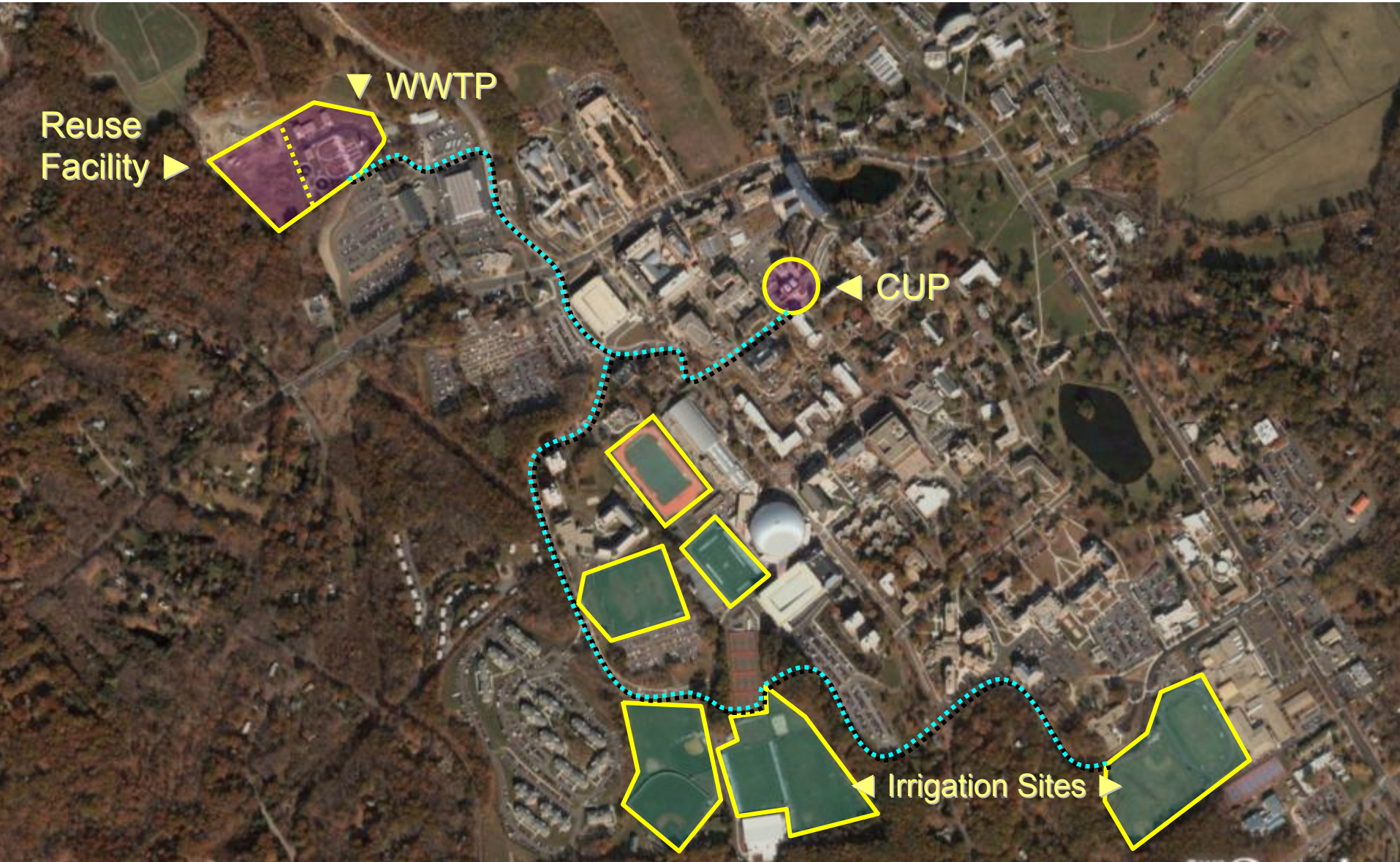
Options for Meeting Future Demands

- Conservation
- Responsible Development
- Reuse
- New Sources of Supply

Reuse Analysis

- Water Pollution Control Facility (WPCF)
- Central Utilities Plant (CUP)
- Irrigation
- Future use

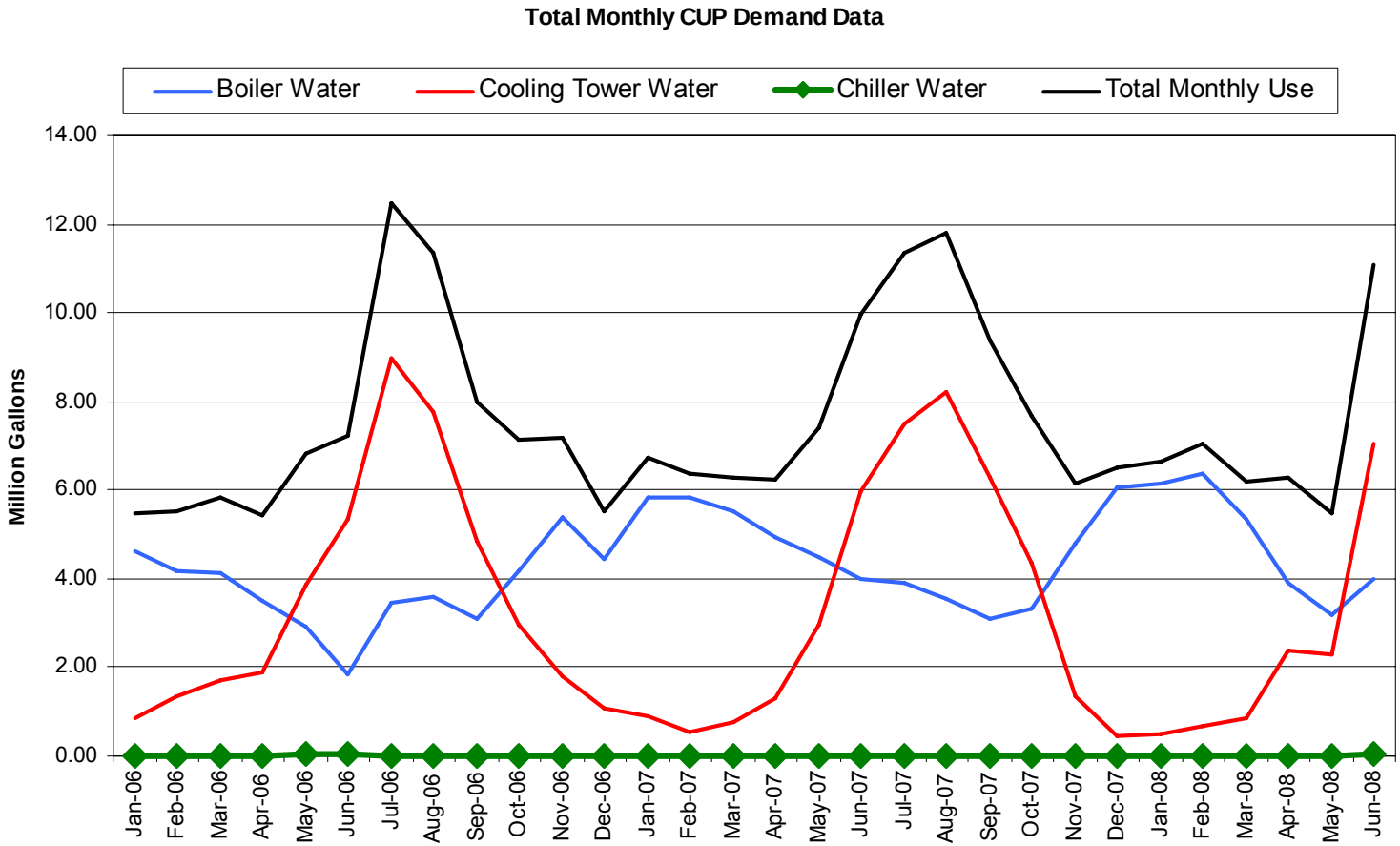
Campus Reclaimed Water Uses



Major Advance in Region

- Tertiary treatment
  - Microfiltration
  - Ultraviolet Disinfection
- Proven technology – regional examples
- Green solution – encouraged by CT DEP and CT DPH
- Potential future cost avoidance for current nitrogen and future phosphorous regulations
- Frees potable water for potable water demands

CUP Water Demand



Future Demand

- Work with Town of Mansfield and state regulatory authorities to identify practical, affordable and sustainable new sources of supply

- Options
  - Continued conservation emphasis
  - New wells
  - Interconnection