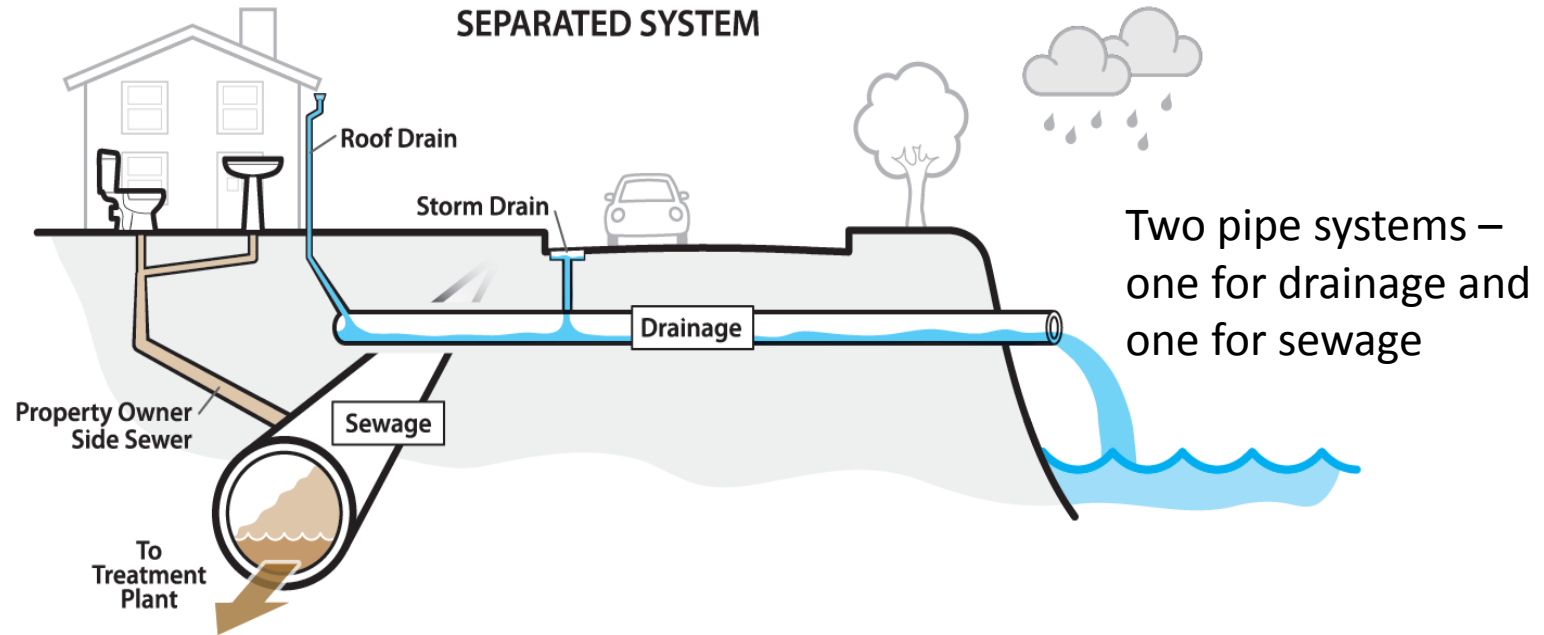
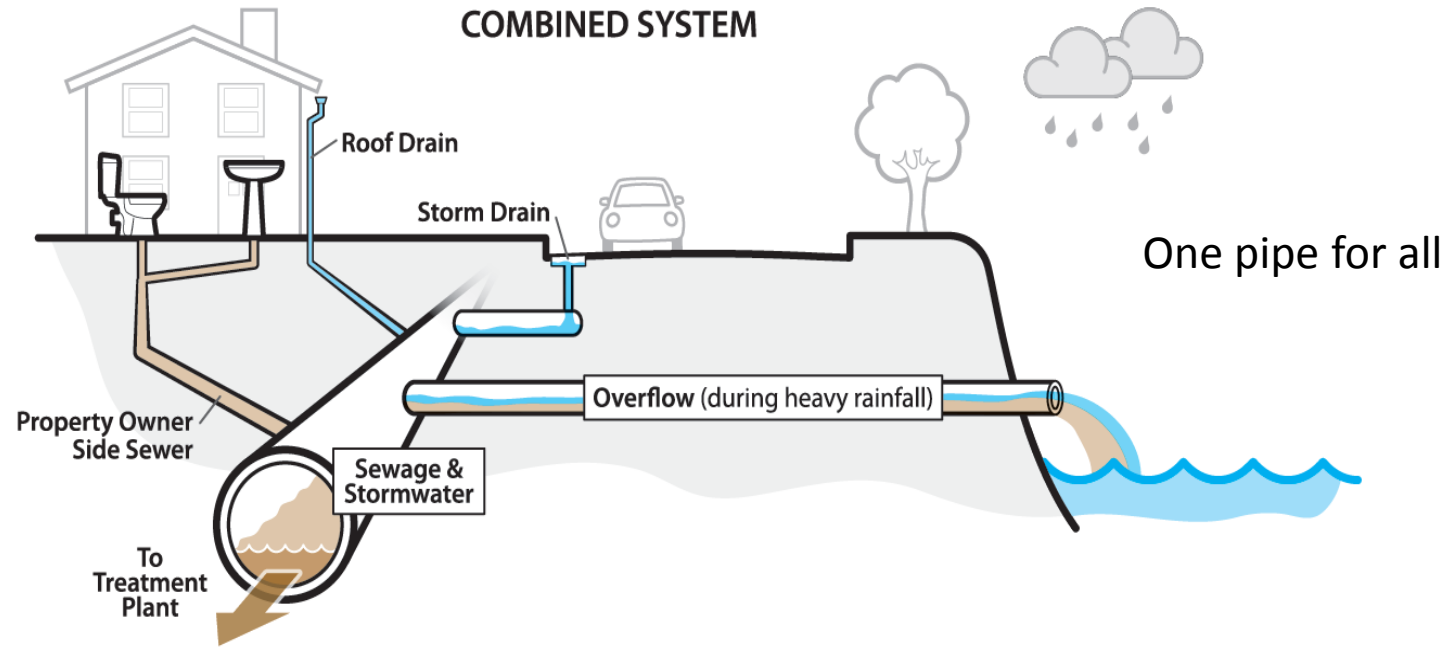


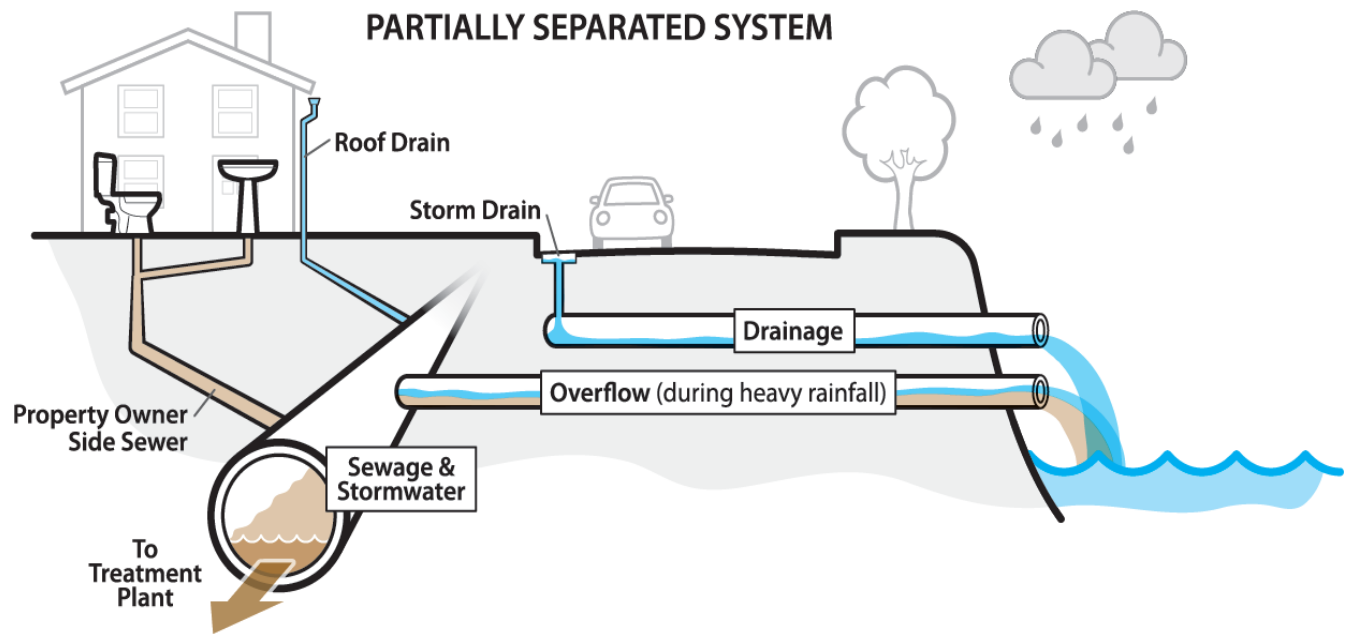
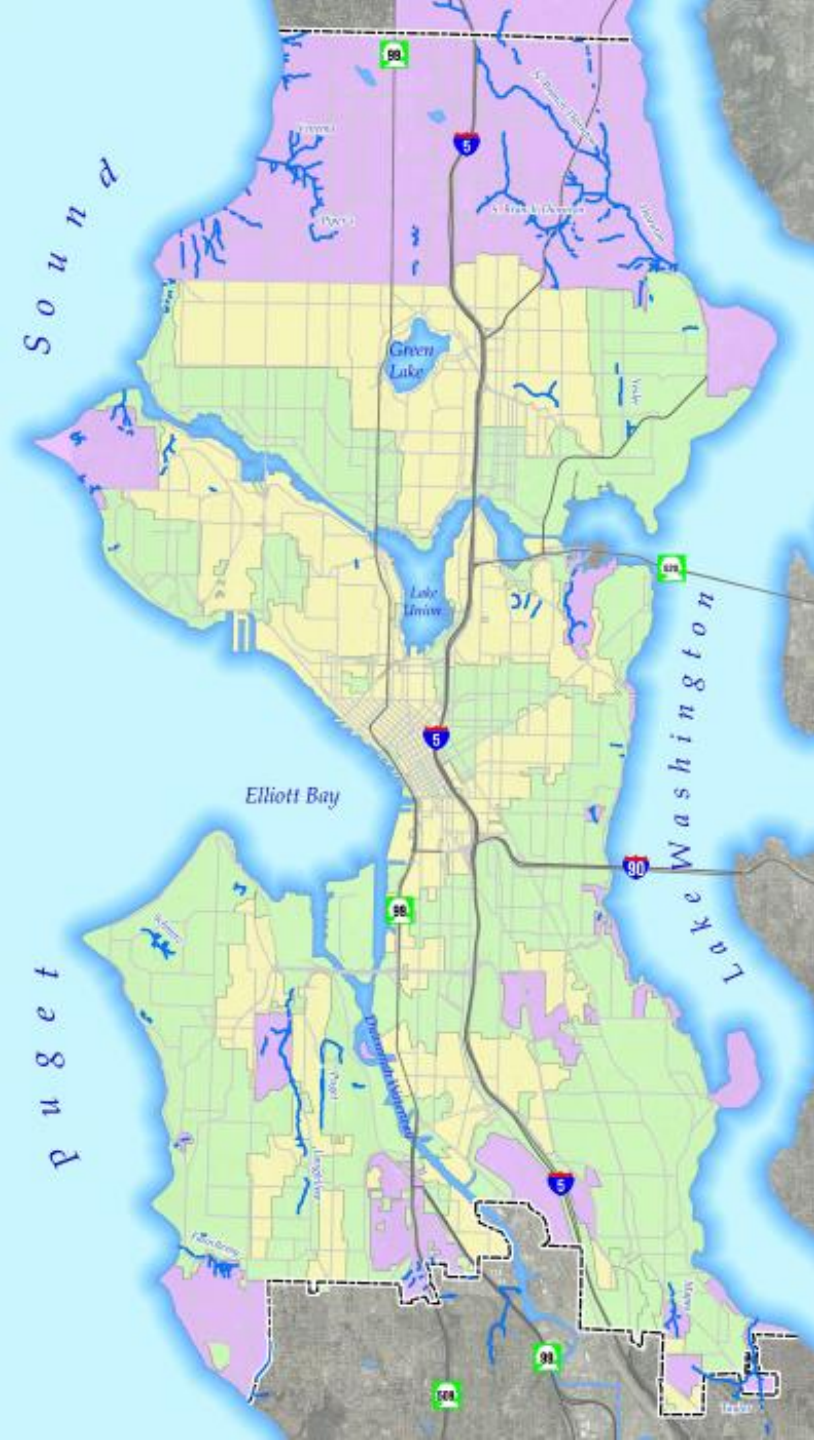
# **SPU's Drainage and Wastewater Integrated System Planning Overview**

*Leslie Webster,*

*DWW System Planning Program Manager*

*January 2018*

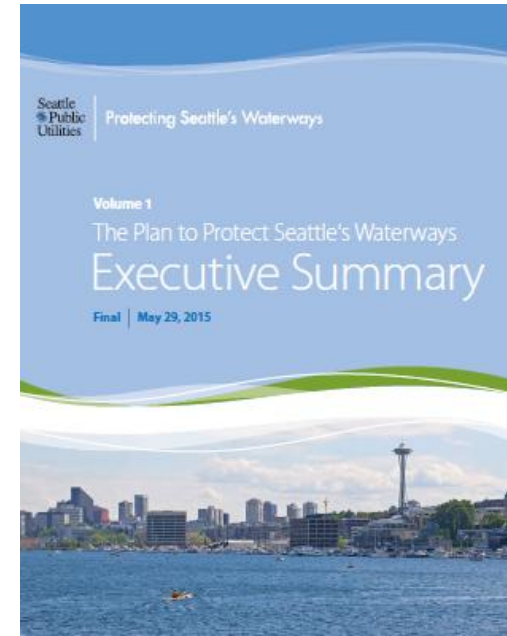
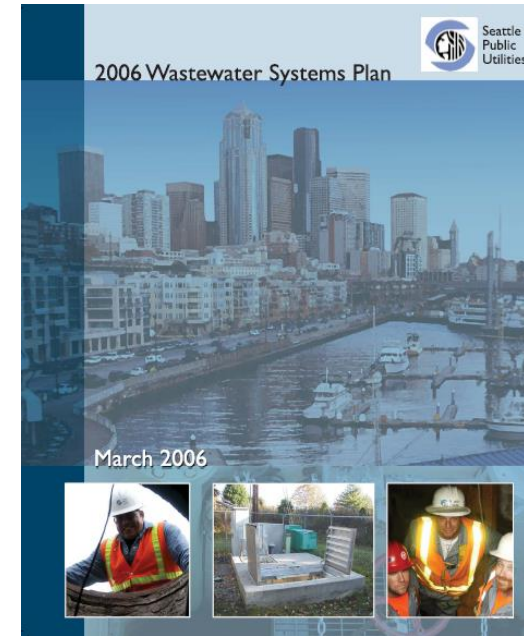
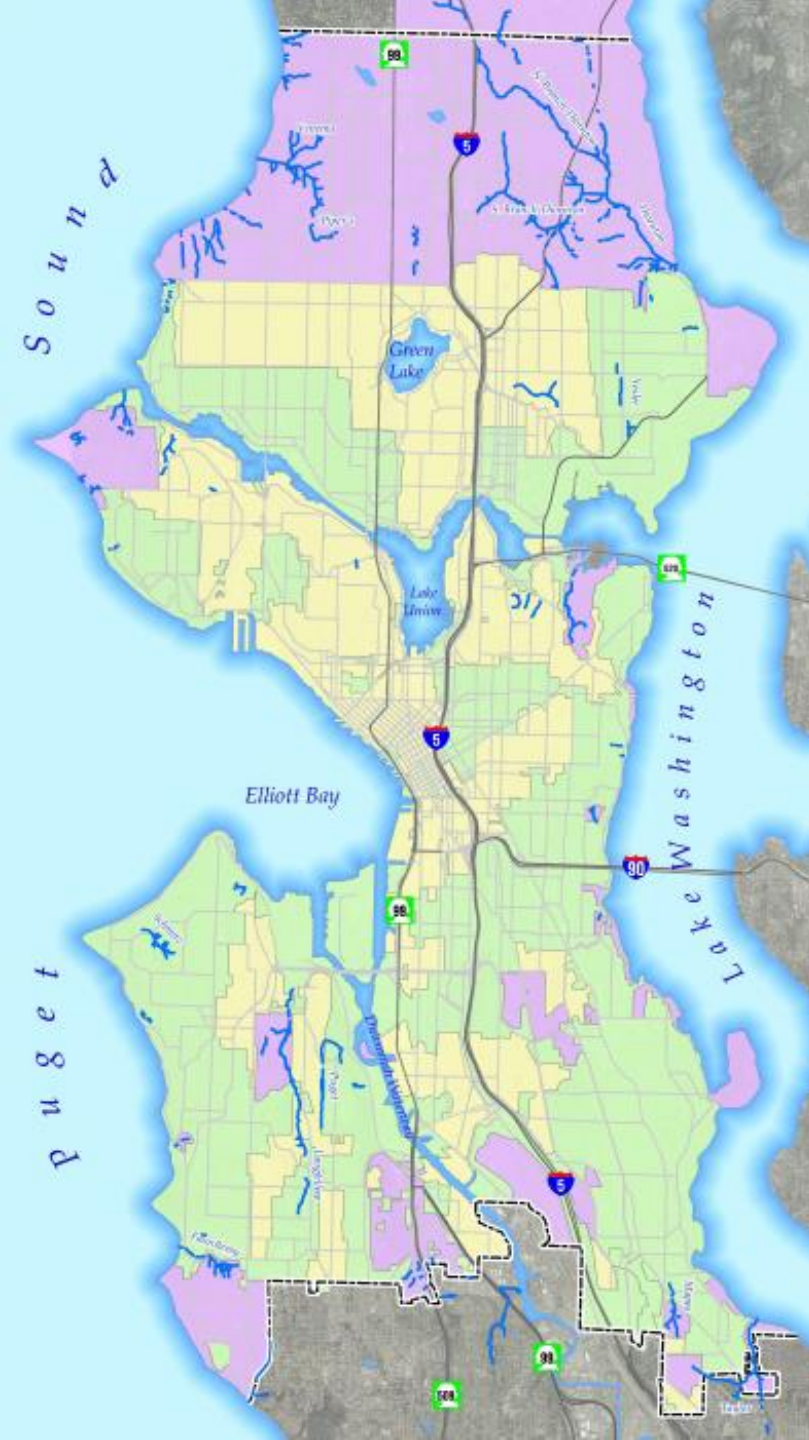




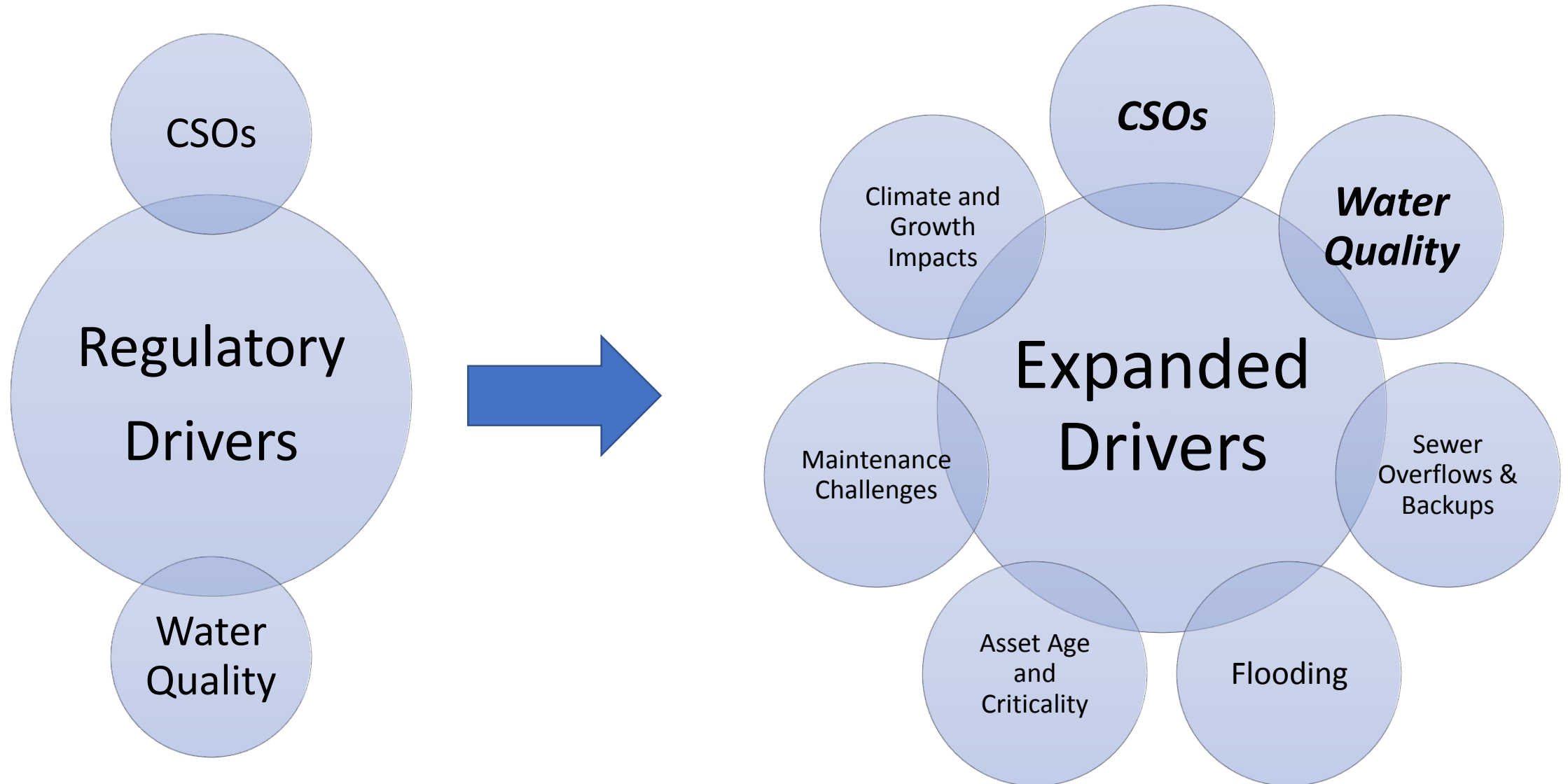
Two pipe systems – one for some drainage and one for sewage

# Past DWW System Planning Efforts

- *2004 Comprehensive Drainage Plan*
- *2006 Wastewater Systems Plan*
- *2015 Plan to Protect Seattle's Waterways (Integrating CSO & Water Quality)*



# DWW Integrated Planning – Expanded Drivers

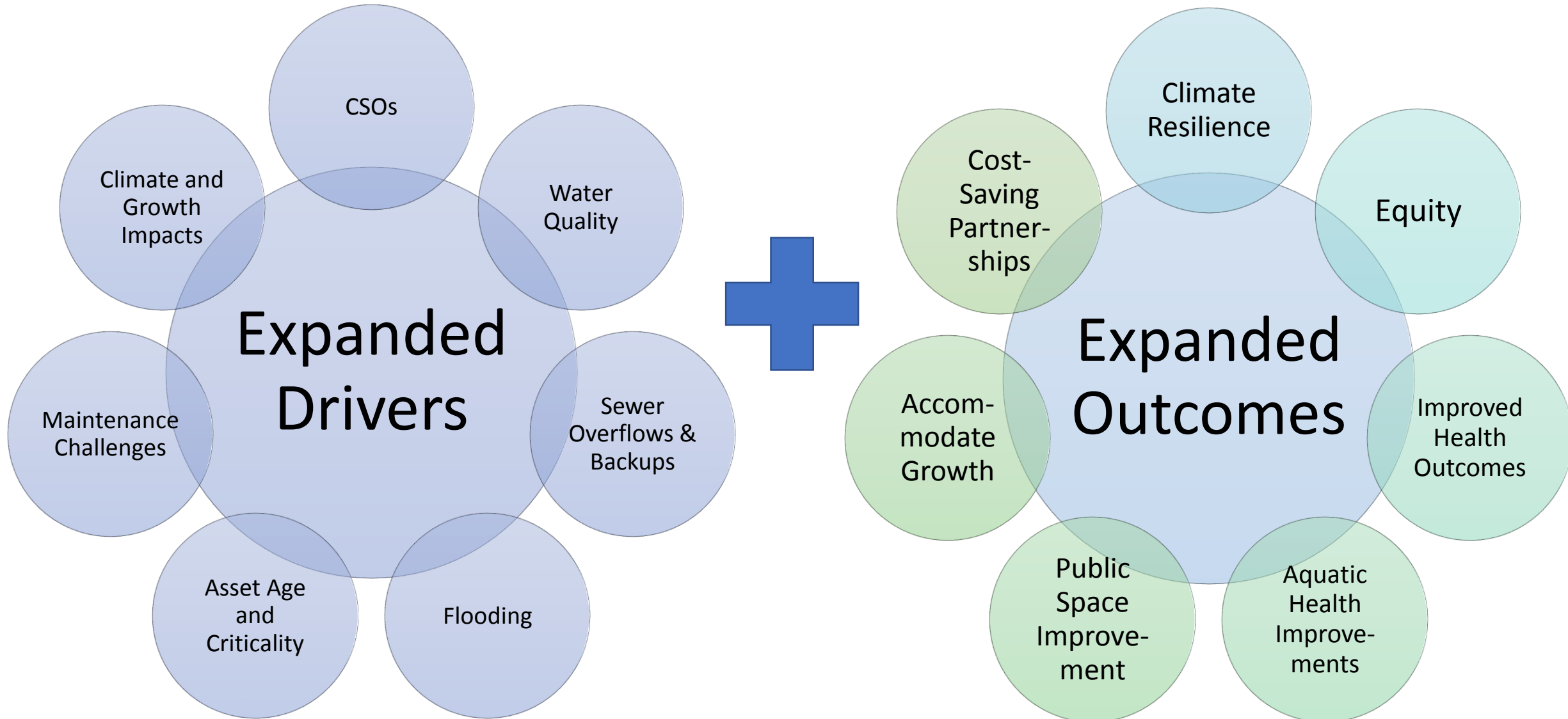


# DWW Integrated Planning – Expanded Outcomes

## *SPU: a Community-Centered Utility*

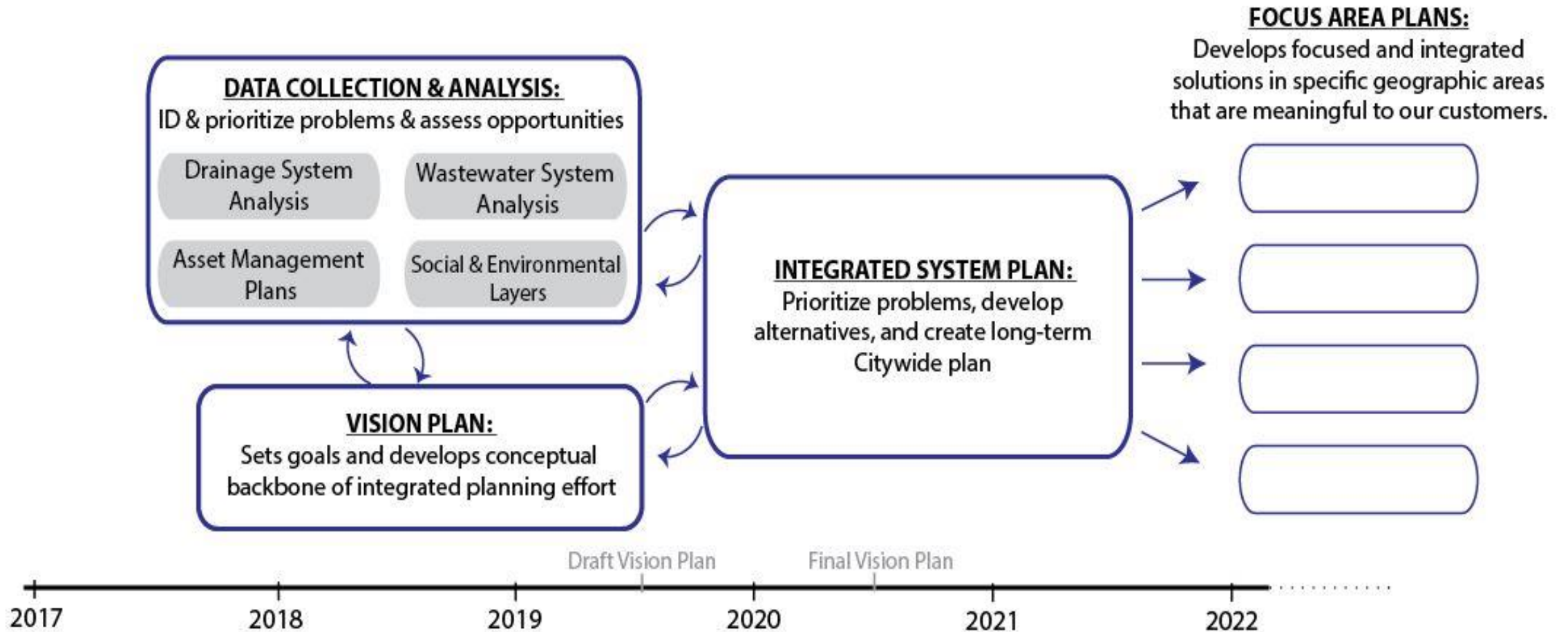
- *Achieving excellence in core service delivery*
- *Increasing affordability and accountability*
- *Improving investment value*
- *Enhancing public health and environment*
- *Ensuring service and racial equity and inclusion*
- *Expanding impact through strong partnerships*

# DWW Integrated Planning – Expanding Outcomes



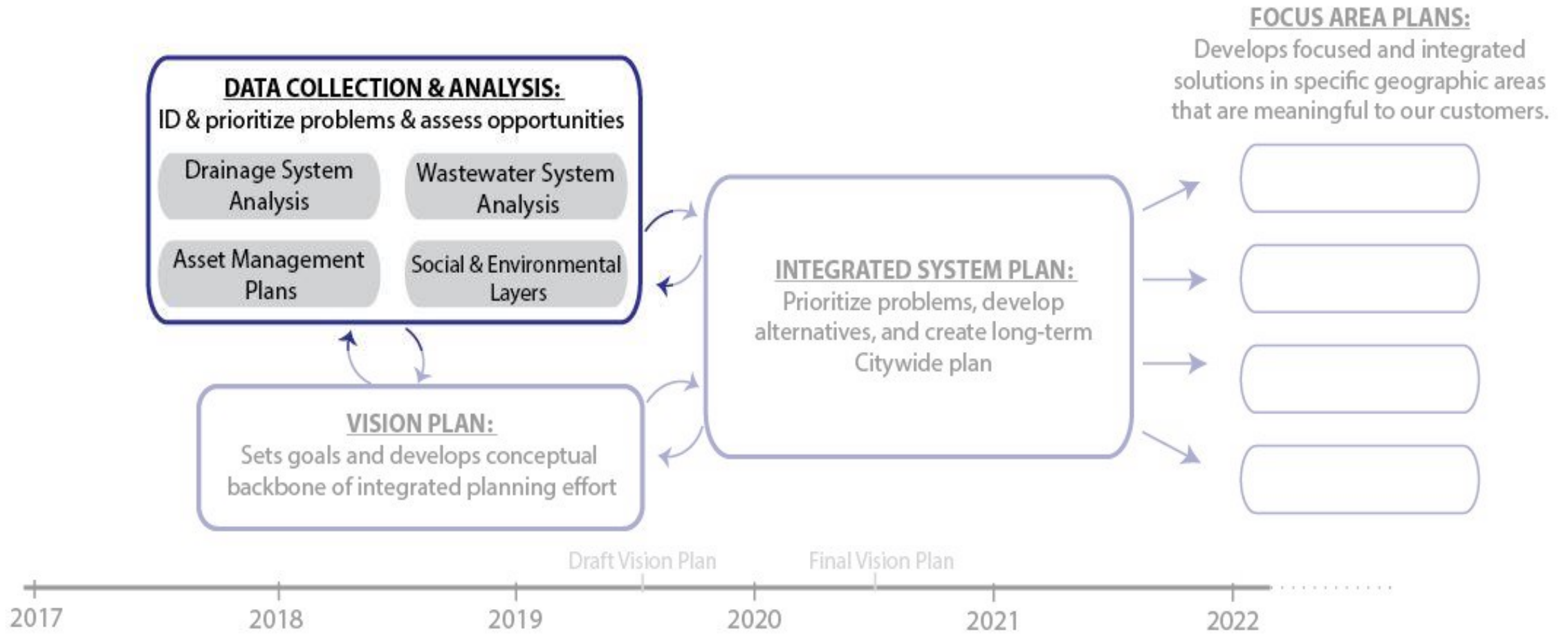
# DWW Integrated System Planning - Overview

*Goal: Direct investment in Seattle's drainage and wastewater systems while providing the greatest community value through multiple benefits*





# Data Collection and Analysis



# Data Collection and Analysis

## Drainage System Analysis

- Flooding
- Water Quality and Creek Flow
- Fish Passage Barriers
- Floodplain Reconnection
- Aquatic Habitat
- Landslide Mitigation
- Surfacing Groundwater

## Wastewater System Analysis


- Sewer Backups and Overflows

## Social and Environmental Systems Analysis

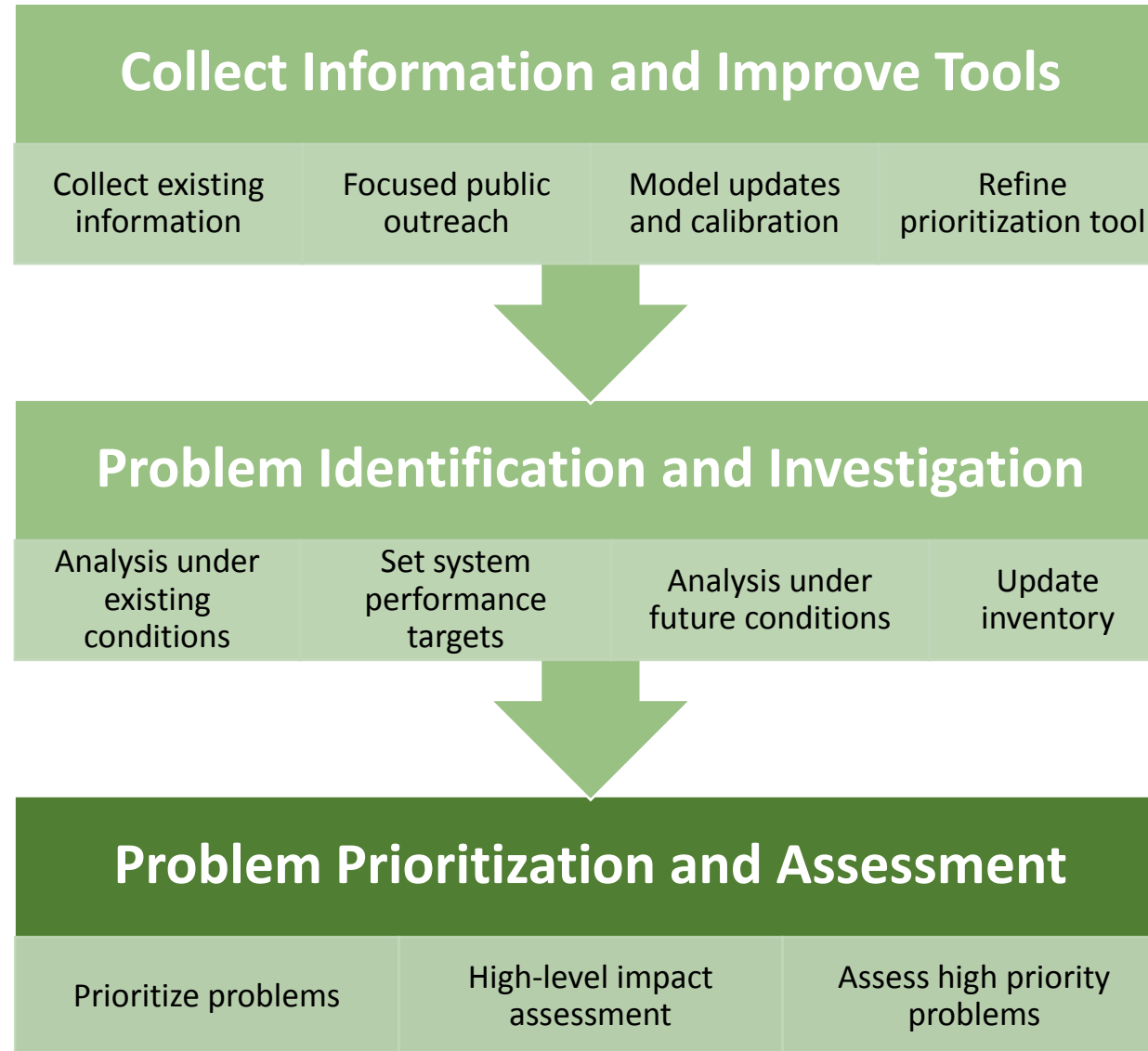
- Racial Equity and Health
- Racial Equity and Wealth
- Environmental Characteristics
- Parks and Open Space Needs
- Growth and Development
- Partnership Opportunities

## Asset Management Plans

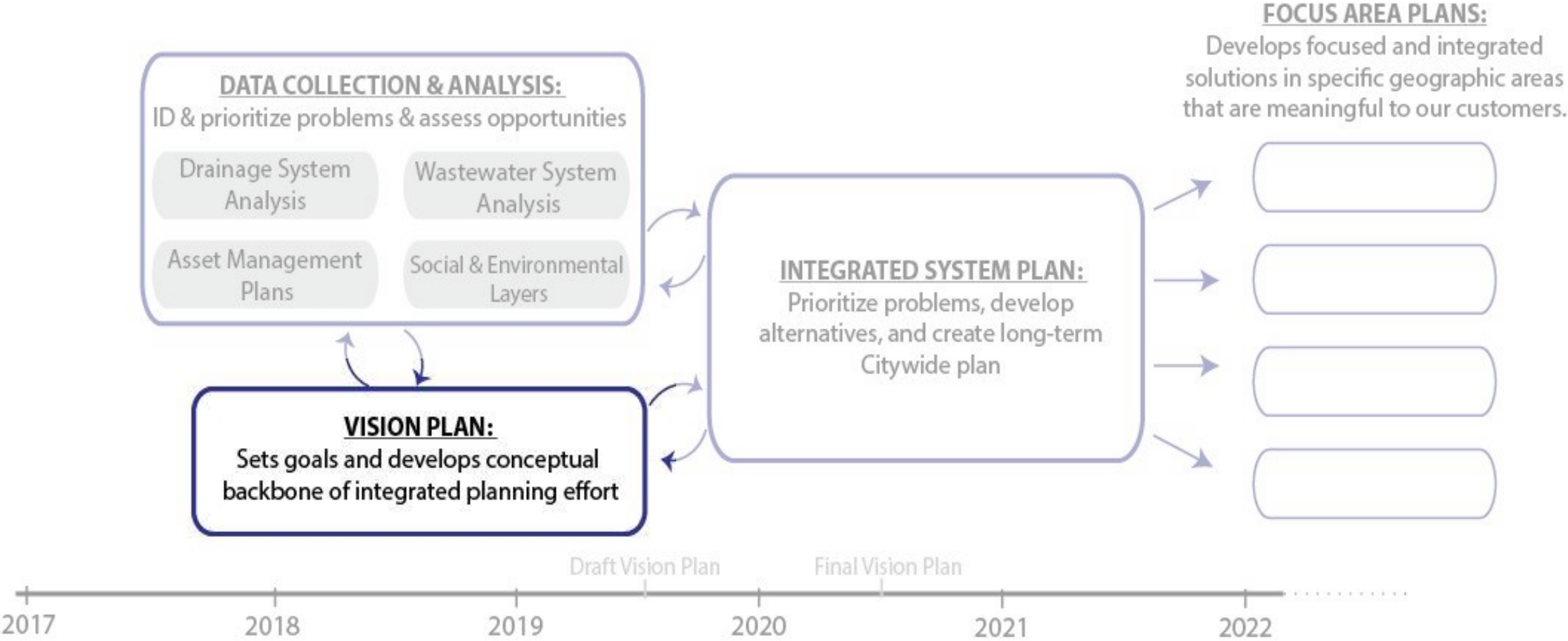
- Asset Condition & Criticality
- R&R Strategies
- O&M Strategies

- 
- Climate Change Impacts
  - Development Impacts
  - System Layout Challenges

# Analysis Approach: Flooding and WW Capacity



# DWW “Vision” Plan



# DWW “Vision” Plan

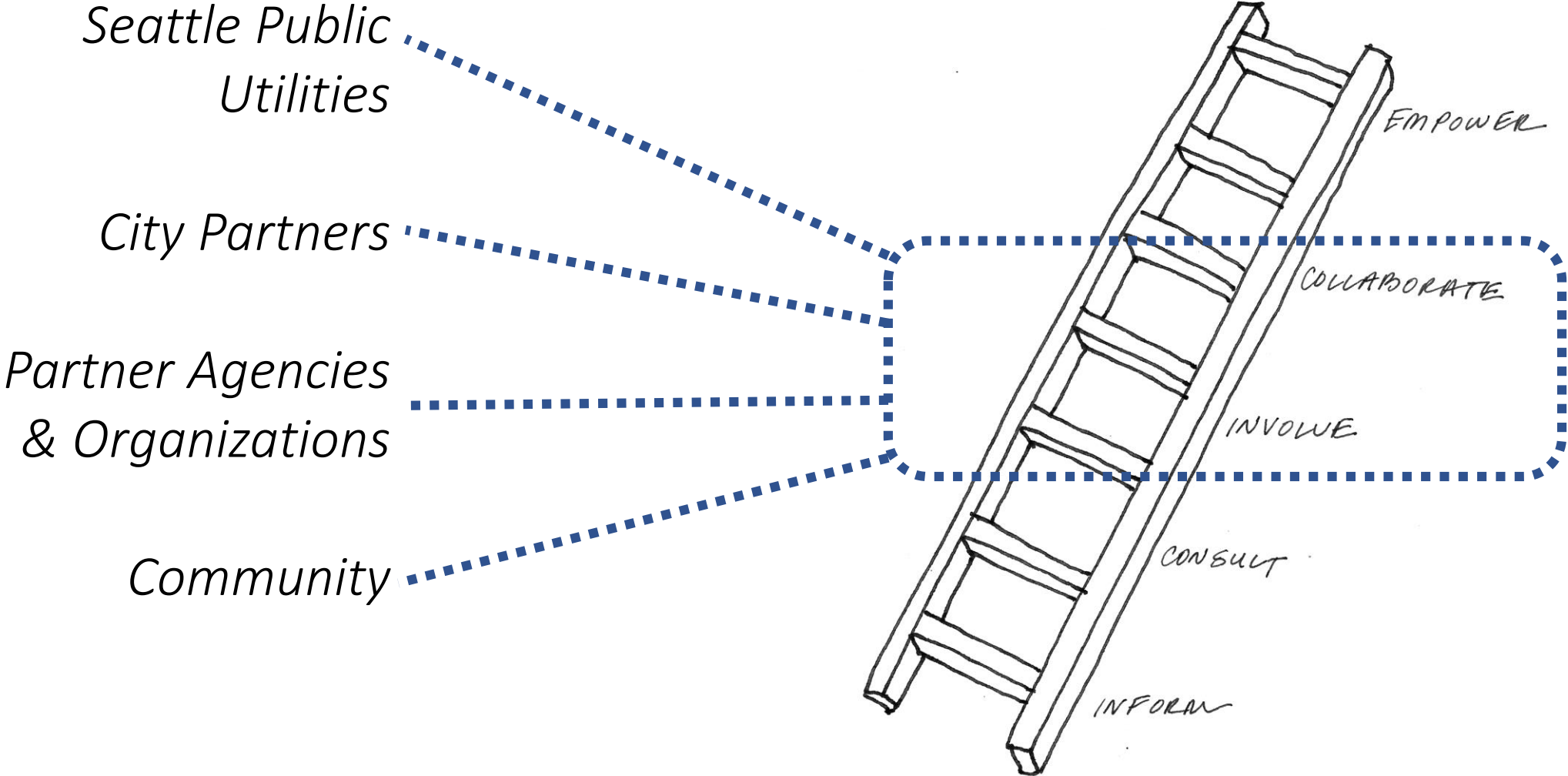
*Sets goals and develops the conceptual backbone of the planning effort*

## *SPU: a Community-Centered Utility*

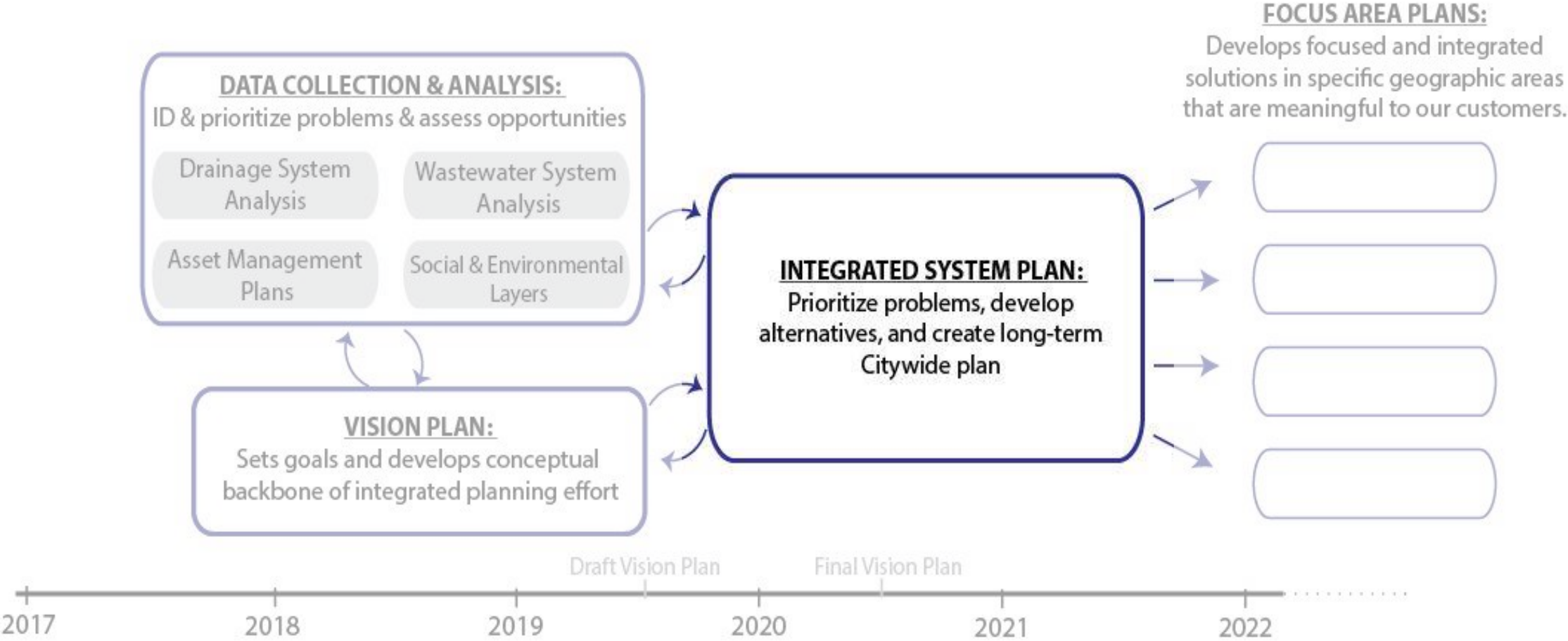
- *Achieving excellence in core service delivery*
- *Increasing affordability and accountability*
- *Improving investment value*
- *Enhancing public health and environment*
- *Ensuring service and racial equity and inclusion*
- *Expanding impact through strong partnerships*

*Vision, goals, objectives, guiding principles, and measures of success specific to DWW LOB to guide long-range planning and investment*

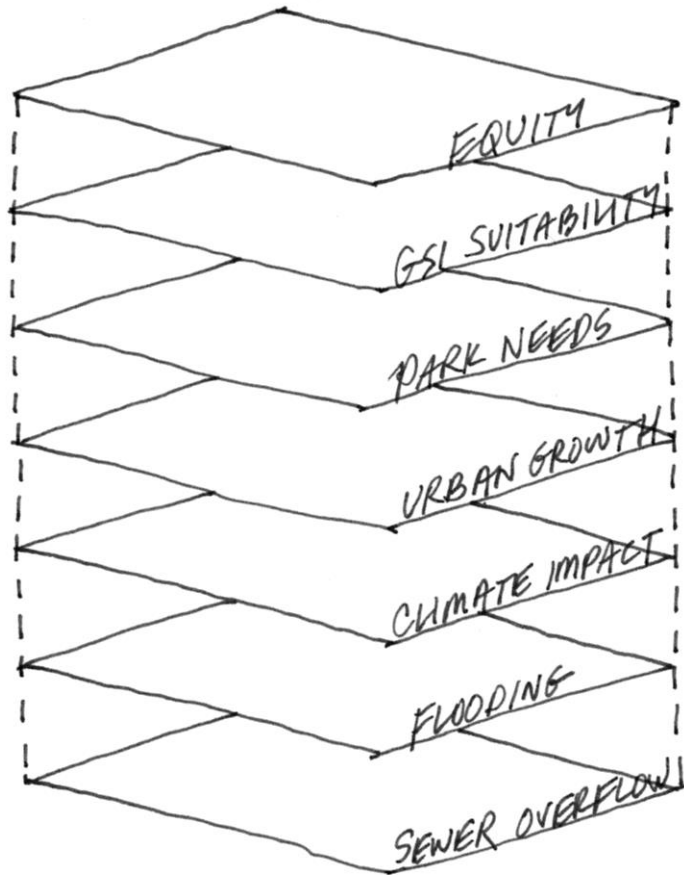
# DWW "Vision" Plan



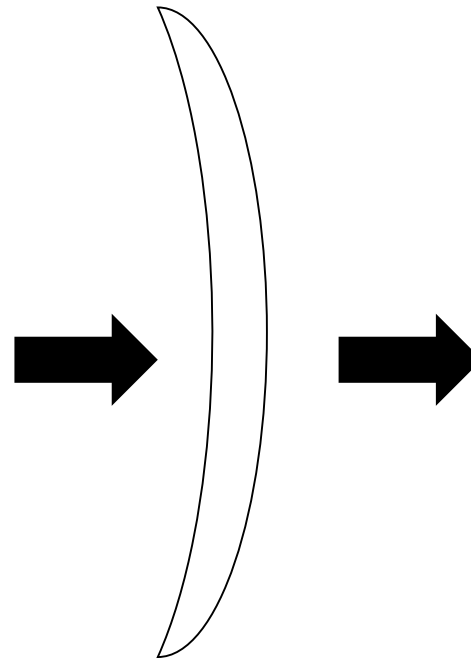
# DWW Integrated System Plan



# DWW Integrated System Plan



**Analysis Layers**



**Vision Plan**

*Develop and assess  
**capital and  
programmatic solutions**  
to high-priority  
problems that deliver  
multiple benefits.*



# DWW Integrated System Plan

## **Cross Issue Prioritization**

- Prioritize opportunities and challenges across problem types

## **Develop Alternatives**

- Develop citywide alternatives that solve high-priority problems with multi-benefit solutions

## **Alternative Evaluation**

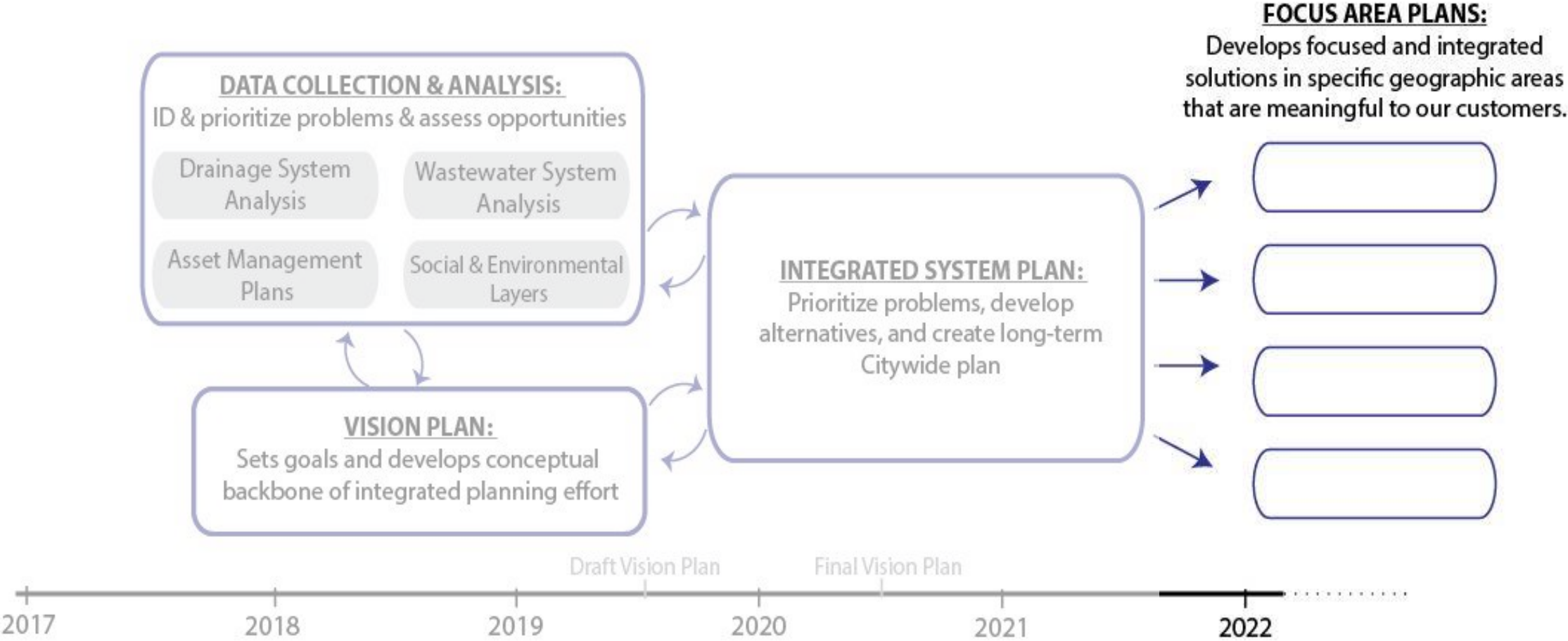
- Evaluate alternatives using the Triple Bottom Line – accounting for social, environmental and financial costs and benefits.

## **Select a Preferred Alternative and Develop an Implementation Plan**

# DWW Ranking Criteria

		Weights
<b>Public Health, Safety and Environmental Impacts</b>		<b>43</b>
Location of impacts	Polluted discharges to receiving water bodies	14
	High flows to creeks and wetlands	8
	Discharges to streets or properties	7
Severity of Impacts		8
Frequency of Impacts		7
<b>System Reliability/Risk</b>		<b>35</b>
Criticality		13
Condition		13
Operational efficiency		8
<b>Opportunities</b>		<b>22</b>
Service Equity		6
Opportunity to reduce costs		5
Time-sensitive coordination		6
Multiple benefits		6
<b>Requirements</b>		<b>Y/N</b>
Regulatory compliance		
Mandates, legal agreements		

# DWW Integrated System Plan



# Future Points of Connection

- Upcoming Request for Information (RFI)
- Input on Public-Facing Materials:
  - Website
  - Project Summary pages
- Possible 2017 Presentations on:
  - Stakeholder Engagement Approach
  - Partnership Analysis
- Participation as Stakeholders in 2018