

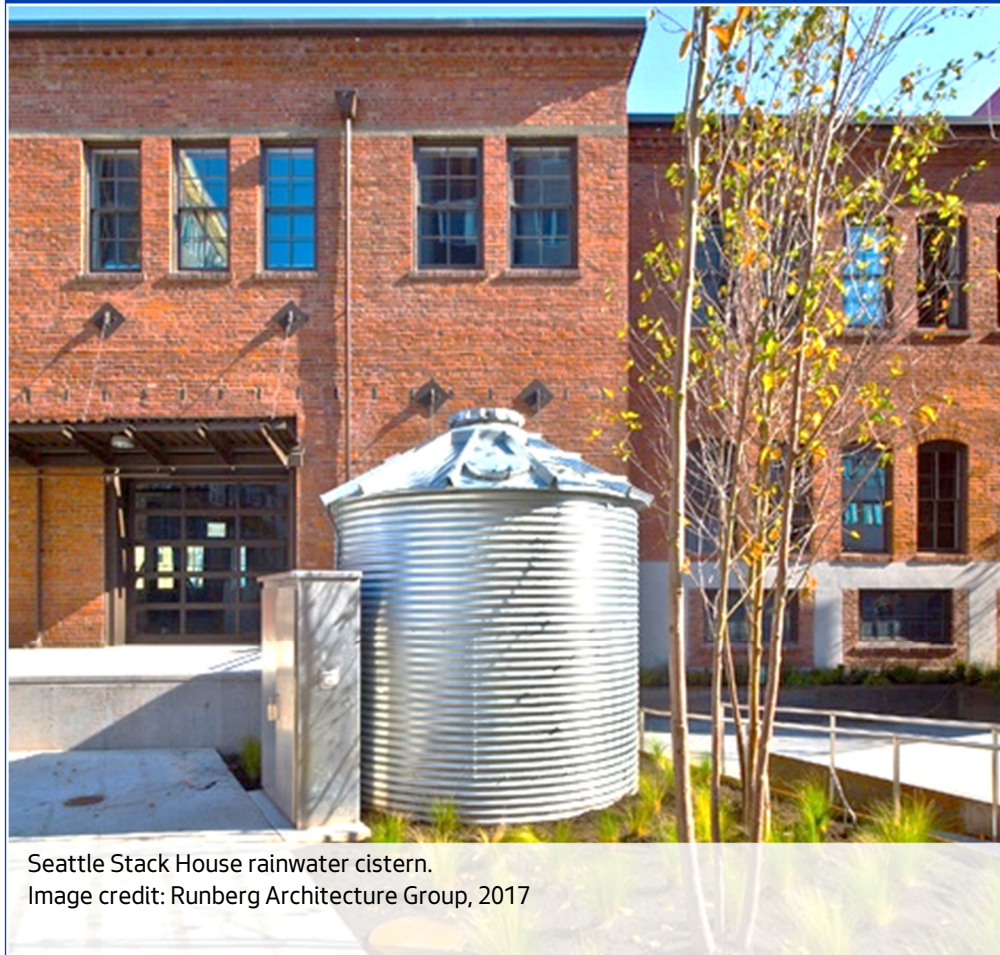


NON-POTABLE WATER REUSE

Solutions Toolbox Factsheet

Non-potable water is water not meant for drinking. However, if treated properly it can be safely used for other purposes such as irrigation, toilet flushing, heating, and cooling. Non-potable water reuse systems collect and treat water from sources like rainwater, stormwater, graywater (water from sinks, showers, or laundry), or wastewater so they can be reused in individual buildings or across multiple buildings for non-potable purposes. Non-potable water reuse is a One Water strategy that can reduce reliance on the drinking water supply and allow sites to manage water resources more sustainably and resiliently.

EXAMPLE



Seattle Stack House rainwater cistern.
Image credit: Runberg Architecture Group, 2017

TOOL OVERVIEW



PRIMARY DRAINAGE & WASTEWATER BENEFITS

- **System capacity:** reduces the amount of water entering the conveyance system
- **Water quality:** reduces pollutants released to natural water bodies
- **Climate adaptation & resilience:** improves potable water resilience by decreasing the amount of water used: reduces flooding, sewer backups, and combined sewer overflows



DESIGN CONSIDERATIONS

- Existing building codes may limit how water can be reused
- Subject to city/state water quality standards
- Evaluate current and projected water and energy demands for project site
- Seek partnership opportunities to pool resources and match alternate water sources with appropriate end uses



MAINTENANCE CONSIDERATIONS

- Maintenance activities and schedule are system-specific - manufacturers often provide training manuals and programs
- Compliance with city/state monitoring, testing, and reporting standards
- Maintenance responsibility can be complex for assets owned by multiple parties

CASE STUDY

Stack House Apartments - Seattle, WA

This mixed-use residential building complex has a district-scale rainwater capture system that holds approximately 43,000 gallons of water used to irrigate landscape and green roofs, saving about 450 gallons of potable water per day.

Bullitt Center - Seattle, WA

For more information about these case studies, visit www.ShapeOurWater.org/Solutions.

TOOL CO-BENEFITS

open/green space & habitat	<input type="checkbox"/>
air quality	<input type="checkbox"/>
water supply & conservation	<input checked="" type="checkbox"/>
environmental sustainability	<input checked="" type="checkbox"/>
hazard & climate resilience	<input checked="" type="checkbox"/>
economic resilience	<input checked="" type="checkbox"/>
align with other investments	<input type="checkbox"/>
equity opportunity	<input checked="" type="checkbox"/>
community collaboration & ownership opportunity	<input checked="" type="checkbox"/>
multi-benefit community amenity	<input checked="" type="checkbox"/>
public education opportunity	<input checked="" type="checkbox"/>
public health & safety	<input checked="" type="checkbox"/>
minimal construction impacts	<input type="checkbox"/>

IMPLEMENTATION CONSIDERATIONS



APPLICATION

- **Scale:** site, neighborhood, district
- **Where & when:** parcel, new development, redevelopment, retrofit
- **Compatibility with other tools:** cisterns, green roofs, storage facilities



SPU ROLES

- Build partnerships
- Capital project delivery
- Code development & enforcement
- Incentives for private projects
- Program development, non-capital



POTENTIAL PARTNERS

- City agencies (DPH,OPCD, OSE)
- Developers
- State agencies (DOH)