



**SE BEND SEPTIC TO SEWER  
ADVISORY COMMITTEE MEETING**

**THURSDAY, DECEMBER 7, 2017**

# WELCOME & INTRODUCTIONS



- Four Ingredients of Affordability
- Ingredient #2 – Construction Timing/Phasing
- Committee Q&A
- Ingredient #3 – Financing
- Committee Discussion
- Public Comment
- Interim Policy Council Action
- *Look Ahead: Preliminary Engineering II – January 11, 2018*
  - *(Bend Park and Recreation District)*



## **FOUR INGREDIENTS OF AFFORDABILITY**

# “FOUR INGREDIENTS OF AFFORDABILITY”



## 1. *Reducing Project Costs*

- *How is the sewer project being designed to lessen construction costs?*

## 2. *Construction Timing/Phasing*

- How does construction timing/phasing affect project costs?
- What's the ideal timing/phasing to reduce costs?

## 3. *Financing*

- How will costs be allocated (among homeowners, developers, sewer utility)?
- Does financing public improvements over time save money – for public/private investments?
- What financing methods (grants, loans, bonds) would help produce savings for property owners?

## 4. *Affordable for Whom?*

- How much can area property owners afford?
- What assistance could make sewers affordable?
- Are there solutions for low income households?

# OVERVIEW OF THE FOUR INGREDIENTS



## Managing Project Costs

- Length of pipe
- Depth of pipe
- Size of pipe

## Construction Timing and Phasing

- Economies of scale
- Allow for phased financing

## Financing

- Type of financing vehicle
- Phasing of funding types
- Mix of funding sources

## Affordable to Whom

- Property Owners
- Sewer rate payers
- Low income households

# SUMMARY OF “THE FOUR INGREDIENTS OF AFFORDABILITY”



- Each of the four ingredients plays a part in determining the affordability of the project
- Combination of these ingredients will result in alternatives for consideration
- Committee to review financing and funding alternatives to determine recommended affordable approach

1. Reducing Project Costs

2. Construction Timing/Phasing

3. Financing

4. Affordable for Whom?



## CONSTRUCTION TIMING/PHASING



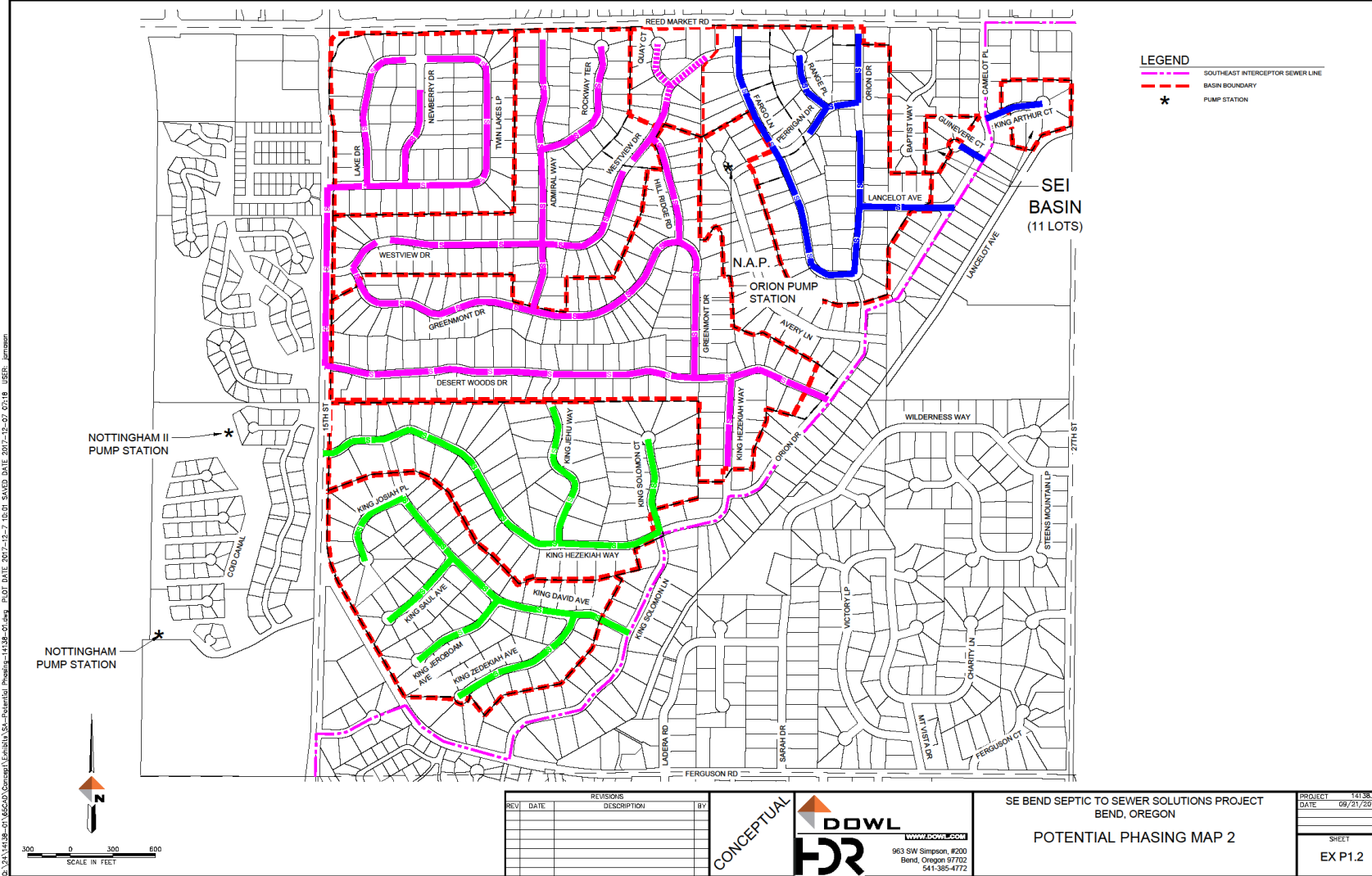


- What do we mean by construction phasing?
- How does construction timing and phasing impact the project?
- What can be done to minimize construction costs?
- How does this impact financing?



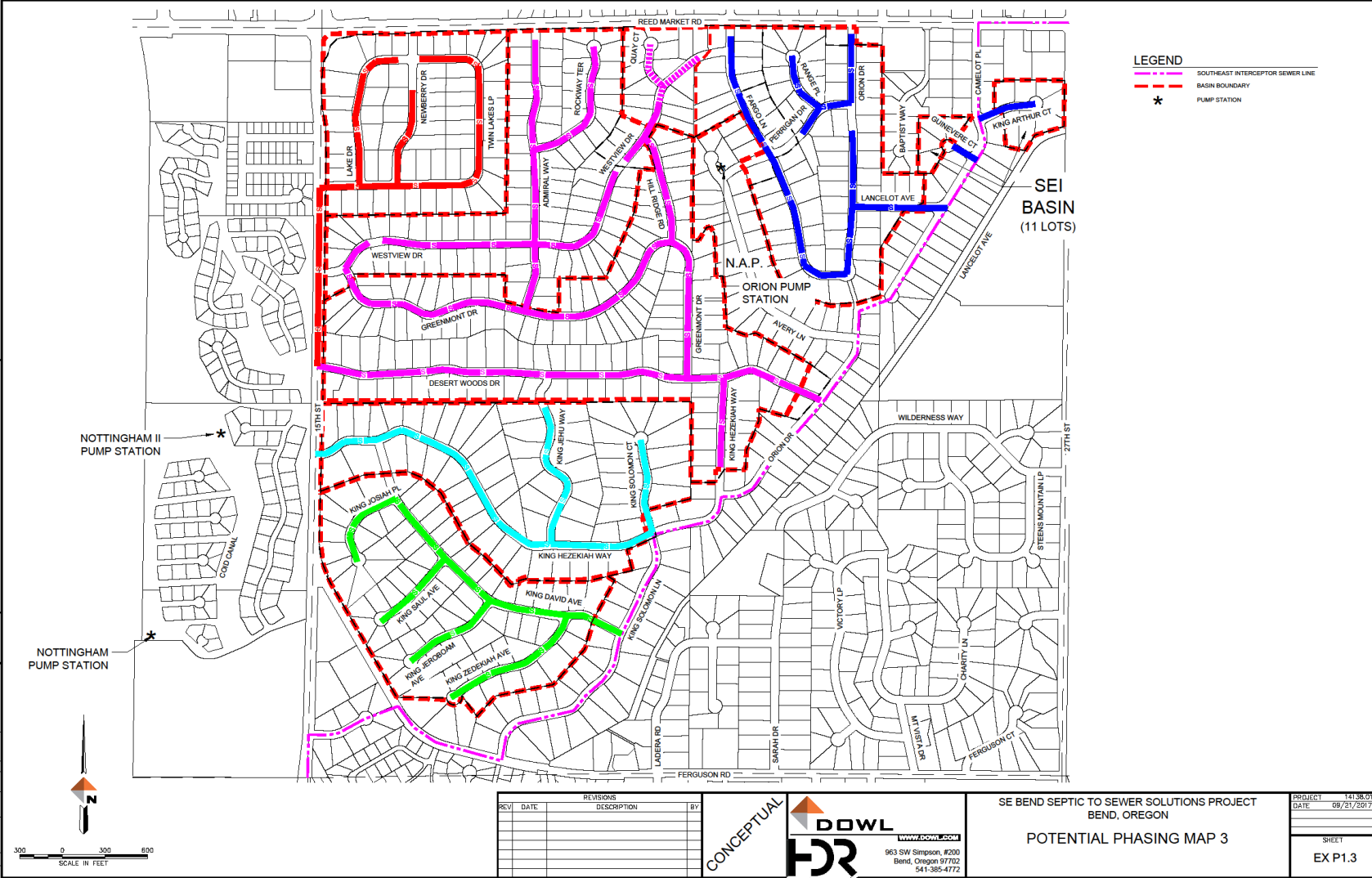


# CONSTRUCTION PHASING



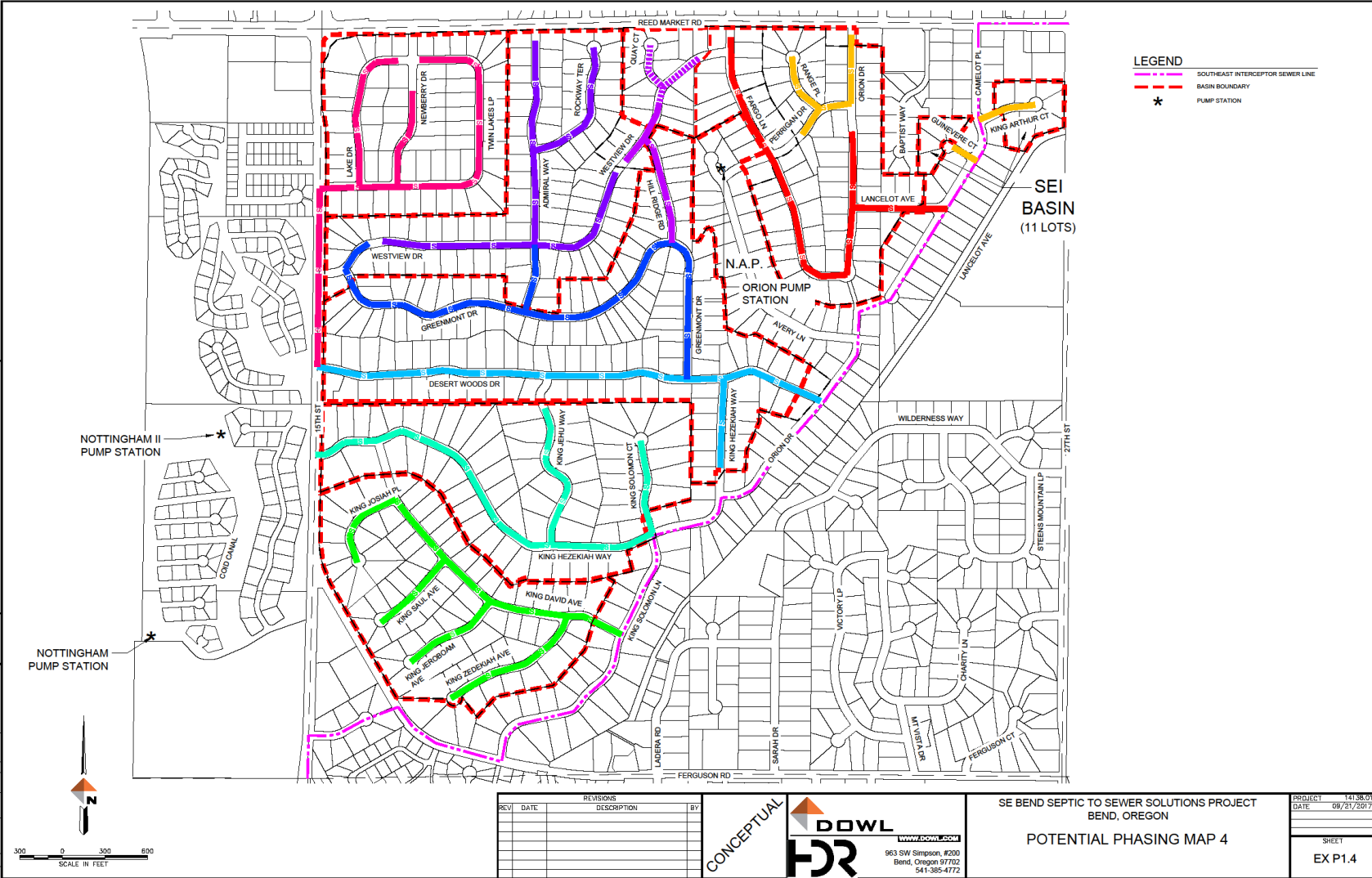
- Single Phase Construction
- Multiple Large Phases

# CONSTRUCTION PHASING



- Single Phase Construction
- Multiple Large Phases
- **Multiple Medium Phases**

# CONSTRUCTION PHASING



- Single Phase Construction
- Multiple Large Phases
- Multiple Medium Phases
- **Multiple Small Phases**

REV	DATE	REVISIONS DESCRIPTION	BY

CONCEPTUAL

SE BEND SEPTIC TO SEWER SOLUTIONS PROJECT  
BEND, OREGON

POTENTIAL PHASING MAP 4

963 SW Simpson, #200  
Bend, Oregon 97702  
541-385-4772

PROJECT	14138.01
DATE	08/21/2017
SHEET	EX P1.4

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- Phase Scheduling
  - **30% Designs**
    - Part of this contract
  - **Bid Documents**
    - Plans, Specifications, and Estimate for bidding and constructing
  - **Bidding and Procurement**
  - **Construction**
    - Excavation and removal
    - Trenching and piping
    - Sewer Stub-outs
    - Road reconstruction and paving
    - Right-of-way restoration





- Requirements of each phase
  - **Separate construction contract documents**
    - Plan, specification, and estimate packages
  - **Separate bidding and procurement processes**
    - Advertisements
    - Pre-bid meetings
    - Contracting
  - **Separate construction administration processes**
    - Pre-construction meetings
    - Weekly construction meetings
    - Monthly invoicing
    - Closeout





## CONSTRUCTION PHASING

### More Phases

- Increased competition
- Potentially earlier start
- Potential for more contractors
- Increased procurement demand on City purchasing staff
- Increased construction setup and closeout
- Increased construction administration costs

### Fewer Phases

- Reduced procurement demand on City purchasing staff
- Reduced construction setup and closeout
- Fewer contracts to administer
- Lower construction administration costs
- Reduced competition
- Potentially later start





**Different benefits of phasing** depending on the sharing of the costs

- Homeowners and system customers

**No cost sharing** – limited benefits/impacts as a result of phasing

- Minimal ability to lower cost of funds with no cost sharing

**Cost sharing** – phasing can impact overall benefits/impacts (e.g., affordability to homeowners and system customers)

- Availability of financing options (low cost) and interest risk
- Cost of multiple financing approaches
- Timing of funding needs
- Availability of funding (e.g., rates, SDCs)

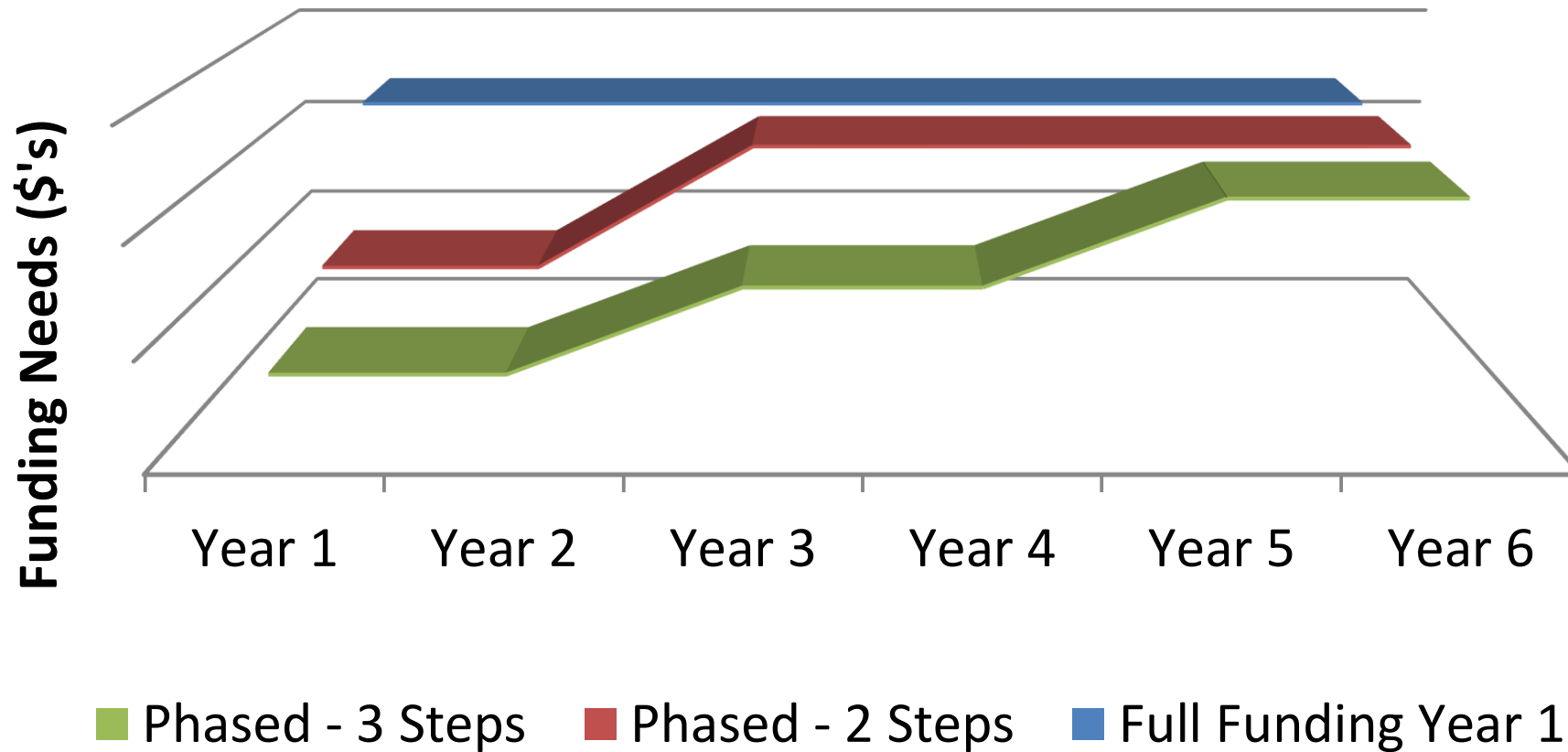
**Phasing can also impact the timing of customer connections**

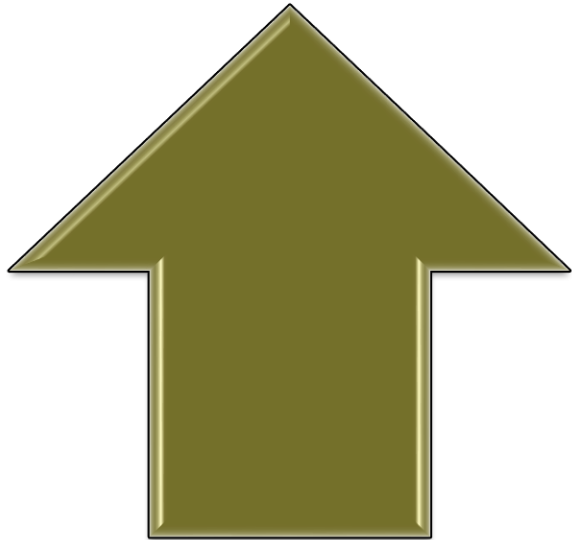
- Result in speeding up, or delaying, customer connection and funding
  - Both SDCs and rates

**Portland example:** early customer sign-up allowed cash financing and minimized borrowing costs



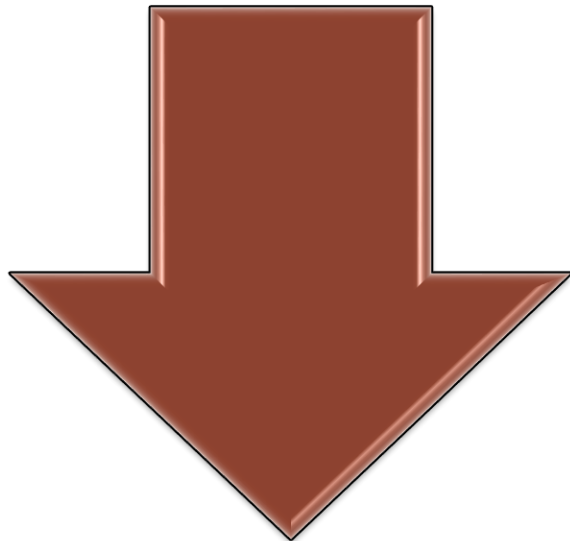
## Phasing and Revenue Needs





## More Phases

- Greater flexibility to phase-in funding needs over multiple years
- Can increase financing (borrowing) costs (multiple issuances)
- May allow for multiple low cost funding alternatives
- Possibly slow down customer connections and contributions from SDCs and monthly rates



## Fewer Phases

- Need to speed up funding levels
- Ability to minimize financing (borrowing) costs (single issuance)
- May minimize low cost funding alternatives
- May speed up customer connections and contributions from SDCs and monthly rates

# COMMITTEE Q&A



## **INGREDIENT #3 – FINANCING**



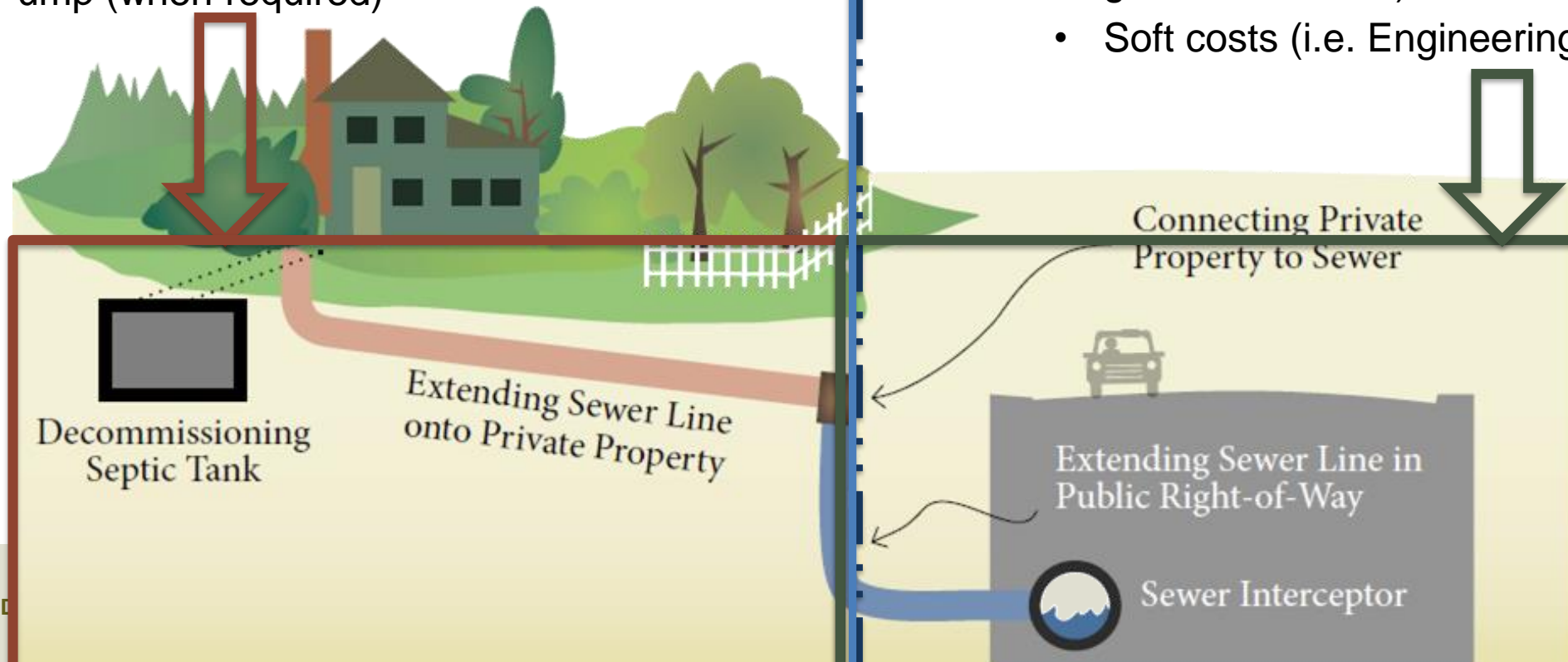
- Both internal and external financing sources
  - Internal – revenues based on providing services (e.g., rates, SDCs)
  - External – long-term borrowing (bonds, loans, etc.)
- Phasing will impact overall financing approach
- Project will most likely be a mix of available financing sources
- Are there financing strategies to minimize the affordability impacts of the project?

# PROJECT COSTS



- Typical Private Property Costs
  - Septic tank decommissionion
  - New service lateral to the right-of-way
  - Additional plumbing upgrades, as needed
  - System development charges (SDCs)
  - Permitting
  - Pump (when required)

- Typical Public Costs
  - Sewer main
  - Manholes
  - Sewer laterals to the right-of-way
  - Road reconstruction
  - Right of way restoration (landscaping and gravel shoulders)
  - Soft costs (i.e. Engineering, Permitting, etc)





## Municipal Revenue Bonds

- Backed by the revenues of the sewer utility
- Need to maintain specific bond covenants (debt service coverage ratio)

## General Obligation Bonds

- Backed by the City
- Requires a public vote to approve
- Paid for through annual assessments on property tax bill

## Oregon Department of Environmental Quality (DEQ)

- **Clean Water State Revolving Fund (CWSRF)**
  - Low interest loans for planning, design, and construction of water pollution control facilities
    - Interest rate approx. 2/3 of current municipal bond rate plus annual loan maintenance fee (0.5% for recent City projects)
- **CWSRF Pollution Reduction Funding**
  - Point and Nonpoint source projects that prevent or mitigate water pollution
- **Nonpoint Source Implementation 319 Grants**
  - EPA provides grants to states for nonpoint sources of pollution, such as agricultural runoff, mining activities, and malfunctioning onsite septic systems





## Business Oregon Infrastructure Authority

- **Water/Wastewater Financing Program**
  - Administered by the Oregon Economic and Community Development Department (OECDD)
  - Wastewater collection and capacity eligible projects
  - Projects Loan Maximum \$10 million & Grant Maximum of \$750,000
- **Drinking Water Source Protection Fund**
  - Only projects relating to water source protection
- **Oregon Community Development Block Grant Program (OCDBG)**
  - For water and wastewater systems necessary to bring into compliance with
    - Safe Drinking Water Act or Clean Water Act administered by the Oregon Health Authority
    - Requirements for water quality statues, rules or permits from Oregon Department of Environmental Quality (DEQ) or Environmental Quality Commission
  - Target for “Low income” equal to 50% of the area median; Target for “Moderate income” equal to or less than 80% of area median
  - Total project grants limited to \$3,000,000



## HOW COSTS ARE TRADITIONALLY PAID FOR

### Sewer Rates

- Annual O&M
- Transfers
- Debt Service
- Rate Funded Capital

Customer Funded

### System Development Charges

- Growth/Expansion Capital Costs
- Growth/Expansion Debt Service

New Connection Funded

### Homeowner Contributions

- Specific Area Improvements

Homeowner Funded



- **Traditional utility funding of infrastructure costs**
  - Sewer Rates
  - System Development Charges and Connection Fees
  - Local Improvement Districts
  - Reimbursement Districts
  - Monthly Surcharge



- **Sewer rates are the primary funding source for the utility**
- **Monthly sewer charges**
  - Base charge based on a per customer basis
  - Volume charge based on Winter Quarter Average (WQA)
- **Current monthly sewer charges**
  - Single family residential
    - Base Charge \$34.55
    - Volume Charge \$3.62 Per 100 cubic ft. of WQA
- **Many financing alternatives are ultimately “backed” by sewer rates**
  - Need to consider impact to current rates, and customers, based on specific area improvements
  - Is this an equitable approach???

# FINANCING – SYSTEM DEVELOPMENT CHARGES



- **Purpose**

- To bring equity between existing and new connections to the system
  - Existing customers paid for available capacity
  - New connections pay a buy-in and/or new expansion related facilities
- To fund infrastructure necessary to serve growth
  - For new connections to pay an equitable share of expansion-related facilities needed to serve them

- **SDC could be revised to include current and future projects**

- Results in a proportional share of costs spread across all new customers
- Committee policy discussion

- **Current City sewer system development charge**

- \$4,655.00 per EDU (Equivalent Dwelling Unit)

## FINANCING – LOCAL IMPROVEMENT DISTRICT



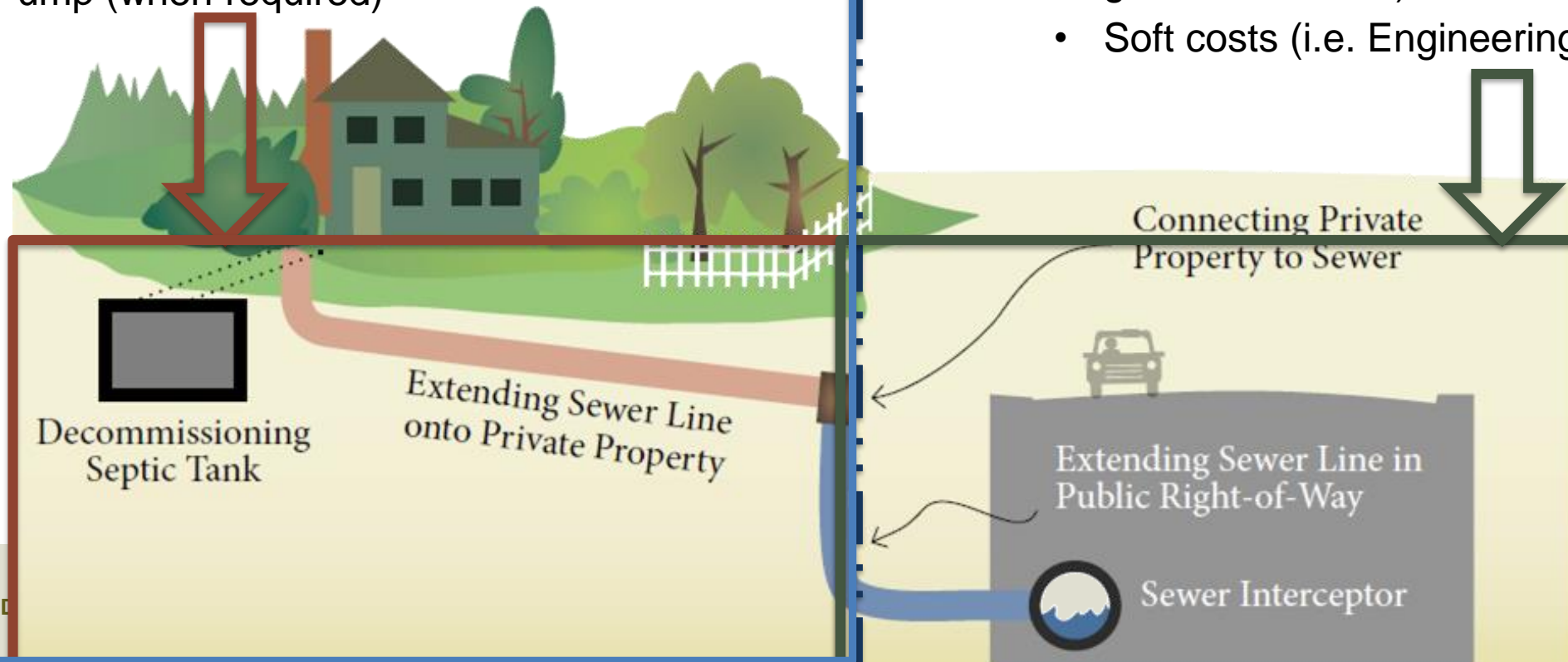
- The City finances the project with the sale of bonds
  - The bonds are redeemed with the project assessment proceeds
- Property owners have responsibilities as part of the process
- City developed engineer's report and intent to create the LID
- If Report is accepted public hearing is set to consider objections to project
- If 2/3 (66%) of benefiting property owners object then Council must discontinue further discussion of project for three months.
- If fewer than 2/3 of benefitting parties object, then City accepts project, and costs are tabulated
  - A public hearing is then held to confirm the final assessments to each property owner
  - Objections to the assessment are heard by the City Council

# PROJECT COSTS



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- **Craft3 Clean Water Loans**

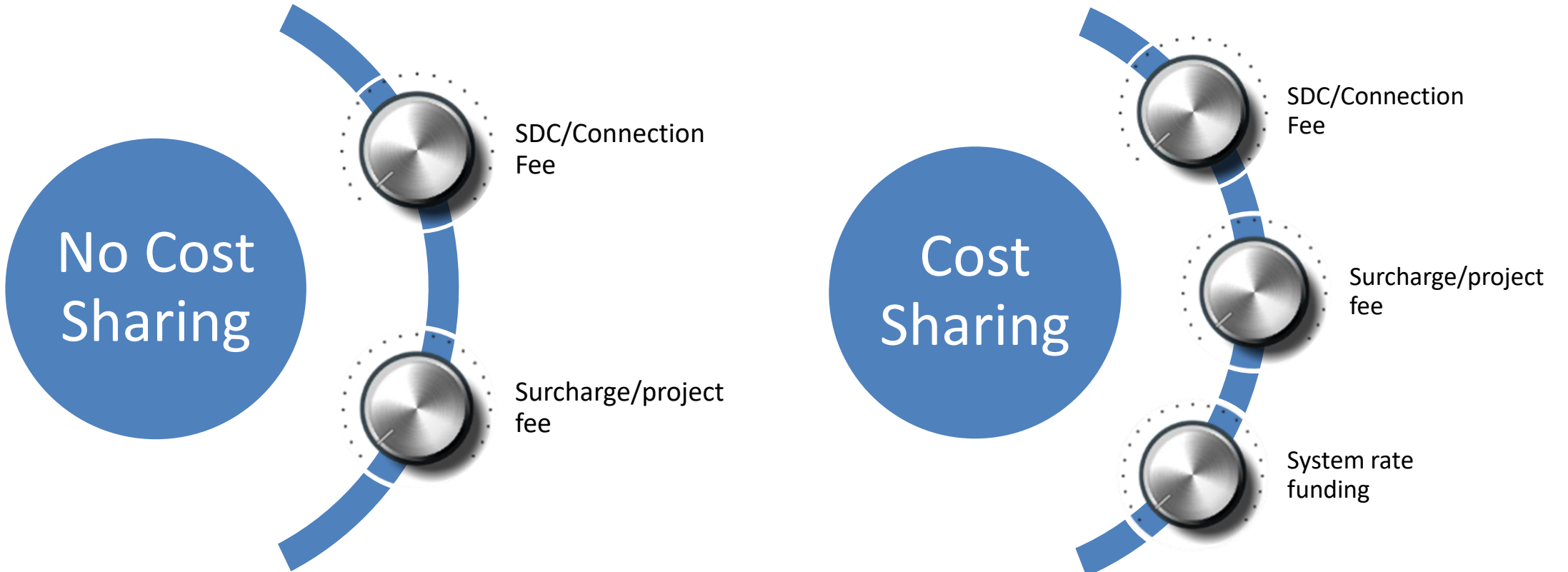
- One of the following must apply:
  - your septic system is at least 25 years old;
  - your system is failing and you have evidence to support it;
  - you have been contacted by Health Officials; or
  - you are under orders to fix your septic system
- Sometimes available for financing connection to a municipal sewer system
- Rates and terms dependent on applicants annual household income





- Project funding will attempt to **minimize costs by looking at financing alternatives**
  - Low cost alternatives may not be feasible, or available based on the project
- **Balancing the impact to homeowners and existing rate payers.**
  - Phasing the project over multiple years may help balance the impact to both
  - Conversely the quicker the customers connect, and contribute, it can lower the impact
- **Peer Community Review Examples**
  - Portland – incentives to connect early
  - Spokane County – financing of SDCs and connection charges
- Once preliminary costs are known, **financial analysis will review the low and high ranges** based on project cost and sharing assumptions
  - January/February 2018

# FINANCING AND AFFORDABILITY - COST SHARING





- **Various financing alternatives may be available**
  - Advantages and disadvantages for each
- **Project phasing can drive financing alternatives and costs**
  - Trade-offs between shorter and longer time periods for both overall financing costs and customer contributions (revenue)
  - Impact will vary depending on cost sharing
- **Project funding will likely combine various financing alternatives**
  - Mix of homeowner and rate funding
- **Financing alternatives for homeowners**
  - Timing of SDC/Connection fee payment
  - Ability of City to finance SDC/Connection fee
  - Timing of connection to system

# COMMITTEE DISCUSSION

# UPCOMING ADVISORY COMMITTEE MEETINGS



**Thursday, January 11**

Preliminary Engineering II

**Thursday, February 1**

Four Ingredients of Affordability



- 5 minutes
- Time divided among speakers
- Comment cards available



**THANK YOU**