

# Comprehensive General Sewer Plan

Clark County  
Planning Commission  
November 15, 2018



# Agenda

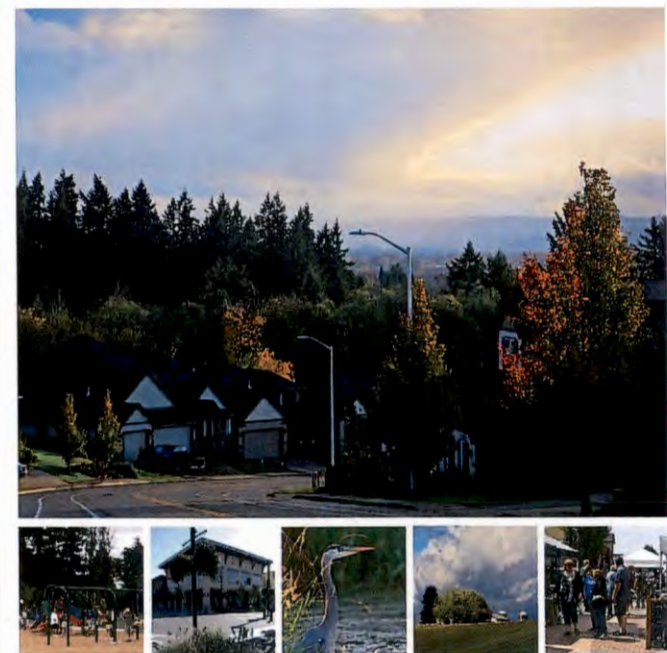
- **Goals & Objectives**
- **District History & Context**
- **Study Area Overview**
- **Growth Projections**
- **Infrastructure Planning**
- **Financial Analysis**
- **Summary & Conclusions**

# Goals & Objectives

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Strategic Infrastructure Planning & Investment for the present and reasonably foreseeable future needs of the community.

- Plan Goals
  - Continued Regulatory Compliance
  - Support County and City Comprehensive Plan Goals
  - Provide a framework for future Capital Investment



**20**  
YEAR

Comprehensive Growth  
Management Plan  
2015-2035

# Goals & Objectives

- Policy Objectives
  - Provide Affordable & Reliable Service
  - Protect Public Health & the Environment
  - Support Economic Development



# District History & Context

# District History & Context

- Title 57 RCW “Water-Sewer District”
- Founded 1958
  - Clark County Sewer District No. 1
  - Hazel Dell Sewer District
  - Clark Regional Wastewater District
- 2014 – Ridgefield Collection System Transfer
- 2015 – Discovery Clean Water Alliance



# Study Area Overview

# Study Area Overview

- Size – 50+ mi<sup>2</sup>
  - 82 Sewer Basins
- Population Served – 100,000±
  - 43,000+ ERU
- Average Daily Flow – 8.3 mgd

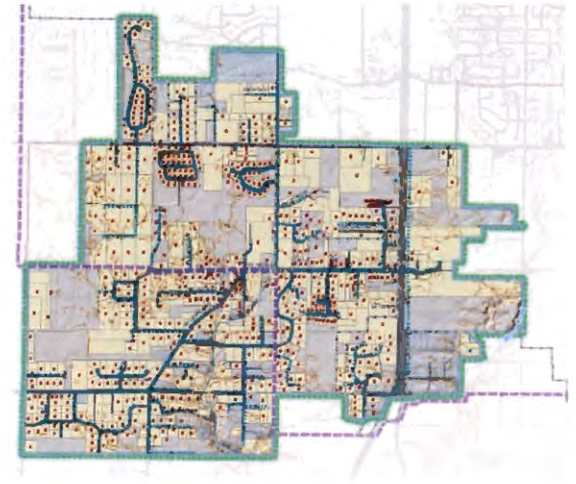
‘ERU’ – Equivalent Residential Unit: the volume of flow from a single family household

‘mgd’ – millions of gallons per day



# Study Area Overview

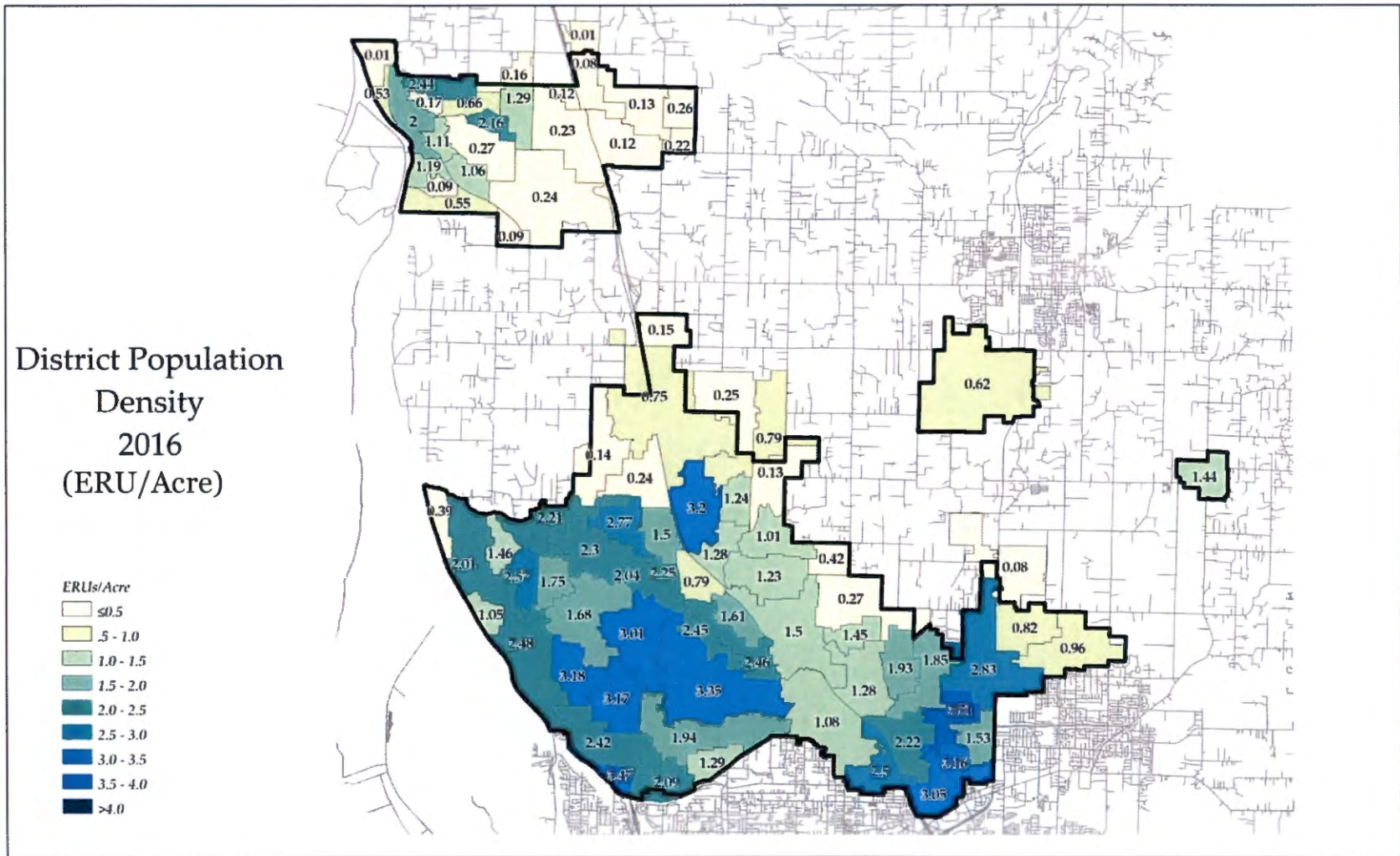
- Service Area
  - Urban Growth Areas
    - City of Vancouver - 39 mi<sup>2</sup>
    - City of Ridgefield – 9 mi<sup>2</sup>
    - City of Battle Ground – 1.4 mi<sup>2</sup>
  - Existing Areas Outside of the UGA (40.370 CC Unified Dev. Code)
    - Rural Centers
      - Meadow Glade & Hockinson
    - Individual Parcels
      - 4 schools, 3 public facilities, 7 private



# Study Area Overview

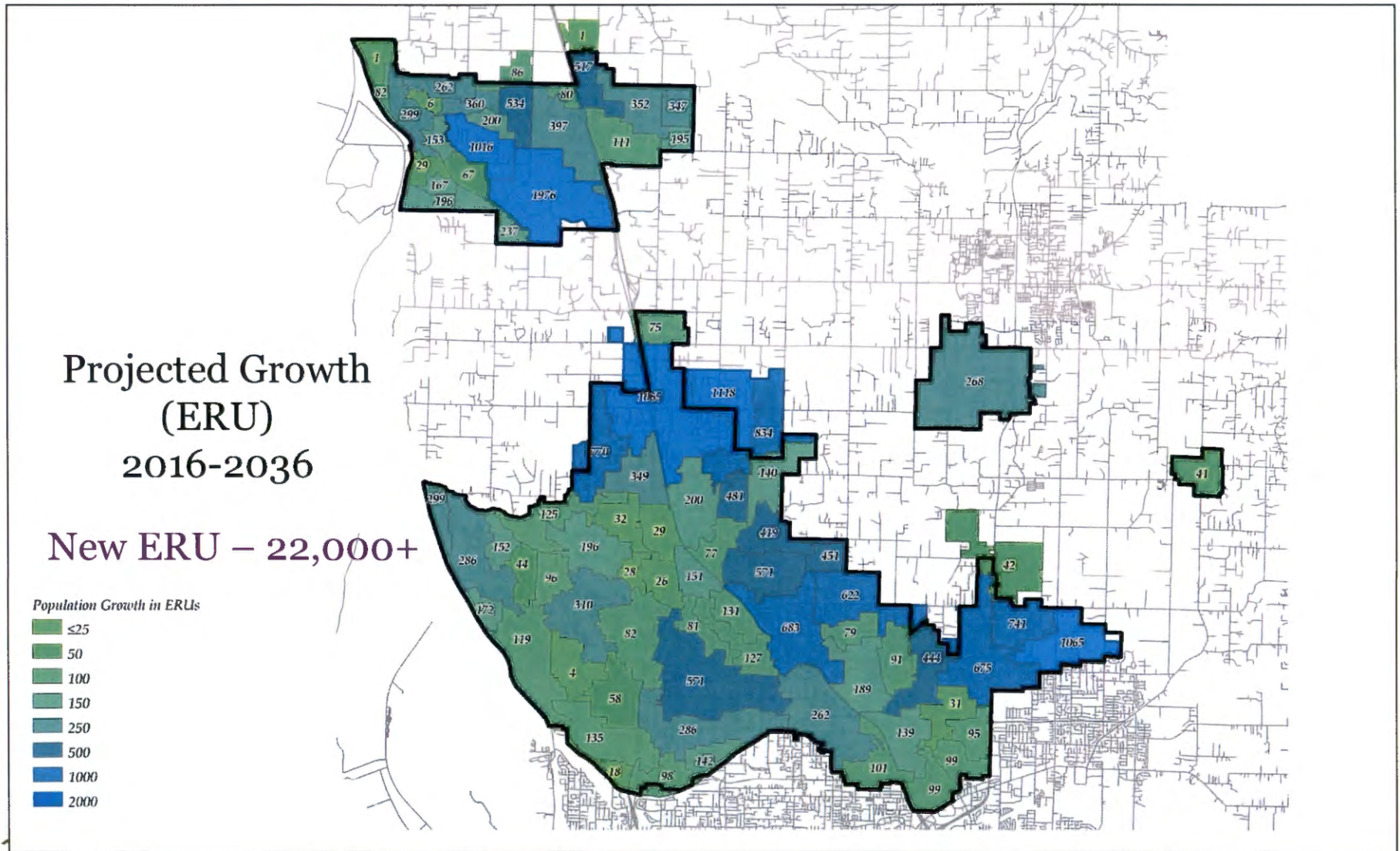
- Future Needs - Areas of Study (RCW 57.16.010(2))
  - Establish feasibility of service and availability of capacity:
    - Rural Industrial Land Bank
    - Freight Rail Dependent Uses Overlay Area
    - Allen Creek West – Ridgefield Annexation
  - Local government with jurisdiction must approve District service, consistent with:
    - RCW 57.16.010(7)
    - RCW 36.70A.110

# Study Area Overview



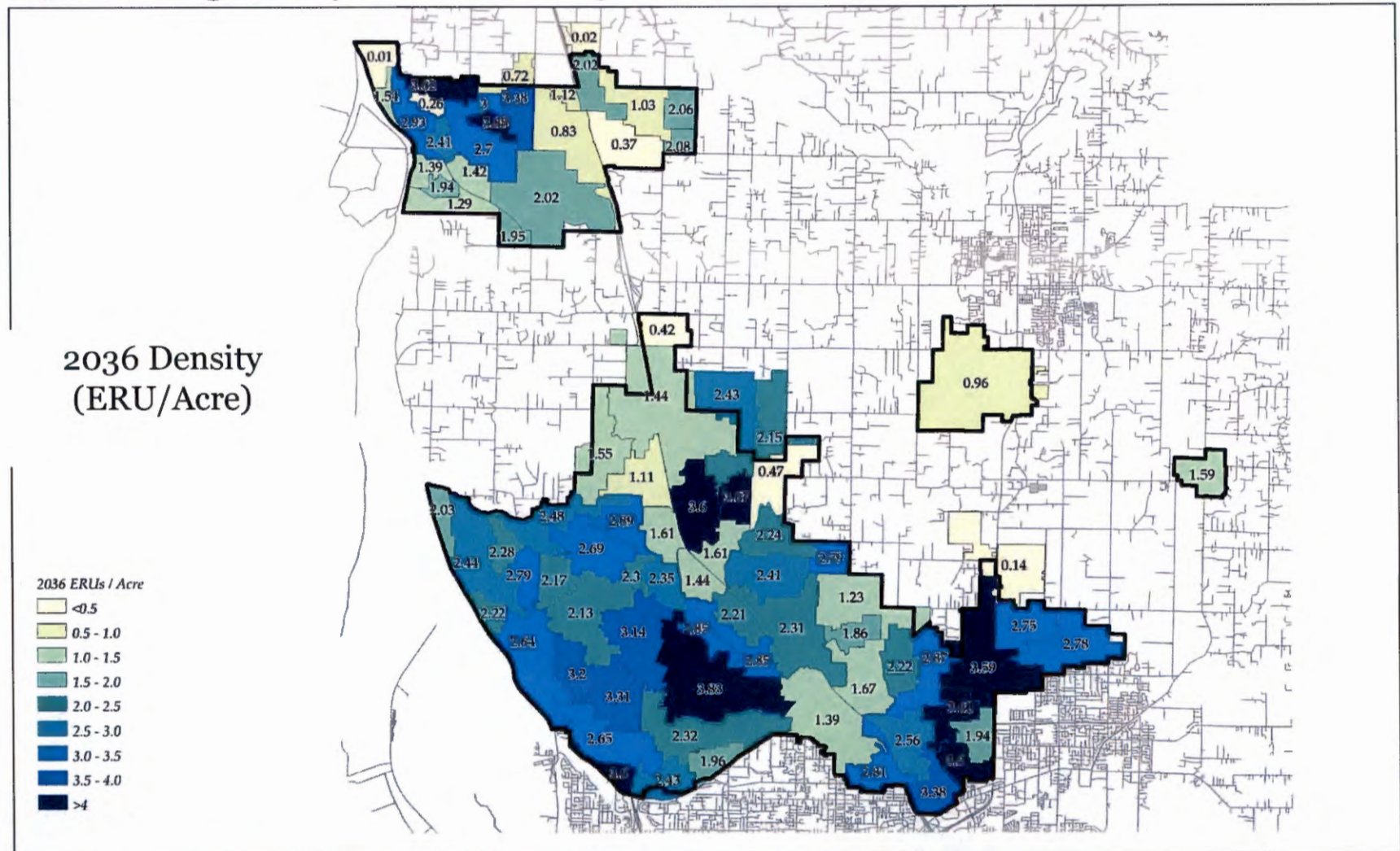
# Growth Projections

# Growth Projections (per County Comp Plan)



# Growth Projections

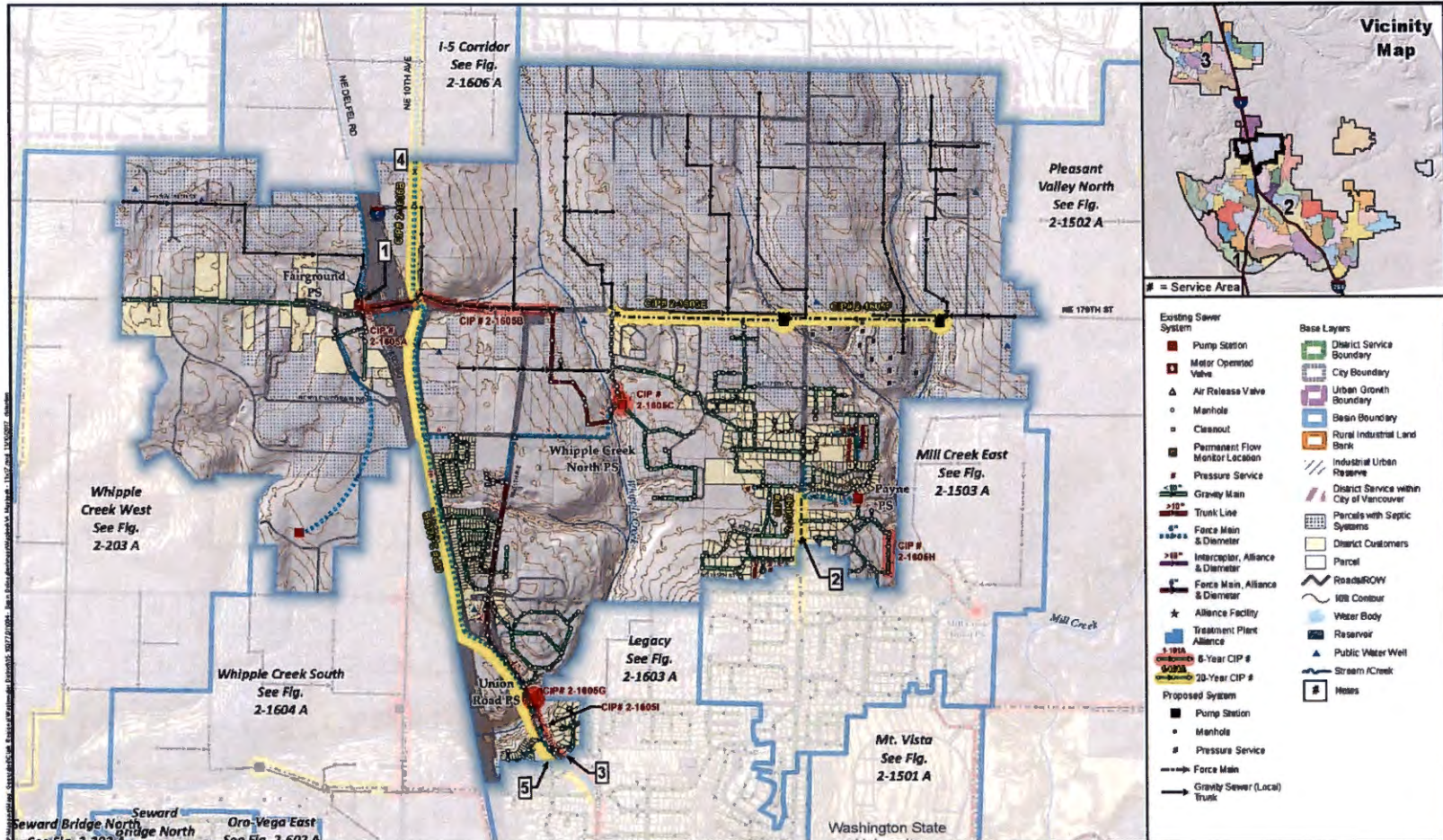
2036 Average Daily Flow – 16 mgd (80,000+ ERU)



# Infrastructure Planning

# Infrastructure Planning

- Schematic Planning for System Expansion



Sewer System & Basins: Clark Regional Wastewater District  
 GIS Base data: Clark County  
 Data sources supplied may not reflect current or actual conditions. This map is a geographic representation based on information available. It does not represent survey data. No warranty is made concerning the accuracy, currency, or completeness of data depicted on this map. Indicated scale when printed in 11x17 format.

Scale:  
 1 inch = 1,200 feet

- Notes:
- 1) Fairgrounds PS to be Removed with CIP# 2-1605A.
  - 2) Payne PS Force Main to be re-routed and discharge to MH# 3-6 in mini-basin 2-1503A.
  - 3) New 15-inch Force Main from Union Road PS under CIP# 2-1605B continues on Fig 2-1605A.
  - 4) Continuation of CIP# 2-1606B from mini-basin I-5 Corridor.
  - 5) CIP# 2-1606B continues into mini-basin Legacy Fig 2-1603A.



**Mini-Basin 2-1605  
 Whipple Creek East**  
 Comprehensive General Sewer Plan  
 Clark Regional Wastewater District  
 November 2017

Figure  
**2-1605 A**

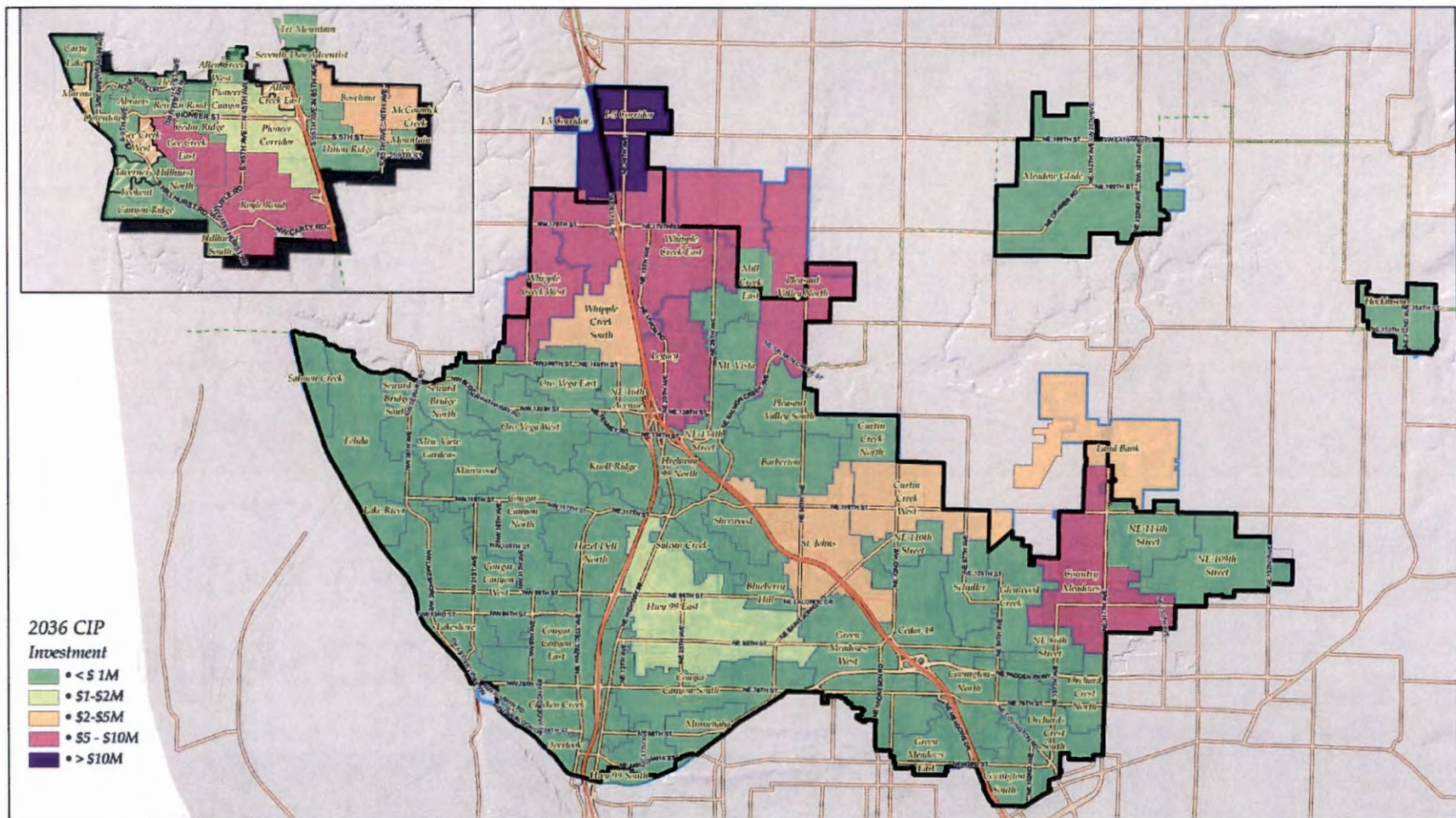
# Infrastructure Planning

- Capacity Assessment
  - 25-yr Design Storm (Dec 7-8, 2015)
  - Calibrated Hydraulic Model
- 2036 System Capacity
  - 99% gravity sewers
  - 87 % of pump stations



# Infrastructure Planning

- Capital Improvement Projects: \$102 M
  - 6-yr program: \$37M

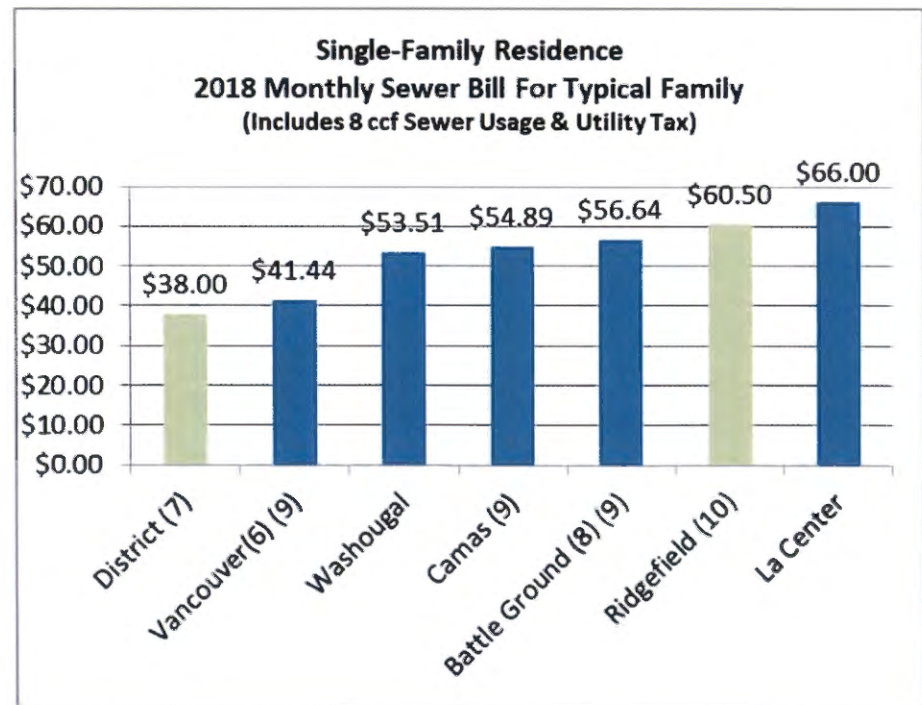
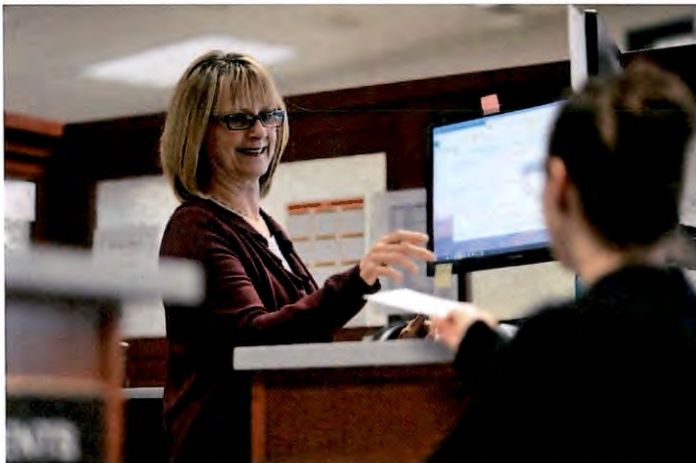




# Financial Analysis

# Financial Analysis

- Capital projections are scale appropriate
- Stable and competitive rates and charges
  - Rates – Modest, inflationary adjustments
  - Charges – Incremental adjustments over time



# Summary & Conclusions

# Summary & Conclusions

- Plan Goals
  - Regulatory Compliance
    - General Comprehensive Plan – Chapter 57.16 RCW
    - General Sewer Plan – Chapter 90.48 RCW & Chapter 173-240 WAC
  - Supports County and City Comprehensive Plan Achievement
    - Capacity Available for 50+ % increase in flow
  - Provide a framework for future Capital Investment
    - \$147 M future CIP and R&R investment

## City of Battle Ground, Washington

Comprehensive Plan 2015-2035



Adopted by City Council June 27, 2016

Ord. No. 16-05

Effective Date July 27, 2016



# Summary & Conclusions

- Policy Objectives
  - Economic Development
    - Capacity planned for all Employment Lands
    - Flow allowances for Wet Industrial
  - Affordable & Reliable Service
    - Competitive rates & charges, locally and regionally
    - Maintain District Levels of Service
  - Protecting Public Health & Environment
    - \$45 M R&R Projects
    - \$102 M Capital Projects

# Questions?

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For more information and to view the GSP, go to  
<https://www.crwwd.com/projects/gensewer.php>