DOING OUR PART
WATER CONSERVATION IN LABS

Cornell's water use restriction is still in effect today. This restriction is necessary to ensure that Cornell and the region have enough clean water for basic services.

The Facts

- We are in the worst drought in Ithaca's recorded history, so it is up to every member of the campus to pitch in and conserve water.
- Cornell shares water resources with the City of Ithaca and other regional partners. We are all in this together and we must find creative solutions to reduce water use in our homes, halls and labs.
- Cornell needs to reduce its water use by 500,000 gallons a day.

How to Conserve

Everyone who works in labs must take the following actions, every day!

Sterilizers/Autoclaves: Autoclaves and sterilizers can use several hundred gallons of water every day. Be sure to turn off equipment when it is not in use. Only run full loads to maximize efficiency.

Ensure that your autoclave or sterilizer is outfitted with a water miser, which reduces the amount of cooling water by monitoring the temperature of the system and applying cold water only when needed. This can reduce a lab building's water consumption by 50 percent.

Washing glassware: Whether washing lab glass in a sink or in a glassware washer, make sure to do so efficiently and use appropriate quality water for each task. Use tap water for bulk rinsing of dirty glassware and use progressively purer water with each step, only as needed. If washing glassware in a sink, check that the faucet is outfitted with an aerator.

When replacing old glassware washers, choose a water and energy efficient model. It can save thousands of dollars in operating costs.

Use high purity (RO/DI) water judiciously: Every gallon of high purity RO (Reverse Osmosis) DI (Deionized) water requires three to five gallons of potable water to produce it.

Aspirators: Consider the use of oil-free membrane vacuum pumps in place of water faucet aspirators.

Vacuum pumps: Wet/liquid ring vacuum pumps use approximately 15 liters of water per minute. Use a dry vacuum pump instead.

Cooling water for lab equipment: Eliminate the use of potable water as a single-pass coolant (water from a faucet or valve that cools equipment and then flows down the drain). If your facility has a process cooling water system as most lab buildings do, investigate using that system. Otherwise, use a closed-loop portable chiller.

Keep an eye out for water leaks: Laboratories have several water sources, so keep a close eye out for water leaks and report them promptly to your Building Coordinator or Facilities Customer Service.

Additional Resources:

Green Labs / Water Conservation

https://sustainable.stanford.edu/cardinal-green/cardinal-green-labs/water-conservation

http://lbre.stanford.edu/sem/sites/all/lbre-shared/files/sem/files/shared/sem_Wastewater_BMP_FactSheet.pdf

http://www.colorado.edu/ecenter/sites/default/files/attached-files/cu_lab_water_conservation_2015_posted_on_web.pdf

More Information: sustainablecampus.cornell.edu/initiatives/drought-information

Water usage data for the campus, tips on conservation, and important updates

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