Minneapolis Water Treatment & Distribution Services, Columbia Heights

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Organization
Minneapolis Water Treatment & Distribution Services provides potable water from the Mississippi River to the Minneapolis area.

Intern Project
Reduce chemical usage for waste neutralization at the Columbia Heights Membrane Plant.

Incentives to Change
Neutralized waste ultimately flows back into river; reducing chemical additions improves water quality reducing the facility’s impact on the river. Reducing usage of neutralization chemicals reduces costs for chemicals.

Solutions

Implement self-neutralization:
Mix two types of waste together to partially neutralize each other so less of the raw neutralization chemicals need to be added.

Recalibrate Neutralization Chemical Pumps:
Recalibration of pumps to the same flow rate will provide a consistent delivery of chemicals and avoid overshoots.

Maintain Neutralization Tank:
Continuous maintenance to remove blockages and build-ups, ensure the mixing system is performing optimally.