

# What is the problem we're trying to solve?

Provide all residents with quality drinking water and effective wastewater systems

*Metric: Change in employment rate for high demand occupations / Data source: US Bureau of Labor Statistics*



GOAL



PROBLEM HYPOTHESIS



ROOT CAUSES



STRATEGIES



POLICY LEVERS

## LACK OF ACCESS TO SYSTEMS

Low access to community sewer systems (~80%)

- Create affordability programs to ensure that low-income and vulnerable communities have access to community systems and are not burdened by rate increases
- Expand options for service delivery and management and small-system service areas and consolidate service areas

Subsidies and grants

## SUPPLY RISKS

Shifting demand for drinking water due to climate and population changes

- Incorporate geographically specific projected impacts of climate change into wastewater infrastructure planning and long-term funding decisions
- Forecast future demand based on demographic projections and act ahead of time

Forecasting and budgeting

Increased drought frequency and intensity and seasonal supply reduction

- Raise awareness on uses of water and promote better and more efficient use

Awareness campaigns

## INADEQUATE LEVEL OF SERVICE

Wastewater disposal without adequate treatment

- Rebuild existing systems and develop more resilience, maintenance, and oversight

Targeted investment

Reactive and insufficient maintenance

- Find and develop the next generation of water sector workforce
- Implement proactive maintenance plans

Skills and knowledge/ Standards and regulations

Overflows in combined systems

- Increase investment in deep tunnels and pumping systems

Targeted investment

## DEFICIENT INFRASTRUCTURE

Aging or obsolete infrastructure and plants

- Implement asset management practices across infrastructure sectors to extend the lifespan of assets
- Ensure financial sustainability of local water and sewer systems
- Expand programs and identify new grant programs and funding mechanisms

Targeted investment

Lack of political support and coordination (invisible systems)

- Increase collaboration between researchers, wastewater utilities operators, and decision-makers to develop and quickly deploy effective regulations, systems and policies

Targeted investment

# What are you trying to accomplish? (and how will you know?)

