



Onsite Water Recycling in San Francisco

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San Francisco Public Utilities Commission
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Embracing OneWater Approach in San Francisco

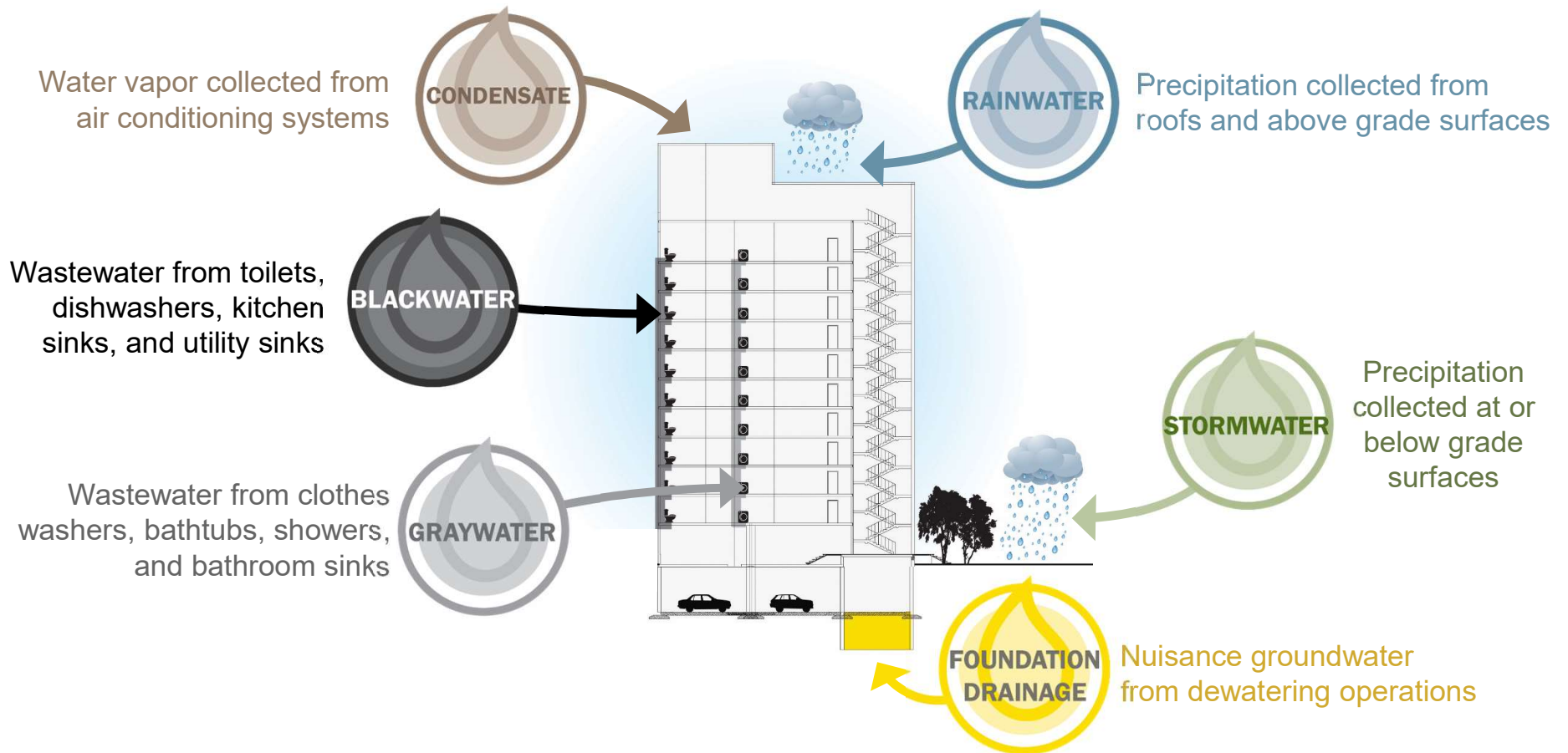
Traditional linear “resources in/waste out” approach



OneWaterSF approach recognizes resource potential across water, energy, and wastewater boundaries



Adapting Our Water System with Onsite Water Recycling

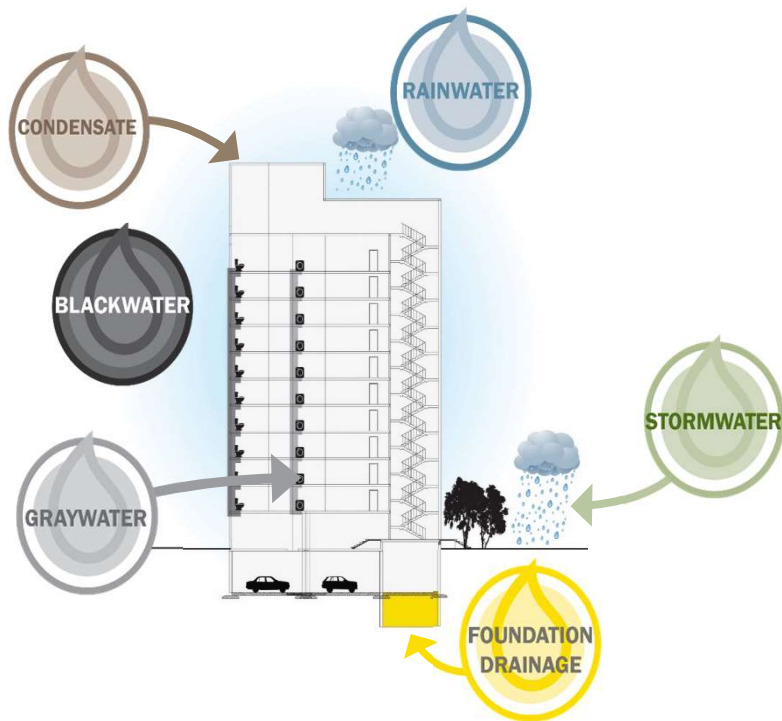




SF Ordinance Established Oversight and Streamlined Process

SFPUC	SFDPH-EH	SFDBI	SFPW
Program Administration and Cross-Connection Control	Public Health	Construction	Right of Way and Mapping
<p>Review onsite non-potable water supplies & demands</p> <p>Administer citywide project tracking & annual potable offset achieved</p> <p>Provide technical support & outreach to developers</p> <p>Manages Cross-Connection Control Program</p>	<p>Issue water quality & monitoring requirements</p> <p>Review and approve non-potable engineering report</p> <p>Issue permit to operate onsite systems</p> <p>Review water quality reporting</p>	<p>Conduct Plumbing Plan check and issue Plumbing Permit</p> <p>Inspect and approve system installations</p>	<p>Issue Encroachment Permits as needed for infrastructure in the Right-of-Way (if needed)</p> <p>Includes condition on a subdivision map or a parcel map requiring compliance with the Non-potable Ordinance prior to approval and issuance of said map (if applicable)</p>

SF Non-potable Water Ordinance Requirements



- Requires the collection, treatment, and use of graywater and/or blackwater for non-potable uses in new buildings (rainwater not required)
- Applies to new developments 100,000 gsf or greater (building or district scale)
- Buildings that are 100% commercial to reuse all blackwater, not just graywater, onsite
- Multi-family residential and mixed-use buildings to meet clothes washing demands in addition to toilet flushing and irrigation demand

Current Program Status



- Onsite Water Reuse Program in place since 2012, became mandatory requirement in 2015
- 40 operating onsite water treatment systems
- 9 operating graywater systems, 18 additional graywater in planning
- 6 blackwater systems in planning
- Projected 1.5 MGD of water savings from onsite systems by 2040



Evolving and Improving Program

- Develop new guidance, case studies, webinars
- Risk-based water quality standards
- SB 966 regulations
- Purified water at a commercial building scale- testing at SFPUC headquarters
- Single family water recycling technologies
- Encourage brewery process water reuse and industrial water recycling



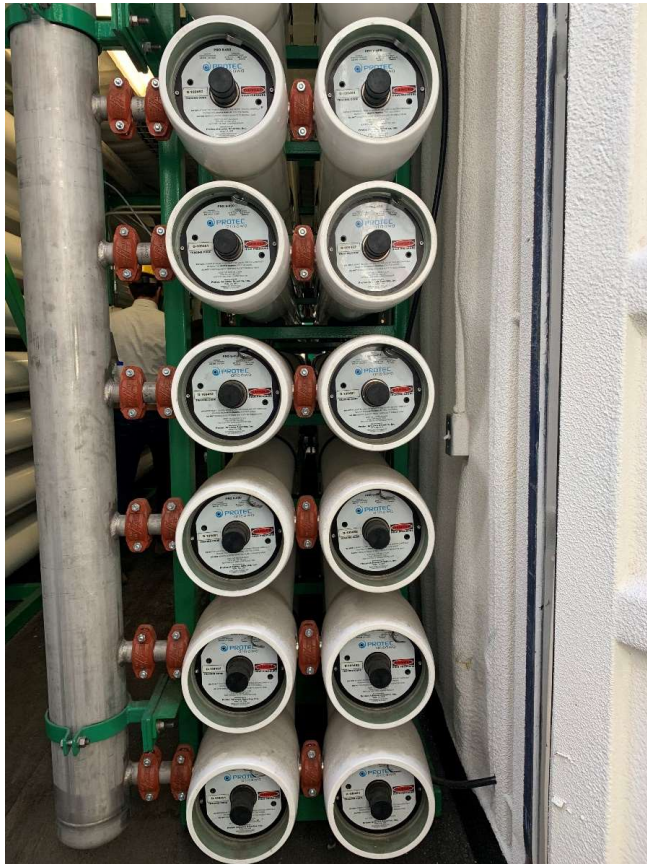
Onsite Water Reuse Grant Program

- Incentivizing onsite water recycling by offering financial assistance to offset capital costs
- Offering grants to pilot wastewater heat recovery for energy recovery onsite
- 6 total grant projects

Estimated SFPUC Water Offset (gallons per year for 10 years)	Grant Funding Available
$\geq 450,000^1$	Up to \$200,000
$\geq 1,000,000^1$	Up to \$500,000
$\geq 3,000,000^1$	Up to \$1,000,000

¹ For Above and Beyond Projects, the estimated SFPUC Water Offset must be achieved above and beyond Baseline NPO Compliance to be eligible for grant funding.

ECSF-BART Foundation Drainage Project



- First large-scale industrial water recycling project in SF
- Project received \$500K grant from SFPUC
- 2021: Saved 32.4 MG of potable water
- 2022: Saved 30.1 MG of potable water

Thank You

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www.sfpuc.org/npo

www.watereuse.org/nbrc

