



Global Water Management Policy

PennEngineering®: Sustainability

PennEngineering recognizes water as one of the most critical resources to all life on our planet and the conservation of clean, fresh water a significant task for us all. This policy is to help manage how we:

- Use water, reducing our consumption
- Dispose of water, ensuring we keep it hazardous contaminant free
- Impact our local waterways, minimizing all forms of pollution and disruption (including heat)

This is a global policy covering all sites: manufacturing, distribution, and office. Each site's unique impacts should be considered in their own lens, but we must keep some high level goals in mind so that we are all working together to preserve this crucial resource.

This also is to serve as guidelines and recommendations for all in our supply chain, we recommend that they each take these to heart and implement similar policies. To that end, this document is not held behind a wall of intellectual property, but rather shared freely.

Lastly, we publish this on our website and offer others to freely reference or use these guidelines in the creation of their own. It is only together that we can make a true, profound difference in the world.

Governance, Responsibilities, and Records

Each site is responsible for monitoring its water consumption and discharge, as well as ensuring that the site is not negatively impacting the local waterways.

Site records **shall** be kept of (at least) monthly water usages and discharges. This should be as specific as possible with regard to what building and process used the water. More specificity allows for better analysis when looking for ways to reduce use and make a positive impact. Where possible water to/from a machine or process should be tracked; if that is not possible to a department or room; to a building; or to the whole site in order of preference.

For sites with well water, water quality **shall** also be measured monthly in accordance with local regulations and needs ensuring that the water supply meets local regulations.



Water Stewards

There **shall** be someone at each site appointed as a **Water Steward**. They will be responsible for tracking and recording the water usage per the guidelines below. The **Global Water Steward** will compile the data together to present a company-wide view of the water use. This wider view will focus on the manufacturing site as they will be the most relevant to track.

The monitoring of impact on the local water supply will also be the responsibility of the site Water Steward who will report any issues to the Global Water Steward. The specifics of this monitoring will be up to the site since unique requirements may be required for each site.

The sites' Water Stewards will also be responsible to ensure that all regional / local use and discharge permits, laws, and regulations are being followed, and any site audits required are executed.

It is strongly recommended that each site offers training and certification for the Water Steward and any backups to the Steward so that they stay aware of changes in legislation, permitting, and law as well as new technologies and developments that could benefit the site.

The Water Steward positions are not intended to be a full-time position, but are rather an additive task to another role (for example Plant Maintenance or EHS).

Water Usage & Efficiency Goals

Each site **shall** update the centralized company water use records monthly. This file is the "[WaterData.xlsx](#)" file located in the "Water Reporting" folder on the Environmental Sustainability SharePoint.

The Global Water Steward **shall** set company goals for water usage and discharge that will be distributed to each site in consultation with the sites. Each site's Water Steward **shall** track the site's progress to those goals which will become a tracked metric for the site. Usage and Discharge goals will be set after one year of monitored data has been collected and analyzed.

Water efficiency audits are not required, but strongly encouraged at each site.

Getting ISO 14046 (Alliance for Water Stewardship) is not required but should be considered at each site.

Sites should promote internally responsible water use both for employees' personal use and within the scope of their work. This should include both water use and what can safely be discharged. Together we should promote a culture of environmental conservation and accountability to which water use and discharge is only a part.

Each site may also have goals related to their impact on the local water supply as determined by the site's specific impact. These will be set and monitored by the site and reported to the Global Water Steward.

Risk Assessment & Management

Site Review

Each site will undertake a monthly monitoring of the site including a physical walk-through to identify leaks in the water supply and discharge. All identified leaks should be itemized and a plan to quickly address should be made. The leak and the plan should be shared with the plant manager who will ensure that any site resources needed to address the leak are provided.

Risk Assessment

Each site's contingency plan will include site water risks. The site's Climate Risk Analysis will also include links to these potential effects. These may include (but are not limited to) the following:

- Service interruption
- Discharge escapes
- Flooding
- Contamination of local waterways

The plant should have mitigation plans for each potential risk.

A site map of each facility identifying water stress indices is recommended, but not required.

Source Protection & Pollution Prevention

Water Supply

In no case may any site pollute the water supply (Ground Water or Surface Water). All necessary actions **must** be taken to prevent any breach that could lead to pollutants entering the water stream. Any escape must be reported immediately to the local authority, the Chief Legal Officer, and the Global Water Steward.

Untreated Effluents

In the same manner, any untreated effluents **must not** be discharged. Any escape must be reported immediately to the local authority, the Chief Legal Officer, and the Global Water Steward.

Continuous Improvement

Each plant should look to invest in water treatment and developing technologies to continually improve their water discharge. New technologies and techniques can be explored so that we can continue to be on the forefront of water stewardship. Ideas and projects should be shared with the Global Environmental Council so that we can together learn and offer help and advice to elevate PennEngineering's water programs.

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