

From: [Jeffrey Delapena](#)
To: [Cnty 2025 Comp Plan](#); [Mitch Kneipp](#)
Cc: [Oliver Orjiako](#); [Jose Alvarez](#); [Jenna Kay](#)
Subject: FW: City of Washougal Comments on the DEIS
Date: Monday, December 1, 2025 8:20:04 AM
Attachments: [image001.png](#)
[Washougal DEIS Comment Letter \(11-26-2025\).pdf](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Good day, Mitch,

Thank you for submitting the City of Washougal's feedback related to the Draft Environmental Impact Statement for the 2025 Comprehensive Plan Update.

I have forwarded these comments to additional Staff and will enter them into the Index of Record.



Jeff Delapena
Program Assistant
COMMUNITY PLANNING

564.397.4558



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From: Mitch Kneipp <Mitch.Kneipp@cityofwashougal.us>
Sent: Wednesday, November 26, 2025 6:10 PM
To: Cnty 2025 Comp Plan <comp.plan@clark.wa.gov>
Cc: Oliver Orjiako <Oliver.Orjiako@clark.wa.gov>; Jose Alvarez <Jose.Alvarez@clark.wa.gov>
Subject: City of Washougal Comments on the DEIS

You don't often get email from mitch.kneipp@cityofwashougal.us. [Learn why this is important](#)

EXTERNAL: This email originated from outside of Clark County. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good evening,

Attached please find the City of Washougal's comments on Draft Environmental Impact Statement.

I hope you all have a very Happy Thanksgiving!

Mitch



MITCH KNEIPP (he/him/his)

Community Development Director

360.835.8501 ext. 604 | cityofwashougal.us

Permit Center | 211 39th Street | Washougal, WA 98671

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November 26, 2025

Community Planning
Comp Plan Comments
PO Box 9810
Vancouver, WA 98666
Comp.plan@clark.wa.gov
Delivered via Email

RE: Draft Environmental Impact Statement Comments

To Whom It May Concern:

Thank you for the opportunity to review and submit comments on the Draft Environmental Impact Statement (DEIS). In general, our review of the DEIS was centered around information and analysis pertinent to the city of Washougal (City) with some observations and questions about the broader document and process. Comments and questions are organized into categories for ease of review/response.

General Comments

1. Mitigation Measure Clarification: The DEIS presents mitigation measures in two ways. First, by summarizing potential mitigations in Table 5 within the Introduction and Summary section. Potential mitigation measures are also listed in the discrete environment sections presented in Section 3. Table 5 is not an exhaustive list of mitigations, and it is unclear what weight these mitigation measures carry over the more robust list of measures described in the separate sections or how they were selected for inclusion in Table 5. Further, the mitigation measures are broad in nature and may not apply to every jurisdiction. It would be helpful if clarification can be provided about how mitigation measures are applied for each jurisdiction and how mitigation listed in Table 5 relates to those in Section 3.

2. Jurisdictional Growth Capacity: The DEIS asserts that Alternatives 2 and 3 meet the projected growth at a countywide level (land/assumptions provide sufficient capacity to accommodate total housing units and job needs). However, in each alternative, individual jurisdictions have more or less capacity than needed to accommodate their 20-year allocations (see Tables 74, 77, 80 and 83). It is not clear how this will be addressed during selection of the preferred alternative or in the Final EIS to demonstrate compliance with provisions of the Growth Management Act that requires that each jurisdiction has sufficient capacity to accommodate 20 years of growth, not just having

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sufficient county-wide capacity. Specifically, Revised Code of Washington (RCW) 36.70A.110(2) states:

“Based upon the growth management population projection made for the county by the office of financial management, the county and each city within the county shall include areas and densities sufficient to permit the urban growth that is projected to occur in the county or city for the succeeding twenty-year period, except for those urban growth areas contained totally within a national historical reserve. As part of this planning process, each city within the county must include areas sufficient to accommodate the broad range of needs and uses that will accompany the projected urban growth including, as appropriate, medical, governmental, institutional, commercial, service, retail, and other nonresidential uses [...]”.

3. Agricultural Lands Study and Land Use Alternatives:

The Clark County Agricultural Lands Study, prepared by EConorthwest, indicates that many of the UGA expansion areas are considered prime farmland or farmland of statewide importance. Urbanization of these lands may be inappropriate. If requests for de-designation and subsequent expansions of the UGA are not pursued as shown in the alternatives, then jobs and housing allocations assigned to expansion lands will need to be accommodated elsewhere, which could result in the need to reallocate between the jurisdictions. Since the DEIS does not include an alternative that meets the growth projections without expansion into agricultural land, there appears to be no GMA-compliant alternative to select. What is the process for developing and including at least one GMA compliant land use alternative in the EIS and how could that affect the schedule?

4. Housing Capacity at Income Levels: The DEIS speaks about housing need and housing capacity in general terms (i.e. units) without distinction regarding the affordability levels. However, it was our understanding that capacity in high density zones was being relied upon to verify adequate supply for housing units at 80% or below area median income (AMI) and the housing capacity in low density zones was being relied upon to verify adequate supply for housing units above 80% AMI. How will the Final EIS address housing at all affordability levels consistent with RCW 36.70A.070(2)(c) and what information will you require from the City to demonstrate local compliance?

Washougal Land Use Alternatives

5. Additional Detail for Alternatives: The DEIS includes descriptions of Washougal’s growth plan in each of the alternatives evaluated, referred to in the DEIS as Alternative 1 (No Action Alternative), Alternative 2 (City-initiated Actions 1 and County-initiated Actions 1), and Alternative 3 (Alternative City-initiated Actions 2 and County-initiated Actions 2). However, the summaries lack some specific information that we feel is pertinent and valuable for this analysis. Some additional information is provided below for each of the Washougal scenarios. We are requesting this additional information be included in the descriptions of the alternatives specific to Washougal throughout the document, including the description discussed on Page 129:

Alternative 1: The DEIS does not discuss the discrepancy identified in the baseline assumptions in the Vacant Buildable Lands Model (VBLM) which resulted in an over estimated employment capacity in Washougal and its Urban Growth Area (UGA). The City and County determined after discussion in multiple meetings in the summer and fall of 2026 that revised zoning to reflect the City's adopted NE and NW UGA subarea planning effort (completed in 2016) was not fully incorporated before the County VBLM was generated to establish existing land capacity. As a result, the County allocated more jobs than the City could accommodate. The City considered different ways to address this as part of the local land use alternatives selection but ultimately was unable to accommodate all jobs assigned. This issue was discussed with County staff and presented to the Clark County Council in a letter dated December 5, 2024 (attached) and shared via verbal testimony at a public hearing before the Council on December 6, 2024.

Alternatives 2 and 3: As part of the City's local alternatives selection process, a technical memorandum was prepared summarizing the two growth alternatives for Washougal. The memorandum summarizes each of the local growth alternatives, including density assumptions and potential rate of development for middle housing and accessory dwelling units across the City to address housing by affordability level. It should be clarified that the City's Local Alternative 1 is included in DEIS Alternative 2, and City Alternative 2 is included in DEIS Alternative 3. The memorandum is included to provide additional detail about each alternative for the record.

Public Services and Utilities

6. The DEIS evaluates demand for public water and sanitary sewer in each of the scenarios. It is not clear from our review of the document how this analysis was completed. However, as part of its local periodic update process, Washougal evaluated water, sewer, and stormwater system demand for each of the City's alternatives. These memorandums are attached for reference.

The DEIS appears to rely on the Parks and Open Space Element in the 2015-2035 Washougal Comprehensive Plan Update when evaluating impacts to parks and recreation facilities, and in summarizing level of service and parkland needs. However, Washougal completed an update to the Washougal Comprehensive Parks and Recreation Plan in 2021, which was intended to be an update of the comprehensive plan element. We request that the analysis be updated using information from the 2021 Comprehensive Park and Recreation Plan which is available on the City's website ([City-of-Washougal-Comprehensive-Park-and-Recreation-Plan-September-2021](#)).

Requested Clarifications and Corrections

7. Below is a list of clarifications or corrections we noted during our review.
 - The planning assumption for persons per household noted in Table 1 is less than the assumption listed in Issue Paper 4: Planning Assumptions published in September 2023. We would have expected this assumption to remain consistent across all analysis for this project. Is this an error, or can you explain the reason for the adjustment?

- The transportation mitigations listed in Table 5 state that mitigations are relative to impacts for Alternatives 1 and 2 but we assume these impacts would apply to Alternative 3, as well. Please review and update as appropriate.
- It is unclear what lands or facilities are included in the Solid Waste Facilities category included in Table 4. The table indicates Washougal has 0 acres of solid waste facilities; however, the Washougal Transfer Station is located within the City. Please review and update inventory in Table 4 as appropriate.
- Review Tables 7 – 15 in the soils section. Metrics reported for Washougal have minor discrepancies/inconsistencies in acreage or are missing data points. Please review and update as necessary.
- A summary of Washougal’s sanitary sewer system is included on Page 174 of the document. The paragraph includes a source citation which is not listed at the end of the section. Please update.
 - The City’s General Sewer Plan is available online ([Washougal-General-Sewer-Plan-PDF](#)). Please note a General Sewer Plan Amendment is being prepared as part of the City’s Comprehensive Plan Update process. The amendment is being developed and is not yet available for review.
- Update Table 101 to include public works facilities in Washougal.
- Section 3.6.2.3 Impact of Alternative 3 - A discussion of Washougal’s alternative 3 and impacts to the Scenic environment is not included. Please update.
- Please provide the VBLM assumptions for Alternative 1 (No Action Alternative).

The City of Washougal appreciates the efforts to compile this DEIS and thank you again for the opportunity to review and submit comments. Should you have any questions feel free to contact me at 360.835.8501 ext. 604, or via email at mitch.kneipp@cityofwashougal.us.

Sincerely,



Mitch Kneipp
 City of Washougal
 Community Development Director

Attachments:

- Washougal Letter to County Council December 5, 2024
- Washougal Land Use Alternatives Memorandum
- Water System Impacts of Land Use Alternatives
- General Sewer Planning Impacts of Land Use Alternatives
- Stormwater Master Plan Impacts of Land Use Alternatives

CC. Oliver Orjiako, Director, Department of Community Planning
 Jose Alvarez, Senior, Program Manager II



Gateway to the Gorge

December 5, 2024

Clark County Council
P.O. Box 5000
Vancouver, WA 98666

RE: Washougal's Job Allocations and DEIS Alternatives

Dear Chair Medvigy and Clark County Councilors:

Thank you for the opportunity to comment and provide additional information regarding Washougal's jobs allocation, and an additional land use alternative for inclusion in the DEIS.

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While developing land use alternatives for Washougal, Clark County and City of Washougal staff discovered that baseline assumptions over estimated employment capacity in Washougal and its Urban Growth Area (UGA). As a result, the City received a larger allocation of jobs that substantially exceeded its capacity. In May 2024, the Clark County Council allocated 2,404 jobs to Washougal for the 20-year planning period. The City has considered different ways to accommodate this number of jobs but cannot do so without changing large areas from residential to employment land uses (commercial and/or industrial).

To remedy this issue, Washougal is coordinating with other cities to accept a larger share of jobs than originally allocated; Ridgefield and Vancouver have preliminarily agreed to accept these jobs because they already have excess employment capacity within their land use alternatives. While final modeling is incomplete, Clark County and City of Washougal staff estimate that the number of jobs to be reallocated is approximately 500. We will be working through the details of this exchange in the coming weeks. Reallocating the jobs to another city will not affect the countywide employment capacity and will ensure that Washougal can better meet the Growth Management Act requirement to have 20 years of capacity within in its UGA.

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Additionally, the City has been working on a second land use alternative for inclusion in the DEIS. This alternative includes more employment land and higher density residential land in the northeast portion of the City's UGA relative to City Alternative 1. This alternative assumes that reallocation of jobs occurs as noted above, so it will not resolve the deficit. We will continue working to finalize this alternative and will coordinate with County staff to have this alternative included in the DEIS for analysis and consideration.

Regarding the County Planning Commission's recommendation to consider adding a market factor for employment land of 10% for vacant land and 30% for underutilized land, the City of Washougal would recommend this not be



Gateway to the Gorge

done at this time. While the concept is fundamentally not a bad idea, the numbers are arbitrary, and the timing of it is problematic. Applying a market factor for employment land at this stage will necessitate the VBLM to be rerun and new job allocations assigned to each municipality, which will take time, and further frustrate Washougal's efforts to reallocate a yet determined and undefined number of jobs.

Again, thank you for the opportunity to comment and for your continued efforts through this process. Washougal appreciates all the time you and your staff have put into this as well as the continued time and effort to see it through.

Sincerely,

Mitch Kneipp
Community Development Director

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Washougal Land Use Alternatives

INTRODUCTION

The City of Washougal is updating its Comprehensive Plan. The Comprehensive Plan is a 20-year roadmap guiding how the community will grow. The update, required by the Washington Growth Management Act (GMA), must address key state requirements including jobs, future land use throughout the community, housing for all segments of the population, and climate change. For this periodic update Washougal must plan for the following through the year 2045:

- 6,724 new residents
- 3,735 new housing units
- Between 2,100 - 2,520 new jobs

There are three recent changes to state law that require the City to plan for housing that meets the needs of the entire community. The City must:

1. Allow up to two middle housing units on each residential lot,
2. Increase the number of accessory dwelling units (ADUs) per residential lot from one to two, and
3. Plan for and accommodate housing for all income levels.

Following engagement with the community, City officials and staff, the City developed two land use alternatives that can meet the required population, housing, and job needs. These alternatives have been shared with city officials and the community to allow for public review and comment in an open house as well as Planning Commission and City Council meetings.

LAND USE ALTERNATIVES

ALTERNATIVE 1

Alternative 1 largely maintains existing zoning throughout the City including implementing zoning as part of the Northeast and Northwest Urban Growth Area Subarea plan approved by the City following the last periodic update process in 2015. This alternative promotes a mix of uses in the town center and along the waterfront, with emphasis on housing in these areas. Specifically, Alternative 1 assumes development within the Town Center (TC-Core, TC- East Village, TC- West Village) districts will be comprised of 60% residential uses and 40% employment uses. In Commercial districts (Community Commercial, Highway Commercial and Convenience Commercial), housing and employment are assumed to be evenly split, with 50% of vacant land developed for each.

To evaluate the implications of both middle housing and accessory dwelling unit (ADU) regulations on the land use alternatives, a rate of development was established for both vacant and developed lots within the City. For middle housing on vacant land, the

development rate varies by residential zone: R1-5 has 10 lots per 100, R1-7.5 has 8 lots per 100, R1-10 has 4 lots per 100, and R1-15 has 2 lots per 100. Each of these lots is expected to have two middle housing units, with 60% of these units being affordable at 80% AMI or below. In developed areas, the assumption is that three middle housing units will develop for every 100 existing occupied detached units, with two units per occurrence.

Similarly, for ADUs on vacant land, the development rate varies by zone, with R1-5 having 8 lots per 100, R1-7.5 seeing 6 lots per 100, R1-10 seeing 4 lots per 100, and R1-15 seeing 2 lots per 100. One ADU is expected per lot, with 75% of these units being affordable at 80% AMI or below. In developed areas, the assumption is that 2 ADUs will develop per 100 existing detached units, with one ADU per lot, and 75% of these units being affordable at 80% AMI or below.

ALTERNATIVE 2

Zoning proposed with this alternative is largely consistent with Alternative 1 with the exception of a portion of the Northeast Urban Growth Area where a mixed use center is proposed. The mixed-use center includes a mix of zoning for medium-density single-family, multifamily, and commercial areas. Alternative 2 puts greater emphasis on employment uses over residential uses in the Town Center and Commercial districts within the city because the Northeast Urban Growth Area provides some capacity for additional residential units. Specifically Alternative 2 assumes development within the Town Center (TC-Core, TC- East Village, TC- West Village) districts will be comprised of 40% residential uses and 60% employment uses. In Commercial districts (Community Commercial, Highway Commercial and Convenience Commercial), its assumed that 25% will develop with residential uses and 75% with employment uses.

This alternative proposes a higher rate of development for both middle housing and ADUs than Alternative 1. For middle housing on vacant land, the development rate is higher, with R1-5 seeing 12 lots per 100, R1-7.5 seeing 10 lots per 100, R1-10 seeing 7 lots per 100, and R1-15 seeing 5 lots per 100. Each of these lots is assumed to have three middle housing units, with 60% of them affordable at 80% AMI or below. In developed areas, 2.5 middle housing units are expected to develop for every 100 existing detached units, with an additional two units per occurrence.

For ADUs on vacant land, the development rate is also higher in Alternative 2, with R1-5 seeing 12 lots per 100, R1-7.5 seeing 10 lots per 100, R1-10 seeing 7 lots per 100, and R1-15 seeing 5 lots per 100. Each lot is assumed to have one ADU, with 75% of them affordable at 80% AMI or below. In developed areas, 4 ADUs are expected to develop for every 100 existing detached units, with one ADU per lot, and 75% of these units will be affordable at 80% AMI or below.

CALCULATING CAPACITY

To evaluate capacity of each land use alternative, the project team applied both housing density assumptions and job density assumptions to vacant, buildable land within the City limits and existing Urban Growth Area. For employment, a job density of 9 jobs per acre was applied to lands zoned as Heavy Industrial (HI), and 20 jobs per acre was applied to Commercial and Town Center zoned land.

To account for middle housing and ADU development anticipated in residential zones (R-Zones), the base density was increased to be consistent with projected rates of development assumed in each alternative discussed above. Table 1 provides a comparison of the base density assumptions in the existing land use plan (without middle housing or ADU assumptions) with the assumptions for both alternatives.

Table 1: Land Use Capacity Assumptions

| | Zoning District | Existing Land Use Plan | Alternative 1 | Alternative 2 |
|--|--|------------------------|-------------------------------|-------------------------------|
| Commercial/ Town Center Zones | Town Center Districts (TC-C, TC-WV, TC-EV) | No Mix Assumed | 60% housing 40% employment | 40% housing 60% employment |
| | Commercial Districts (CC, CH, CV) | No Mix Assumed | 50% housing 50% employment | 25% housing 75% employment |
| Residential Zones | R1-5 | 8.7 units per acre | 12 units per acre | 13 units per acre |
| | R1-7.5 | 5.8 units per acre | 8 units per acre | 9 units per acre |
| | R1-10 | 4.3 units per acre | 5 units per acre | 6 units per acre |
| | R1-15 | 2.9 units per acre | 4 units per acre | 4 units per acre |
| | AR-16 | | 16 units per acre | |
| | AR-22 | | 22 units per acre | |
| Industrial Zones | Heavy Industrial (HI) | | No housing | |

Table 2: Projected Land Capacity

| | Alternative 1 | Alternative 2 |
|--------------------------|---------------|---------------|
| New Jobs | 1,622 | 2,007 |
| New Housing Units | 5,998 | 6,484 |

It should be noted that Clark County also allocated the City 504 jobs that do not require land, including work-from home, government and construction related positions. These jobs would be in addition to jobs based upon land capacity reflected in Table 2.

INFRASTRUCTURE ASSESSMENT

Following development of the land use alternatives, the project team conducted infrastructure assessments to determine if the existing and planned systems could support the anticipated land use assumptions in each alternative. This assessment provides value in two ways: first, by identifying if there are serviceability challenges that would warrant updates to the associated capital facility plan or changes in the land use alternatives and; also, by identifying whether one alternative presents more service gaps than the other which could assist the City with selection of a preferred land use alternative. The project team conducted these assessments for water, sewer, stormwater and transportation infrastructure. The outcomes of these assessments are provided below.

WATER

The water system assessment evaluated projected growth anticipated in each land use alternative relative to the growth rate and projections within the existing Water System Plan. The current Water System Plan, adopted in 2021, addresses capital planning for development through 2039, while the land use alternatives will extend the planning period through 2045. The assessment revealed that the growth anticipated in either land use alternative aligns with the assumptions and projections in the current Water System Plan. Ultimately, the assessment concluded that the water system has sufficient capacity to meet the long-term needs of the city and can accommodate growth projected in either land use alternative. The City will need to update the Water System Plan at its statutory review period in 2031 to address capital planning between 2039 and 2045.

The project team concluded that there is not a discernable difference in water system needs to accommodate the growth in either land use alternative.

SEWER

The sanitary sewer system assessment evaluated the projected growth rate and density assumptions for land uses in each alternative for the year 2045 relative to the growth rate and density assumptions within the existing General Sewer Plan which has a planning horizon of 2040. The assessment concluded that both alternatives result in a greater number of equivalent residential units (ERUs) at buildout compared with the current plan and are expected to increase the size of gravity sewers that are required to serve undeveloped areas. The assessment also revealed that the projected population growth to 2045 will result in a decrease in growth rate assumptions in the plan. As a result, the timing of capital improvements is expected to be slower than anticipated in the current plan.

The project team concluded that there is not a significant difference between alternatives, and both would have a similar effect on the sewer system.

STORM WATER

The stormwater assessment considered implications for development of vacant land as well as the potential implications of middle housing and ADU construction within existing development for each alternative. The assessment concluded that the increased density on vacant or undeveloped land presented in either alternative would have an insignificant impact on the existing stormwater system and Stormwater Master Plan citing that stormwater mitigation will continue to be addressed at a project level. Additionally, the assessment noted that the potential increase in density and ADU construction on developed lands (in both alternatives) could have an impact on the capacity of existing stormwater infrastructure based upon the City's existing permitting thresholds for stormwater management. Different options are available to address the potential impact of increased density in developed areas and will be discussed as the project advances and updates to the Stormwater Master Plan are considered.

The project team concluded that there is not a discernable difference in stormwater management or potential impacts to existing stormwater facilities between the two alternatives.

TRANSPORTATION

To evaluate possible traffic impacts each land use alternative would have on the transportation network, Washougal was divided into travel sheds which represent areas of town which have similar access points to other areas of town and interact with the arterial network in similar ways. Each travel shed has unique characteristics and potential for future development based upon the assumptions within each land use alternative. Existing and projected traffic was evaluated in these travel sheds to evaluate trip rates at full build-out of either alternative.

The assessment revealed that there is little difference between the two alternatives with the exception of downtown and the upper reaches of 32nd Street. This is due to the higher concentration of housing in the downtown with Alternative 1, versus the higher density housing in the Northeast Urban Growth Area proposed with Alternative 2. When considering the existing roadway network, the downtown travel shed is better equipped to manage increased traffic from new growth due to the multiple east-west and north-south connections through the travel shed. Conversely, development in the upper 32nd Street area including the Northeast Urban Growth Area would most likely be funneled to 32nd Street resulting in greater congestion along that roadway.

If all housing units contemplated in each alternative were built, it would necessitate widening of 32nd Street or building an alternative route to access SR-14. It is important to note that this assessment is based upon a housing unit capacity that exceeds the housing unit allocation from Clark County of 3,735 new housing units, established for this periodic update cycle. If the required new housing units are distributed among the various travel

sheds proportionate to vacant land availability, it does not appear any individual travel shed will require significant roadway improvements in either land use alternative. However, the City of Washougal should implement traffic impact analysis requirements and other measures capable of monitoring the traffic conditions in the Upper 32nd Street travel shed.

COMMUNITY ENGAGEMENT

EVENTS

Public outreach and community engagement efforts for the Washougal 2045 Comprehensive Plan Update have been robust, gathering community input through multiple channels. Specific engagement opportunities that assisted with the development and evaluation of the land use alternatives are summarized below.

- **Washougal Onward Community Survey.** The survey was launched in October 2024 and collected input from 109 community members on issues like economic growth, housing, and transportation.
- **Comprehensive Plan Carnival.** The carnival, an open house style event, was held on November 16, 2024, at the Port of Camas-Washougal. This was a key, interactive event that drew 210 attendees and provided a platform for residents to share their perspectives on various Comprehensive Plan update topics such as land use, housing, parks and recreation, shorelines and critical areas, transportation, and climate change and resiliency.
- **Land Use Alternatives Open House and Virtual Comment Period.** The City held the open house event on February 24, 2025, at the Washougal Senior Center. The event provided an opportunity for the public to learn about key components of the alternatives and discuss them with the project team. The event drew 82 attendees, with 15 attendees submitting written comments at the event. The alternatives were also posted on the project webpage along with other related materials to provide individuals an opportunity to review and provide feedback on the alternatives being considered for the city's growth. The alternatives were available for public comment from February 24th through March 12th.

These efforts, combined with the engagement of the Community Advisory Committee (CAC), city staff, as well as the City Council and Planning Commission have provided valuable insights as the alternatives took shape and were evaluated.

FEEDBACK

A total of 73 comments regarding the land use alternatives were submitted to the City, with 15 being collected at the Land Use Alternatives open house and an additional 58 submitted

through the website. Respondents were asked to share their thoughts regarding where the City should focus growth, if another high-density center is needed, and to identify their preferred land use alternative. Of the comments received, 39 selected Alternative 1, and 14 selected Alternative 2, with the remaining 20 who did not pick an alternative. Some common themes in support of each alternative are provided below.

Alternative 1

- Focuses growth on areas with existing infrastructure and services including the city center and existing commercial corridors,
- Utilizes the downtown and waterfront to create a vibrant community hub,
- Preserves more of the small town feel by limiting dense development at the periphery of the city.

Alternative 2

- Supports more affordable housing by providing more high-density housing options,
- Provides more mixed-use development and employment opportunities.

Other comments received reflect a general concern about balancing growth with community character and livability including:

- Utility serviceability and maintenance,
- Traffic congestion,
- Environmental impacts including deforestation,
- Housing affordability and diversity,
- Support for local business.

These themes reflect the community's diverse perspectives on how to manage growth and development in a way that balances the need for housing and economic opportunities with the desire to preserve the town's character and environment.

RECOMMENDATIONS

First and foremost, it is important to consider whether each alternative achieves the minimum population, housing and job allocations from Clark County, can be serviced by both public utilities and roadway infrastructure, and meets the goals of the community.

As detailed above, both land use alternatives achieve the required population, housing and job allocations required for this periodic update. The utility serviceability assessments revealed that there are no significant differences between the alternatives specific to water, sewer or stormwater infrastructure needs. The transportation network assessment indicates that Alternative 1 is preferred given that it produces less traffic on 32nd Street reducing the probability of capacity issues on that roadway. Finally, community feedback received through this process reflects a strong preference for Alternative 1. For these reasons the project team recommends that the City adopt Alternative 1.

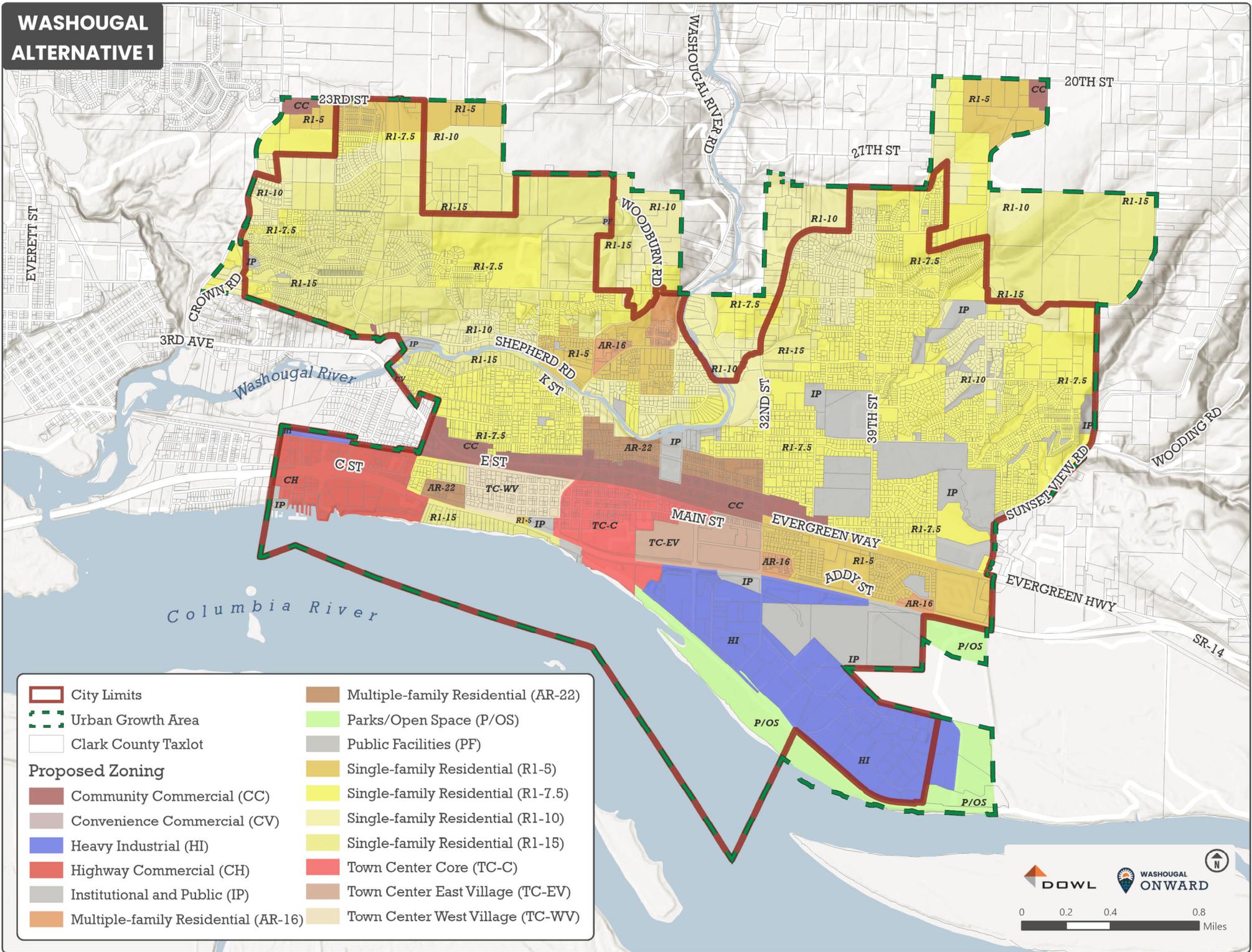
ATTACHMENTS

LAND USE ALTERNATIVE 1 MAP

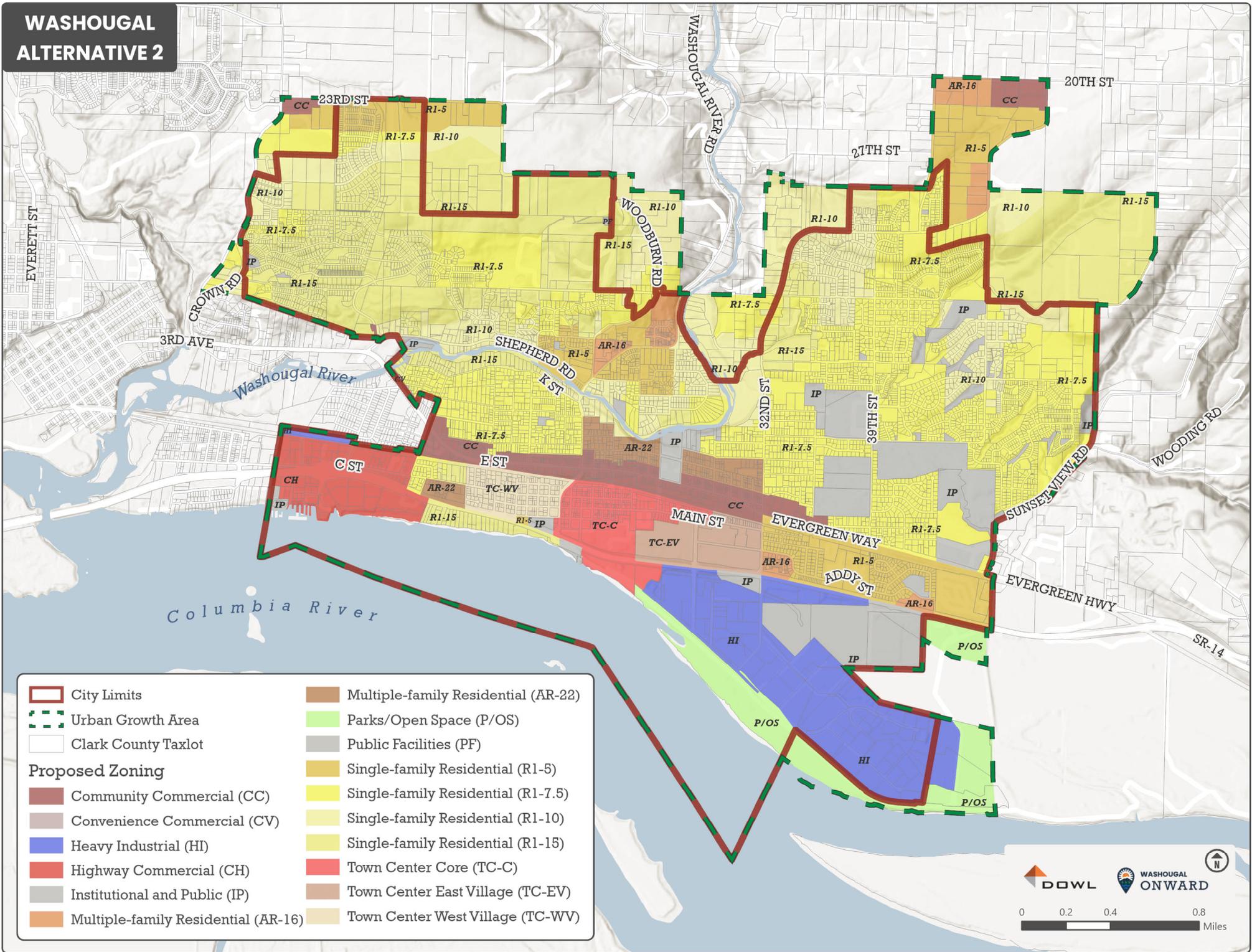
LAND USE ALTERNATIVE 2 MAP

TRAVEL SHEDS MAP

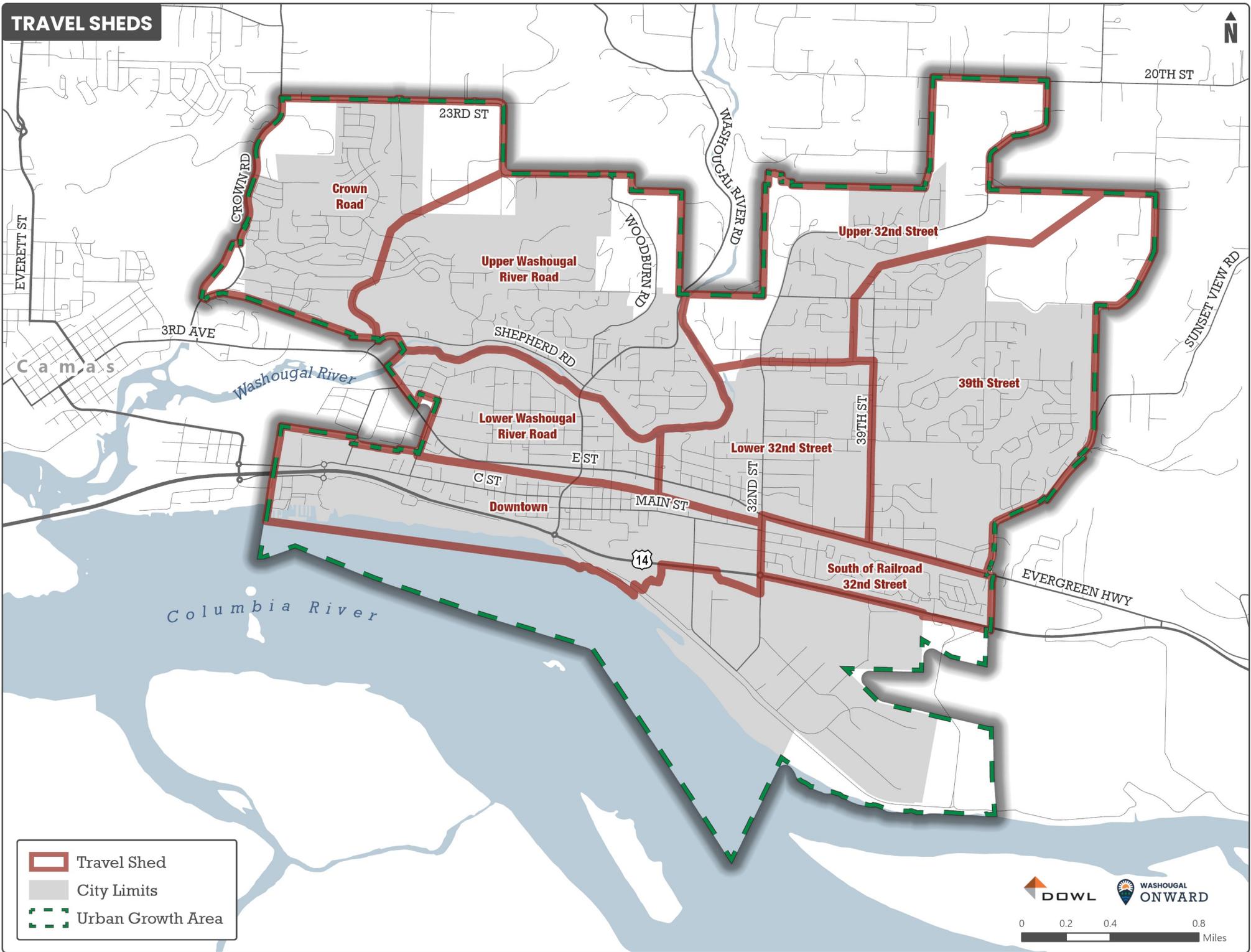
WASHOUGAL ALTERNATIVE 1



WASHOUGAL ALTERNATIVE 2



TRAVEL SHEDS



Water System Impacts

Date: March 12, 2025
Project name: 2025-2045 Comprehensive Plan Update
Project no: D3914700
Attention: Jessica Herceg
Company: DOWL, LLC
Prepared by: Dan Shafar, PE ENV SP
Copies to: file

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Executive Summary

The City of Washougal is updating its Comprehensive Plan for the planning horizon of 2025-2045. The long-term residential population growth and anticipated employment figures distributed to the City by Clark County provide the basis for evaluating the City's land use, planning policies, and infrastructure capacity. Jacobs reviewed the residential and employment estimates, the proposed urban growth boundary, and the existing Water System Plan and determined that City of Washougal's water system (shown in attachment 1) can accommodate the projected growth included in the two land use alternatives being considered provided the City continues to follow the capital improvement planning the water system as included in the existing Water System Plan.

Water System Plan Summary

The City's existing Water System Plan was prepared in August 2021 and projected growth through 2039. Water System Planning tends to summarize planning level water using an equivalent residential units (ERU) converting all water system demands into ERU's for the ease of comparison. The projections in the Water System Plan are based on the following key assumptions:

- 2019 population estimate of 16,500 based on OFM estimates.
- 2035 population target of 22,347 in accordance with the 2015 Comprehensive Plan.
- Average residential household size of 2.73 based on recent census data.
- Non-residential ERU classification projected at three percent annual growth.
- Population beyond 2035 projected at a 1.9 percent annual growth to match pre-2035 growth rate.
- Existing UGA zoning.

Using these assumptions the Total System Population and ERU Projections were calculated in the existing Water System Plan in Table 2-11. Using the assumed 1.9% growth rate the trends in the Water System were further extrapolated to 2045 in Tables 1 and 2 below. It is worth noting that the 2045 population projection developed using the existing growth rate exceeds Washougal's 2045 population estimate based upon the population allocation to the City by Clark County as part of this periodic update.

Table 1. Projected Population and Equivalent Residential Units

| Projected Population and ERU's | 2019 | 2039 | 2045* |
|--------------------------------|------|------|-------|
|--------------------------------|------|------|-------|

Memorandum

| | | | |
|-----------------------|--------|--------|--------|
| Projected Population | 16,500 | 24,108 | 27,503 |
| Total ERU's | 9,029 | 14,615 | 16,673 |
| Residential ERU's | 4,870 | 7,977 | 8,931 |
| Non-Residential ERU's | 4,159 | 6,638 | 7,742 |

Notes:

1. 2045 Population and ERUs calculated using an annual growth trend of 1.9% developed as part of the current Water System Plan.

The projected water system demands in millions of gallons per day (MGD) in 2039 are included in Table 2 below. Using the assumed 1.9% growth rate the trends in the Water System were further extrapolated to 2045.

Table 2. Projected Water Demands

| Projected Water Demand (MGD) | 2019 | 2039 | 2045 ¹ |
|------------------------------|------|-------|-------------------|
| Average Day Demand (ADD) | 1.62 | 2.62 | 2.99 |
| Max Day Demand (MDD) | 3.57 | 5.83 | 6.65 |
| Peak Hour Demand (PHD) | 6.36 | 10.40 | 11.86 |

Notes:

1. 2045 Projected Water Demands calculated using an annual growth trend of 1.9% developed as part of the current Water System Plan.

The Water System Plan further identified that the number of service connections by different customer class. In 2018 the total number of residential service meters in the system totaled 5,014 and the 287 commercial/industrial connections.

The City of Washougal has a comprehensive water metering program which was used to assess the average single family use in gallons per day (gpd). The City's average for each pressure zone is summarized in the Water System. Across the system, the average water use for each single family unit is 197 gpd. The Washington State Department of Health's Water System Design Manual includes in Table 3-2 maximum daily water system demands for non-residential uses. Based on a comparison of the data and likely commercial/industrial uses anticipated, each employment job within the City of Washougal would likely use between 35 and 50 gpd.

Comprehensive Planning

For the 2025-2045 Comprehensive Plan update the team reviewed two different land use alternatives to accommodate the anticipated growth. These alternatives did not include an expansion of the urban growth boundary. The anticipated growth is able to be accommodated within the existing urban growth boundary based upon updated land use zoning and the County's Vacant Buildable Land Model (VBLM). Using the assumption of 197 gpd for each residential unit and 50 gpd for each employment job Table 3 includes the newly anticipated water system demands for each alternative.

Table 3. Comprehensive Plan Housing and Population Estimates

| | 2045 Alternative 1 | 2045 Alternative 2 |
|---------------------------------|-----------------------|-----------------------|
| New housing units | 6,244 | 5,874 |
| New employment jobs | 1,484 | 1,741 |
| Anticipated Growth in ADD (gpd) | 1,304,268 | 1,244,228 |

The following table summarizes the current and future 2045 water demands using the growth trends included in the Water System Plan and the land use alternatives being considered for the Comprehensive Plan Update.

Table 4. Comparison of 2045 Projected Water System Demands

| | Water System Plan | | | | Comprehensive Plan Alternatives |
|---------------------|-------------------|-------------------|--------|-------------------|---------------------------------|
| | 2019 | 2025 ¹ | 2039 | 2045 ² | 2045 ³ |
| Population | 16,500 | 18,472 | 24,108 | 27,503 | - |
| Total ERU | 9,029 | 10,108 | 14,615 | 16,673 | - |
| Residential ERU | 4,870 | 5,452 | 7,977 | 9,100 | - |
| Non-Residential ERU | 4,159 | 4,65 | 6,638 | 7,573 | - |
| ADD | 1.62 | 1.81 | 2.62 | 2.99 | 3.11 |
| MDD | 3.57 | 4.00 | 5.83 | 6.65 | 6.92 |
| PHD | 6.36 | 7.12 | 10.40 | 11.86 | 12.35 |

Notes:

1. The 2025 data is calculated using the anticipated growth trend from the Water System Plan. This column will be updated with actual data once available.
2. This 2045 column represents the anticipated growth and demand calculations based on methodology and assumptions from the Water System Plan.
3. This 2045 column is calculated using the anticipated growth projections from the 2025-2045 Comprehensive Plan. Demands calculated using most conservative housing and employment figures from both Alternative 1 and Alternative 2.

In general, the residential and employment projections included in the 2045 Comprehensive Plan, regardless of which land use alternative is selected are generally consistent with the long-range planning assumptions of the Water System Plan. The City's current approach for water system development is consistent with the potential changes based upon the draft land use alternatives in development.

The City's water system plan was evaluated in 2019 and will require an update at its scheduled 10-year interval to reflect the future land use map, once selected and the 2025-2045 Comprehensive Plan, is adopted. The City's current water system plan is suitable to address continued population and employment growth through 2039. The proposed comprehensive plan continues to build upon the long-term trends of the water system plan. Therefore, continued investment and improvements within the water system may be required to address continued growth between 2039 and 2045.

It is important to note that the key driver of growth within the City's urban growth boundary will be a mix of infill, middle housing, and new residential lots. It can largely be assumed that the required accessory dwelling units (ADUs) and middle housing growth will occur in Zone 1 of the City's Water System (shown in Attachment 1). Zone 1 includes the lowest demand projections per ERU at 159 gpd. When applying this reduced flow projection per ERU, the adjusted ADD is 2.88 MGD, slightly less than the 2045 Water System Plan extrapolated ADD of 2.99 MGD, confirming that the assumptions and trends within the Water System Plan remain valid.

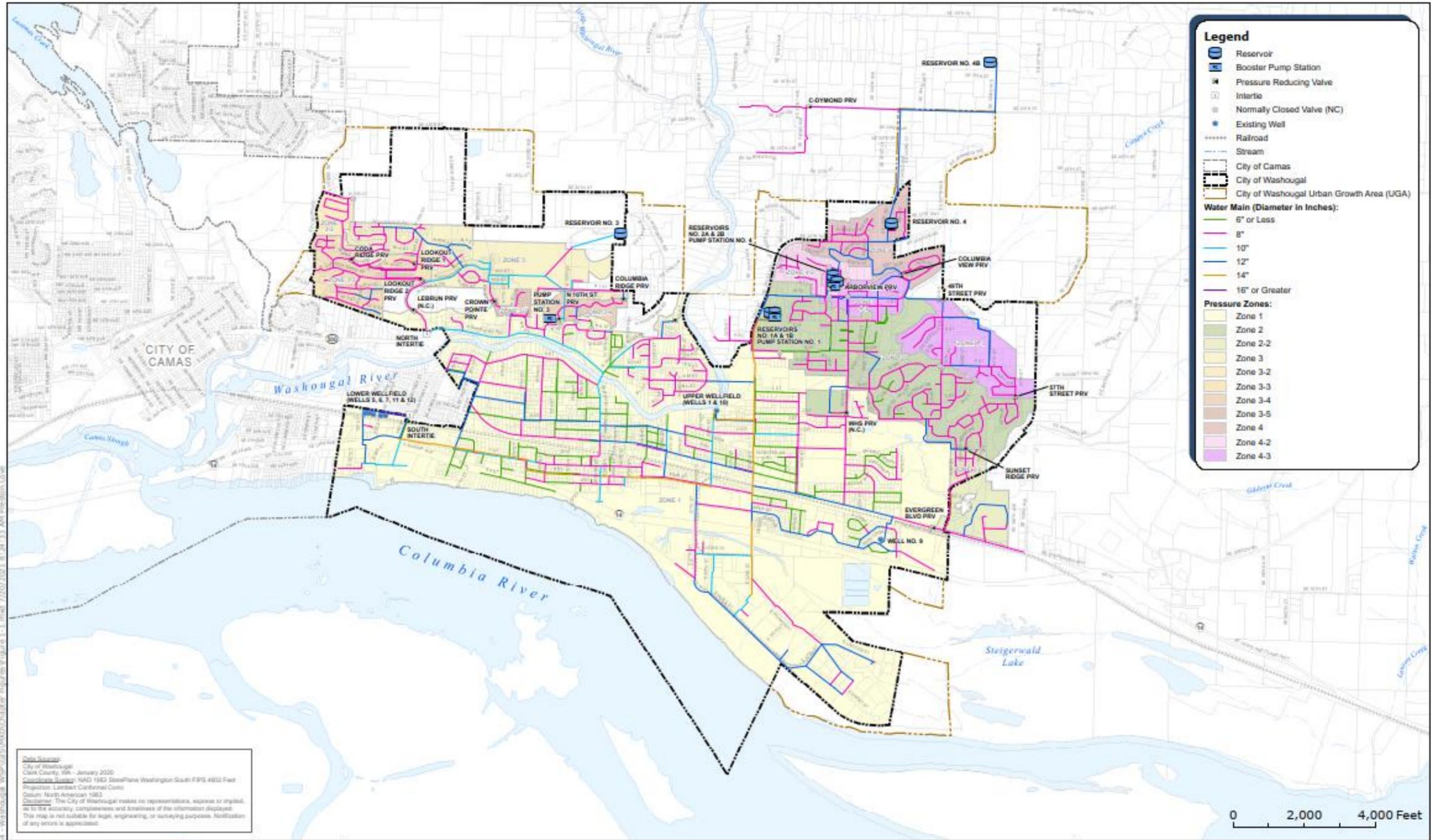
The City's current production resources total a 7.88 MGD firm capacity is currently adequate to meet the Maximum Day Demand through 2045. Similarly, the City has sufficient water rights to meet the 2045 planning projections.

Recommendations

The analysis of the projected growth anticipated in the land use alternatives being considered for the 2025-2045 Comprehensive Plan update are in alignment with the planning assumptions and projections in the 2021 Water System Plan. So long as the City continues its' investment and project completion in accordance with the Water System Plan, the City will have sufficient Water System capacity to meet the long-term needs of the City. The following items are recommended to maintain sufficient water system capacity for the full 2045 planning period:

1. Complete the Water System Plan update as required by WAC 246-290-100 at its' scheduled update every 10-years.
2. Evaluate actual development trends, population, and employment figures annually to adjust capital improvement plan implementation currently identified as Tables 8-1 and 8-2 in the Water System Plan.
3. Provide necessary funding mechanisms capable of meeting the capital plan identified in the Water System Plan.
4. Consider leveraging applicable grant and low interest funding sources to reduce demands on the City's rate payers.
5. Actively monitor emerging trends in water system security, resiliency, and water quality to forecast changes in the required capital improvement program not anticipated in the 2021 Water System Plan.

Attachment 1 - Water System Map



Date Source:
 City of Washougal
 Clark County, WA - January 2020
Coordinate System: NAD 1983 StatePlane Washington South FIPS 4602 Feet
 Projection: Lambert Conformal Conic
 Datum: North American 1983
 Disclaimer: The City of Washougal makes no representations, express or implied,
 as to the accuracy, completeness and timeliness of the information displayed.
 This map is not suitable for legal, engineering, or surveying purposes. Notification
 of any errors is appreciated.

0 2,000 4,000 Feet



**City of Washougal
 Water System Plan Update**

**Figure 1-1
 Existing Water System Facilities**

DATE: June 30, 2025
TO: Jessica Herceg, AICP, DOWL
FROM: Wes Wegner, PE, Wallis Engineering
RE: General Sewer Planning Impacts of Land Use Alternatives
ATTACHMENTS: Attachment A: Zoning Map
Attachment B: Zoning Map Alternatives
Attachment C: Future Land Use Map



DIGITALLY SIGNED

PROJECT PURPOSE AND INTRODUCTION

The City of Washougal (City) is currently updating their Comprehensive Plan. The 2025-2045 Comprehensive Plan Update is a 20-year plan that will guide the City's growth. Two land use alternatives have been developed by DOWL for the Comprehensive Plan. In addition, population growth rates for the City have been updated recently by the County. Both the land use and the population growth rates affect the assumptions and recommendations of the City's General Sewer Plan & Facility Plan (GSP/FP).

The GSP/FP provides recommendations for capital improvement projects necessary to serve existing and future users. To provide these recommendations, wastewater flow rates are estimated for existing conditions, and for future conditions at end of the 20-year planning period. To determine if wastewater improvements are required within the 20-year planning period, the population and commercial/industrial growth rates are the primary influencing factors. However, if gravity sewer improvements are necessary, they are sized based on the buildout flow rates, which are based on land use.

This memorandum evaluates the impact of two land use alternatives and the updated population projections on the GSP/FP.

LAND USE ALTERNATIVES

The current GSP was based on the zoning map included in the *2015-2035 Comprehensive Plan*. That land use map is included as Attachment A. Two potential alternatives for updating the zoning map have been developed by DOWL for the Comprehensive Plan Update, included as Attachment B.

In addition to changes to the zoning maps, the new land use alternatives have updated the minimum and maximum allowable density and resultant Equivalent Residential Units (ERUs) for each land use. A summary of the land use densities used in the current GSP and for the two alternatives are summarized below in Table 1.

Table 1: Land Use ERU Density

| Land Use Zone | 2019 GSP/FP Maximum Density (ERUs/Acre) | Alternative 1 Maximum Density | Alternative 2 Maximum Density |
|---------------|---|--|-------------------------------|
| | | Includes Middle Housing and ADUs (ERUs/Acre) | |
| R1-15 | 2.9 | 4 | 4 |
| R1-10 | 4.4 | 5 | 6 |
| R1-7.5 | 5.8 | 8 | 9 |
| R1-5 | 8.7 | 12 | 13 |
| AR-16 | 16 | 16 | 16 |
| AR-22 | 22 | 22 | 22 |
| TC-WV | 3.8 ^a | 12 ^b | 8 ^d |
| TC-C | 3.8 ^a | 18 ^b | 12 ^d |
| TC-EV | 3.8 ^a | 18 ^b | 12 ^d |
| CC | 3.8 ^a | 15 ^c | 7.5 ^e |
| CH | 3.8 ^a | 15 ^c | 7.5 ^e |
| CV | 3.8 ^a | 15 ^c | 7.5 ^e |

- a. Previous GSP assumed 1,000 gallons per day per acre for all commercial zoning, which is equivalent to 3.8 ERUs per acre based on 100 gallons per capita per day and 2.61 persons per ERU.
- b. Alternative 1 TC-WV, TC-C, and TC-EV zones assume 60% of total area is residential.
- c. Alternative 1 CC, CH, and CV zones assume 50% of total area is residential.
- d. Alternative 2 TC-WV, TC-C, and TC-EV zones assume 40% of total area is residential.
- e. Alternative 2 CC, CH, and CV zones assume 25% of total area is residential.

As shown in Table 1, the ERU densities of all zones will increase compared to the ERU densities assumed in the GSP/FP. This indicates that the wastewater flow from residential sources at buildout conditions may be higher than assumed in the GSP/FP. To determine the magnitude of the increase in buildout flow rate, buildout ERU projections were calculated for each sewer basin. This was done by summing the area of each zone in each basin, and calculating the quantity of ERUs based on the ERU densities in Table 1. The ERU projections are shown below in Table 2.

Table 2: Basin ERU Allocation

| Basin | Total Acres | 2019 GSP/FP ERUs | Alternative 1 (ERUs) | Alternative 2 (ERUs) |
|-------|-------------|------------------|----------------------|----------------------|
| A | 113 | 450 | 580 | 645 |
| B | 196 | 843 | 2,668 | 2,668 |
| C | 94 | 409 | 723 | 730 |
| D | 126 | 659 | 1,187 | 1,181 |
| E | 83 | 977 | 1,069 | 1,073 |
| F | 184 | 1,181 | 3,036 | 3,036 |
| G | 206 | 1,297 | 1,429 | 1,430 |
| H | 377 | 1,310 | 1,660 | 1,631 |
| I | 91 | 629 | 602 | 631 |
| J | 166 | 633 | 608 | 631 |
| K | 53 | 418 | 387 | 414 |
| L | 378 | 1,014 | 761 | 779 |
| M | 172 | 654 | 690 | 749 |
| N | 451 | 2,180 | 2,143 | 2,240 |
| O | 374 | 1,067 | 1,096 | 1238 |

| Basin | Total Acres | 2019 GSP/FP ERUs | Alternative 1 (ERUs) | Alternative 2 (ERUs) |
|-------|-------------|------------------|----------------------|----------------------|
| P | 136 | 565 | 553 | 589 |
| Q | 129 | 437 | 454 | 454 |
| R | 237 | 895 | 1,015 | 1,015 |
| S | 82 | 586 | 566 | 566 |
| T | 270 | 760 | 800 | 800 |
| U | 210 | 1,047 | 1,030 | 1,055 |
| V | 117 | 498 | 496 | 505 |
| W | 115 | 296 | 323 | 335 |
| X | 182 | 949 | 1,475 | 2,049 |
| Y | 34 | 83 | 89 | 101 |
| Z | 9 | 75 | 73 | 73 |
| AA | 11 | 49 | 47 | 47 |
| BB | 141 | 661 | 830 | 853 |
| CC | 76 | 49 | 64 | 64 |
| Total | 4,810 | 20,673 | 26,457 | 27,584 |

The total ERUs under the new land use alternatives increase by approximately 28% for Alternative 1 and by 33% for Alternative 2, compared to the assumptions in the GSP/FP. The small difference between Alternative 1 and Alternative 2 is likely to be insignificant with regards to the sewer infrastructure required to serve buildout conditions.

POPULATION PROJECTIONS

The population projections used in the GSP/FP were based on an estimated 2015 population of 15,932 and a 2035 population of 26,415, which assumed a projected growth rate of 2.53%, assuming constant growth throughout the planning period. The updated population projections are based on an estimated 2023 population of 18,026 and 2045 population of 24,874. This equates to an updated growth rate of 1.46%.

In the 2021 GSP/FP, population and ERU projections were estimated as follows:

1. The total number of residential units being served by sewers in 2015 was estimated based upon billing information for both water and sewer services, and a count of dwelling units from a 2015 aerial photograph.
2. Residential units for the design years 2020-2040 are determined based on an assumed household size of 2.61 persons per residential unit, and population growth rate of 2.53%, as discussed above. The total for each future year is the sum of the projected number of new units for that year and the total from the previous year. Note that the existing household size is larger than that projected for the future. The value of 2.61 people per household for future growth was selected to be consistent with values for population and residential service connections which are included in the City's *2012 Water System Plan Update*.
3. Existing (2020) values for commercial/light industrial and public ERUs were estimated using data from the City's current Comprehensive Plan, the 2006 General Sewer Plan, the 2012 Water System Plan, and billing records for water and sewer services. A growth rate of 3% was assumed for future growth, which corresponds to planning assumptions used in the 2012 Water System Plan. "Commercial/light industrial" is defined as the total of both commercial and light industrial land uses. "Public" is defined as public land uses, such as publicly owned buildings, schools, and parks.

Population and ERU projections from the 2021 GSP/FP are shown below in Table 3. Note that for the 2021 GSP/FP, the planning period was between 2020 and 2040.

Table 3: Population and ERU Projections, 2021 GSP/FP

| Year | Population | Total Residential ERUs | Commercial/ Industrial ERUs | Public ERUs | Total ERUs | Equivalent Population |
|-------------|-------------------|-------------------------------|------------------------------------|--------------------|-------------------|------------------------------|
| 2015 | 15,932 | 5,047 | 1,202 | 181 | 6,430 | 19,542 |
| 2016 | 16,340 | 5,203 | 1,239 | 186 | 6,628 | 20,059 |
| 2017 | 16,758 | 5,364 | 1,276 | 192 | 6,832 | 20,591 |
| 2018 | 17,187 | 5,528 | 1,315 | 198 | 7,041 | 21,136 |
| 2019 | 17,627 | 5,697 | 1,355 | 204 | 7,256 | 21,696 |
| 2020 | 18,079 | 5,869 | 1,397 | 210 | 7,476 | 22,271 |
| 2021 | 18,541 | 6,047 | 1,439 | 216 | 7,702 | 22,861 |
| 2022 | 19,016 | 6,229 | 1,483 | 223 | 7,934 | 23,468 |
| 2023 | 19,503 | 6,415 | 1,528 | 229 | 8,173 | 24,090 |
| 2024 | 20,002 | 6,607 | 1,575 | 236 | 8,417 | 24,728 |
| 2025 | 20,514 | 6,803 | 1,623 | 243 | 8,669 | 25,384 |
| 2026 | 21,040 | 7,004 | 1,672 | 251 | 8,926 | 26,057 |
| 2027 | 21,578 | 7,210 | 1,723 | 258 | 9,191 | 26,749 |
| 2028 | 22,131 | 7,422 | 1,775 | 266 | 9,463 | 27,458 |
| 2029 | 22,697 | 7,639 | 1,829 | 274 | 9,742 | 28,187 |
| 2030 | 23,279 | 7,862 | 1,885 | 282 | 10,029 | 28,935 |
| 2031 | 23,875 | 8,090 | 1,943 | 290 | 10,323 | 29,703 |
| 2032 | 24,486 | 8,324 | 2,002 | 299 | 10,625 | 30,491 |
| 2033 | 25,113 | 8,564 | 2,063 | 308 | 10,935 | 31,300 |
| 2034 | 25,756 | 8,811 | 2,125 | 317 | 11,254 | 32,131 |
| 2035 | 26,415 | 9,063 | 2,190 | 327 | 11,581 | 32,985 |
| 2036 | 27,091 | 9,323 | 2,257 | 337 | 11,916 | 33,861 |
| 2037 | 27,785 | 9,588 | 2,326 | 347 | 12,261 | 34,760 |
| 2038 | 28,496 | 9,861 | 2,396 | 357 | 12,615 | 35,683 |
| 2039 | 29,226 | 10,140 | 2,469 | 368 | 12,978 | 36,631 |
| 2040 | 29,974 | 10,427 | 2,545 | 379 | 13,351 | 37,605 |

The population and ERU projections were updated using the same assumptions as above, but updating the residential population projections based on the 2025 population projection update. These population and ERU projections are shown below in Table 4. The planning period for this effort is assumed to be 2025 to 2045.

Table 4: Updated Population and ERU Projections

| Year | Population | Total Residential ERUs | Commercial/ Industrial ERUs | Public ERUs | Total ERUs | Equivalent Population |
|------|------------|------------------------|-----------------------------|-------------|------------|-----------------------|
| 2015 | 15,932 | 5,047 | 1,202 | 181 | 6,430 | 19,542 |
| 2016 | 16,167 | 5,137 | 1,239 | 186 | 6,562 | 19,886 |
| 2017 | 16,405 | 5,228 | 1,276 | 192 | 6,697 | 20,238 |
| 2018 | 16,647 | 5,321 | 1,315 | 198 | 6,834 | 20,596 |
| 2019 | 16,893 | 5,415 | 1,355 | 204 | 6,974 | 20,962 |
| 2020 | 17,142 | 5,510 | 1,397 | 210 | 7,117 | 21,334 |
| 2021 | 17,394 | 5,607 | 1,439 | 216 | 7,262 | 21,714 |
| 2022 | 17,651 | 5,706 | 1,483 | 223 | 7,411 | 22,102 |
| 2023 | 18,026 | 6,907 | 1,528 | 229 | 8,664 | 22,613 |
| 2024 | 18,292 | 7,008 | 1,575 | 236 | 8,819 | 23,018 |
| 2025 | 18,561 | 7,112 | 1,623 | 243 | 8,977 | 23,431 |
| 2026 | 18,835 | 7,217 | 1,672 | 251 | 9,139 | 23,853 |
| 2027 | 19,113 | 7,323 | 1,723 | 258 | 9,304 | 24,283 |
| 2028 | 19,395 | 7,431 | 1,775 | 266 | 9,472 | 24,722 |
| 2029 | 19,681 | 7,540 | 1,829 | 274 | 9,644 | 25,170 |
| 2030 | 19,971 | 7,652 | 1,885 | 282 | 9,819 | 25,627 |
| 2031 | 20,265 | 7,764 | 1,943 | 290 | 9,997 | 26,093 |
| 2032 | 20,564 | 7,879 | 2,002 | 299 | 10,180 | 26,569 |
| 2033 | 20,867 | 7,995 | 2,063 | 308 | 10,366 | 27,055 |
| 2034 | 21,175 | 8,113 | 2,125 | 317 | 10,556 | 27,551 |
| 2035 | 21,487 | 8,233 | 2,190 | 327 | 10,750 | 28,057 |
| 2036 | 21,804 | 8,354 | 2,257 | 337 | 10,948 | 28,573 |
| 2037 | 22,125 | 8,477 | 2,326 | 347 | 11,150 | 29,101 |
| 2038 | 22,452 | 8,602 | 2,396 | 357 | 11,356 | 29,639 |
| 2039 | 22,783 | 8,729 | 2,469 | 368 | 11,566 | 30,188 |
| 2040 | 23,119 | 8,858 | 2,545 | 379 | 11,781 | 30,749 |
| 2041 | 23,460 | 8,988 | 2,622 | 390 | 12,001 | 31,322 |
| 2042 | 23,805 | 9,121 | 2,702 | 402 | 12,225 | 31,907 |
| 2043 | 24,156 | 9,255 | 2,784 | 414 | 12,454 | 32,504 |
| 2044 | 24,513 | 9,392 | 2,869 | 427 | 12,687 | 33,114 |
| 2045 | 24,874 | 9,530 | 2,956 | 439 | 12,926 | 33,737 |

The updated population projections result in a lower growth rate and fewer ERUs in 2040 compared to the previous 2040 projections. This indicates that the updated planning assumptions will not impact the timing of capital improvements recommended in the 2021 GSP/FP.

SUMMARY

The two land use alternatives both result in a greater number of buildout residential ERUs compared to the GSP/FP. This indicates that gravity sewers that are required to serve undeveloped areas within the planning period may need to be larger than what is currently recommended by the GSP/FP.

The differences between Alternatives 1 and 2 do not appear to be significant, and both alternatives are anticipated to have a similar effect on the sewer system.

The updated growth rates are lower than the GSP/FP assumed, and therefore the timing of capital improvements is expected to be slower than anticipated in the GSP/FP. It is possible that the land use alternatives will encourage growth in different areas of the City at different times. However, the timing of specific developments is beyond the scope of this analysis.

CONCLUSIONS

The City has selected Alternative 1 as the preferred Land Use Alternative. A Future Land Use Map was prepared to graphically show the proposal and is included as Attachment C. As discussed above, the resulting buildout residential ERUs are expected increase in comparison to those considered in the current GSP/FP, but the 2040 population projections are anticipated to be lower than the GSP/FP assumptions based on the current 2023 population and the corresponding growth rate of 1.46%.

With the updated population projections estimated from the 2023 population and the corresponding growth rate being lower than that assumed in the current GSP/FP, completing a formal update of the GSP/FP is not recommended based on the benefit compared to the costs of completing the update. However, Washougal Public Works and Engineering staff have identified that an amendment to the current GSP/FP would be beneficial to document impacts of the land use changes to current listed capital projects. Impacted capital projects are limited to those which include sewer facilities that are commonly designed for a design life which exceeds the typical 20-year planning period including pump station wet wells, force mains and gravity sewers that serve sewerage basins with undeveloped land both within current city limits and outside the current Growth Management Area.

ATTACHMENT A
ZONING MAP



0 1000 2000
SCALE IN FEET

Legend

SINGLE FAMILY RESIDENTIAL

-  R1-15
-  R1-10
-  R1-7.5
-  R1-5

MULTI-FAMILY RESIDENTIAL

-  R-16
-  R-22

-  Rural-5
-  Highway Commercial
-  Community Commercial
-  Convenience Commercial
-  Light Industrial
-  Heavy Industrial
-  Parks and Open Space
-  Schools and Public Facilities
-  Agriculture
-  Urban Reserve-10

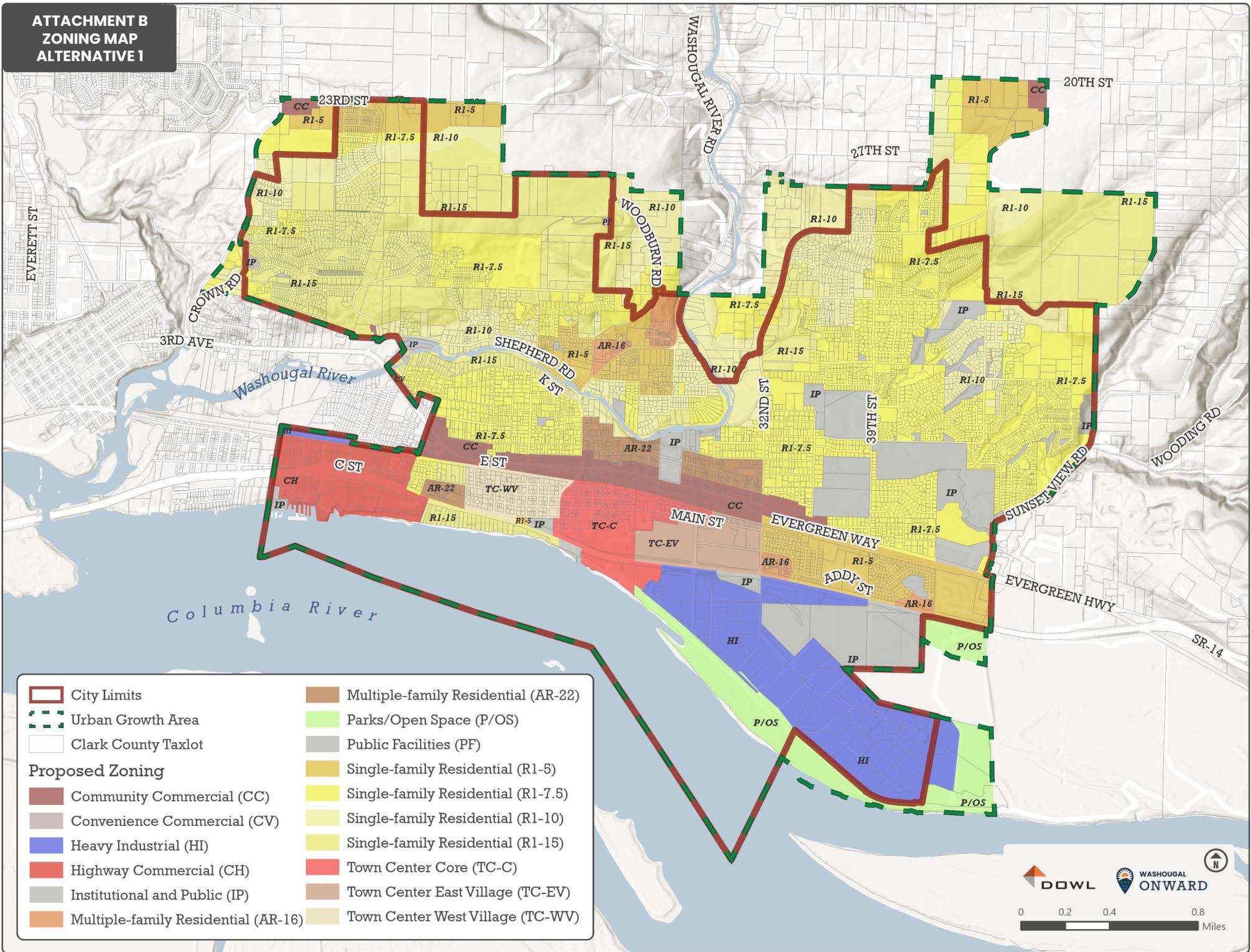
-  UGA Boundary
-  Existing City Limits

Columbia River
Gorge Scenic
Area Boundary

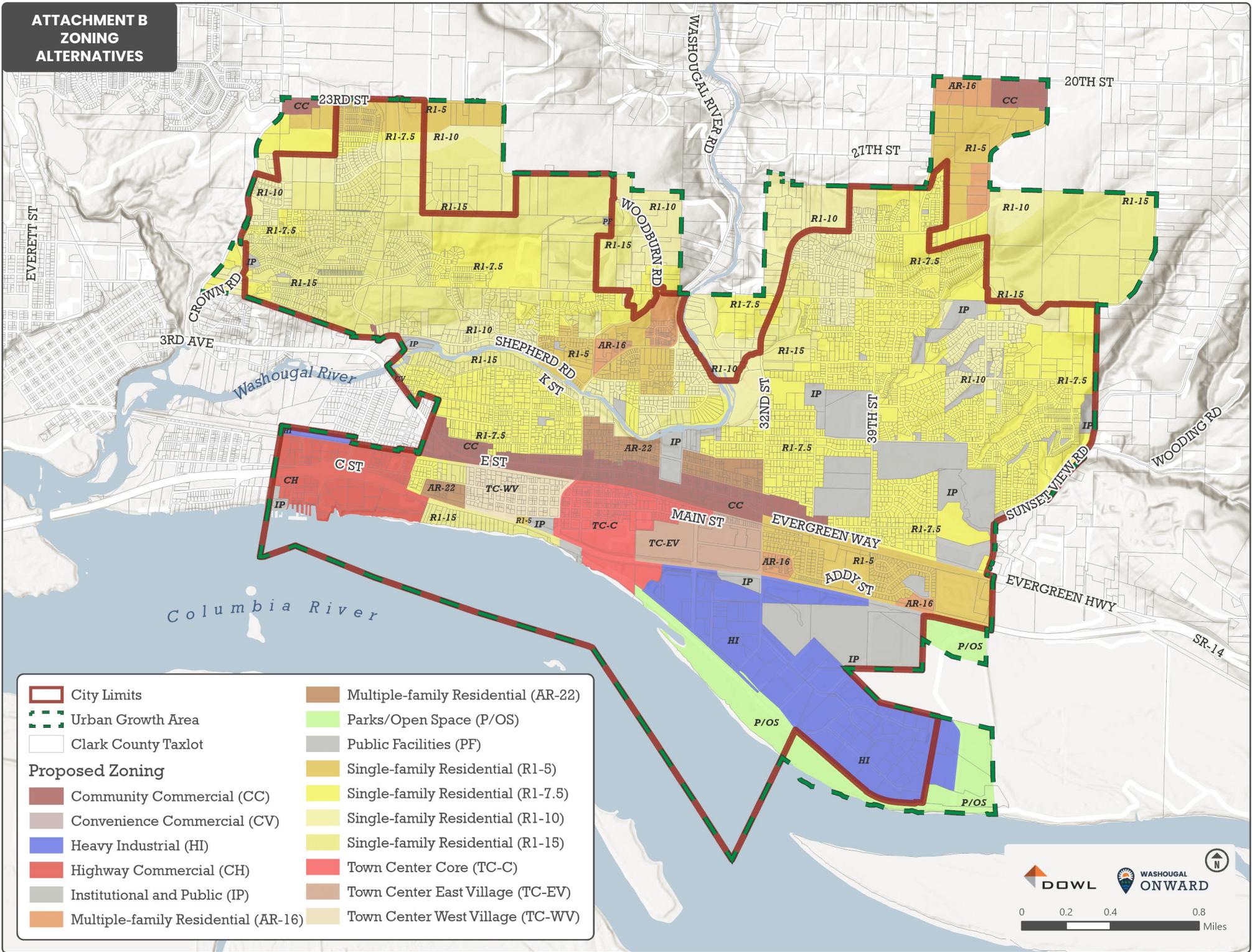


Figure 3.4
Zoning Map
City of Washougal
General Sewer Plan and Wastewater Facility Plan
February 2021

**ATTACHMENT B
ZONING MAP
ALTERNATIVE 1**



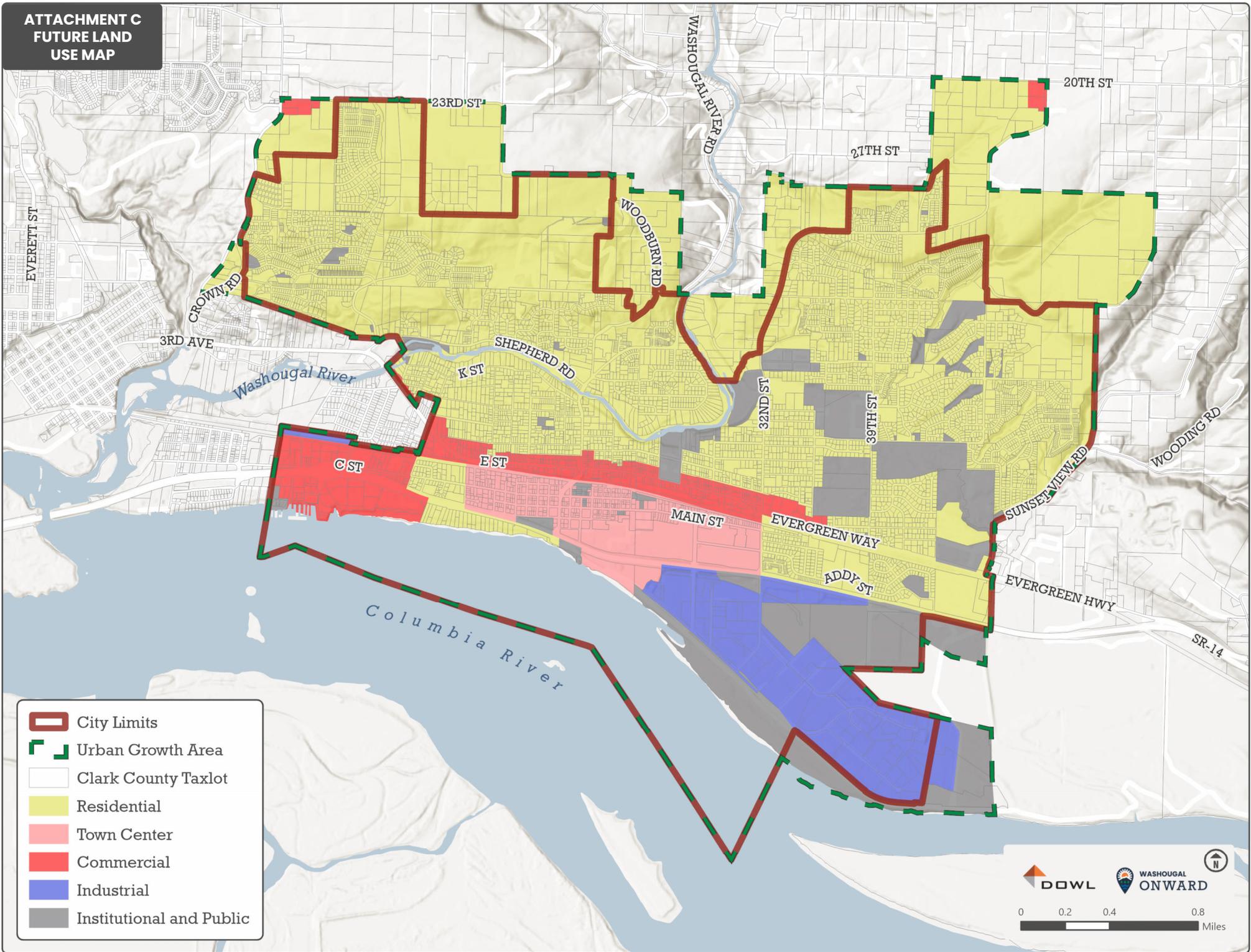
**ATTACHMENT B
ZONING
ALTERNATIVES**



- | | |
|-------------------------------------|-------------------------------------|
| City Limits | Multiple-family Residential (AR-22) |
| Urban Growth Area | Parks/Open Space (P/OS) |
| Clark County Taxlot | Public Facilities (PF) |
| Proposed Zoning | |
| Community Commercial (CC) | Single-family Residential (R1-5) |
| Convenience Commercial (CV) | Single-family Residential (R1-7.5) |
| Heavy Industrial (HI) | Single-family Residential (R1-10) |
| Highway Commercial (CH) | Single-family Residential (R1-15) |
| Institutional and Public (IP) | Town Center Core (TC-C) |
| Multiple-family Residential (AR-16) | Town Center East Village (TC-EV) |
| | Town Center West Village (TC-WV) |

0 0.2 0.4 0.8 Miles

**ATTACHMENT C
FUTURE LAND
USE MAP**



-  City Limits
-  Urban Growth Area
-  Clark County Taxlot
-  Residential
-  Town Center
-  Commercial
-  Industrial
-  Institutional and Public





0 0.2 0.4 0.8 Miles



DATE: June 30, 2025
TO: Jessica Herceg, AICP, DOWL
FROM: Wes Wegner, PE, Wallis Engineering
RE: Stormwater Master Plan Impacts of Land Use Scenarios
ATTACHMENTS: Attachment A: Preferred Land Use Alternative



DIGITALLY SIGNED

SECTION 1: INTRODUCTION

The City of Washougal (City) is updating their Comprehensive Plan (CP). The 2025-2045 CP update is a 20-year planning document that will guide the City's growth. Two land use scenarios have been developed by DOWL for the CP. The City's capital facilities associated with the CP update will be impacted based on the proposed changes from the current plan and require evaluation.

This memorandum evaluates the impact of two land use scenarios proposed for the CP's recommendations and their anticipated impacts on the City's current *Stormwater Master Plan (SMP)*.

SECTION 2: EXISTING CONDITIONS AND STANDARDS

2.1 Existing Conditions:

The City has a population of approximately 17,000 and is located on the banks of the Columbia River. Stormwater runoff within the City's drainage basins is conveyed to a combination of natural waterbodies or to the groundwater through infiltration facilities. Those waterbodies include the Washougal River, Gibbons Creek, and Lacamas Creek – all of which ultimately flow into the Columbia River. Direct outfalls to the Columbia River are also present.

The existing stormwater management system throughout the City is comprised of public and privately-owned infiltration, detention, treatment and conveyance systems.

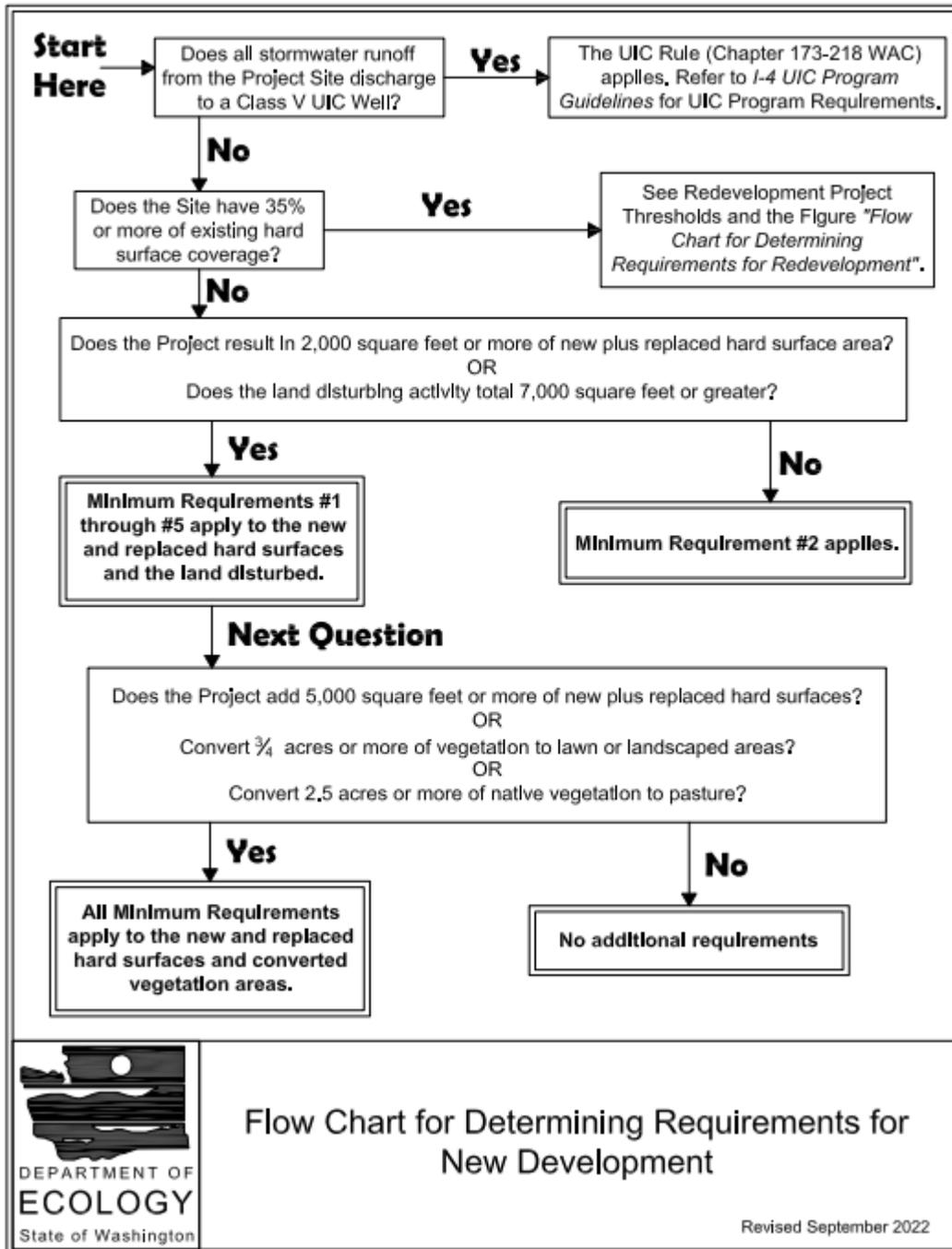
2.2 Existing Standards:

The City's MS4 Stormwater system is under a Western Washington Phase II Municipal Stormwater Permit (Permit).

The Washington State Department of Ecology (Ecology) develops and administers the Permit. Under this Permit, the City adopted Ecology's *2019 Stormwater Management Manual for Western Washington (SWMMWW)* and anticipates updating to the 2024 *SWMMWW* in 2025.

The 2024 *SWMMWW* specifies thresholds to determine when the Minimum Requirements apply for stormwater management. Figures I-3.2 and I-3.2 from the *SWMMWW* below identify the Minimum Requirements based on the scope of development.

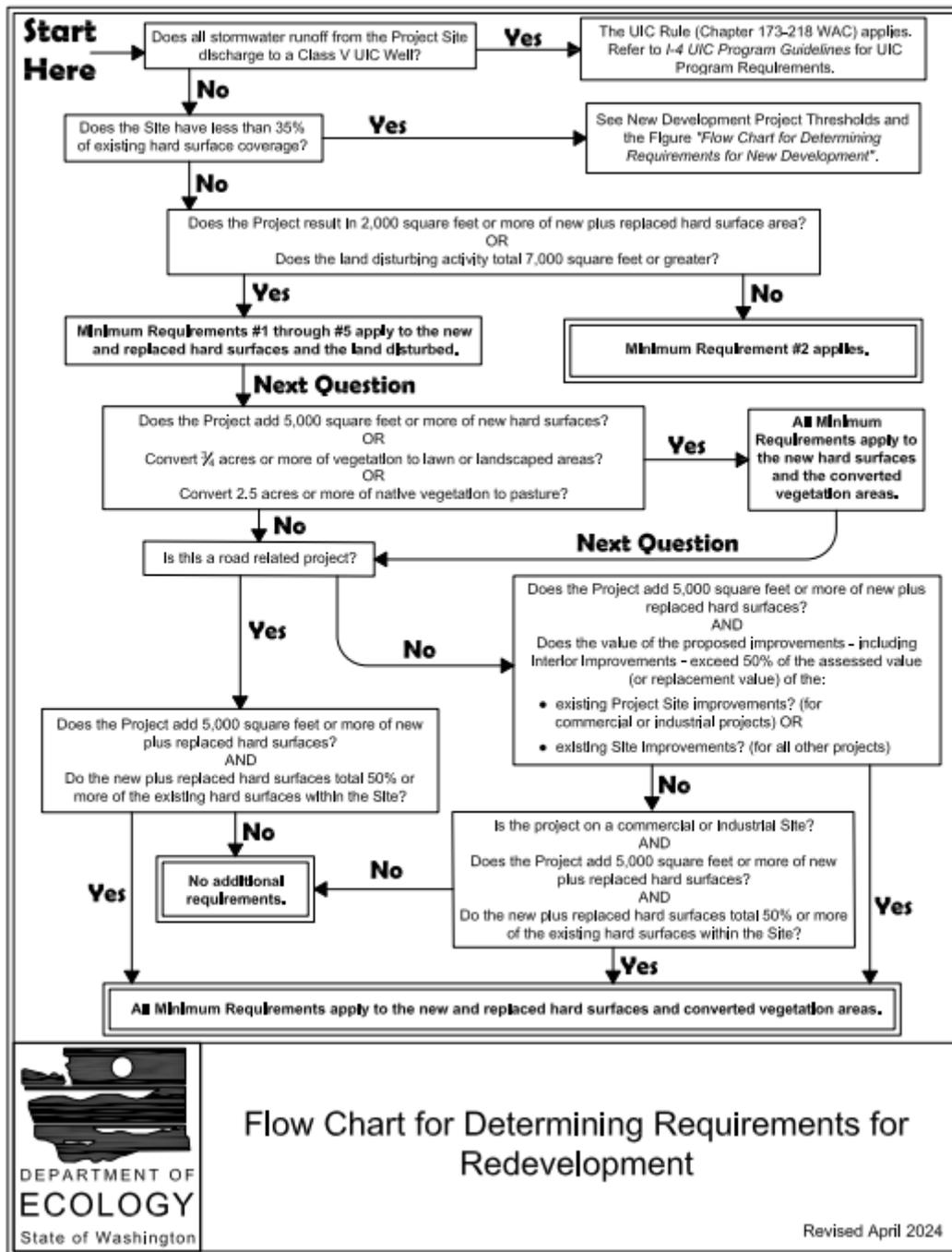
Figure I-3.1: Flow Chart for Determining Requirements for New Development



Flow Chart for Determining Requirements for New Development

Revised September 2022

Figure I-3.2: Flow Chart for Determining Requirements for Redevelopment



The Minimum Requirement thresholds are also summarized below:

New Development and Redevelopment: Projects creating 2,000 square feet or more of impervious surface, or disturbing 7,000 square feet or more of land, must comply with the Minimum Requirements 1-5 of the *SWMMWW*, at a minimum. Minimum Requirement 5 is On-Site Stormwater Management and requires mitigation of stormwater flows resulting from a development's change in historic land cover and stormwater runoff rates.

Minimum Requirements 6-9 are required when the new and replaced impervious surfaces exceed 5,000 square feet which add additional requirements to the development to mitigate for stormwater pollution and greater stormwater runoff quantities.

Future development impacts proposed by the CP update will be assessed based on the *2024 SWMMWW*.

SECTION 3: PROPOSED LAND USE SCENARIOS

The two proposed land use scenarios being considered for the CP update include both vacant and developed lands and the potential density impacts of Middle Housing Methodology and Accessory Dwelling Units (ADUs) throughout the City.

Any new development (vacant land) or redevelopment (developed lands) must meet the requirements of the *2024 SWMMWW* and will be obligated to employ stormwater management techniques consistent with the *2024 SWMMWW* based on the impervious surface impacts proposed by each individual development.

3.1 Vacant Land

New developments proposing ground disturbing impacts greater than the thresholds identified in the *2024 SWMMWW* on vacant land will require stormwater to be managed onsite. The developer will have to manage new impervious areas created with stormwater management techniques and technology supported by the SWMMWW. As density increases, as being proposed with the CP update, so do impervious areas and higher potential for stormwater runoff. However, under the *2024 SWMMWW* the additional stormwater runoff created by new impervious surfaces must be mitigated by the mandated Stormwater Best Management Practices (BMPs) constructed by developers.

The changes proposed by the CP update under both scenarios will have no impact on the existing stormwater system. All stormwater impacts created by new development will require mitigation based on the scope of the development. No impacts are anticipated to the current SMP, standards, or codes as a result of the land use scenarios being considered as part of the CP update as a result.

3.2 Developed Land

Redevelopment of existing developed areas where the scope of the projects are under 2,000 square feet of new or replaced impervious surfaces do not require management of stormwater runoff to be addressed onsite. An increase in allowable density – as proposed with the CP update scenarios – within developed areas could lead to a higher rate of unmanaged stormwater runoff. The two land use scenarios for developed land will have the same consequences. If ADU or Middle Housing redevelopment is proposed and the individual scope of the projects are below 2,000 square feet of impervious areas, then current development codes and standards have no mechanism to oblige the property owner or developer to manage stormwater onsite.

Over time, as redevelopment occurs, the result of this impact will likely be the over utilization of existing stormwater facilities. This may cause increased overflows and flooding of individual systems within both the public and privately owned infrastructure that was not analyzed in detail with the current SMP. If the existing development standards and codes are not changed to mitigate this issue, the addition of impervious areas will potentially push the limited existing stormwater infrastructure overcapacity.

SECTION 4: RECOMENDATIONS

As discussed above, changes to the density for undeveloped land will have insignificant impacts to the existing stormwater system and SMP. Regardless of the land use scenario selected, stormwater mitigation will continue to be required of developments at a project level.

An increase in density and allowance of ADU construction on developed land has the potential to significantly impact existing stormwater infrastructure. The total stormwater runoff created from redevelopment has the potential to cause failure to existing stormwater systems without proper planning or investment.

Options to address the potential stormwater impact of increased housing density within the developed areas are discussed below.

Option 1: Washougal Engineering Standard's Changes

This option would amend the *Washougal Engineering Standards*, and the City Municipal Code as required, to modify the project thresholds associated with providing onsite stormwater management for redevelopment projects. The current threshold for requiring stormwater management is based on 2,000 square feet of new or replaced impervious surfaces. This threshold could be reduced to 500 square feet, which would require ADU construction to mitigate stormwater runoff.

No capital expenditures are anticipated with this option as the individual developers would fund the additional stormwater management techniques at a project level with their developments. However, this approach is not widely used in neighboring communities and may not be openly accepted by the public and development community. The City may experience political challenges and resistance from the development community as part of this change.

Option 2: Stormwater Management Plan Update

This option would update the existing SMP to include additional evaluation and analysis of all existing stormwater infrastructure capacity and anticipated additional stormwater flows resulting from the CP updates land use changes. The anticipated result of this analysis would identify additional capital infrastructure improvement needs over the planning period and identify funding mechanisms.

Large capital investments may be required over time to fund previously undefined stormwater improvements as development occurs. Capital costs will require additional funding to be allocated to these projects by the City through an increase in stormwater impact fees, general fund contributions or other funding options.

Option 3: Building Permit Requirement Changes for Small Projects

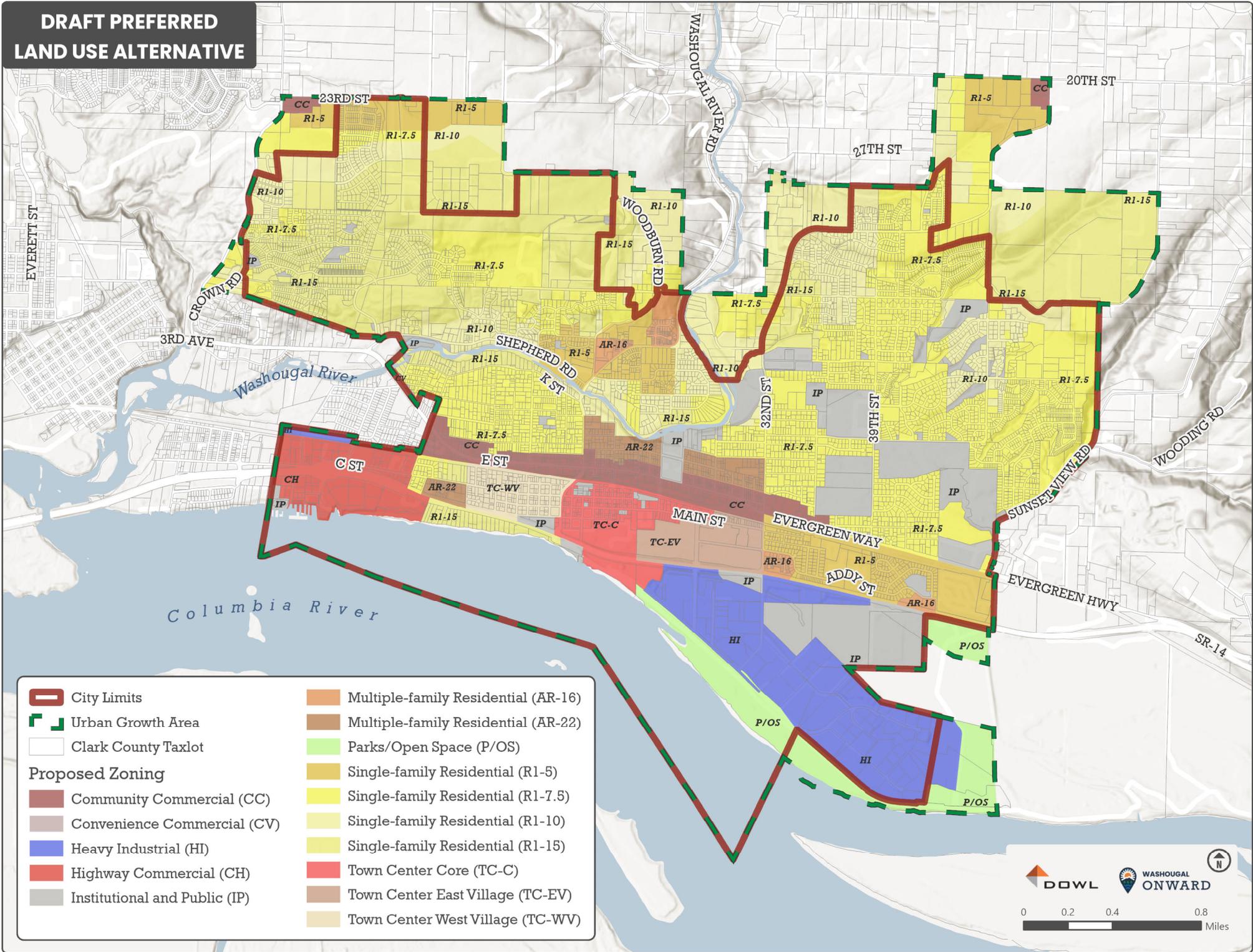
This option would modify the Building Permit process as it relates to stormwater requirements. The City's *Stormwater Requirements Determination and Declaration* form for development currently identifies that a stormwater permit is not required for developments proposing new hard surfaces less than 2,000 square feet. This option would revise the Building Permit process and require that all new roof surfaces created between 500 square feet and 2,000 square feet include proposed improvements to manage stormwater. It is anticipated that the revisions would include a requirement that all new or replaced roof impervious surfaces be managed by an onsite downspout infiltration system capable of providing mitigation for the increased stormwater runoff. A specific size facility, or range of sizes, would be required as part of the building permit and is expected to offset the impacts to the City's stormwater system.

SECTION 5: CONCLUSION

The Preferred Land Use Alternative selected by the City is included as Attachment A. As discussed above, development of undeveloped land is not anticipated to create adverse effects to the City's stormwater systems as the changes to stormwater runoff associated with each development will be mitigated as part of the development. The increased density allowed with the Preferred Alternative within developed portions of the City does have the potential to create adverse effects, however. City Staff have concluded that Options 3, discussed, above is the City's preferred approach to managing and mitigating potential effects.

To implement the strategy described in Option 3, City Public Works and Engineering staff will need to collaborate with the City's Building Department to revise building permit requirements. The revisions will need to require small infill and redevelopment that increase impervious surfaces by less than 2,000 square feet of roof hard surfaces to construct small roof downspout infiltration systems as part of construction. A criteria for sizing these infiltration systems must also be developed and tied to building permit requirements.

DRAFT PREFERRED LAND USE ALTERNATIVE



- City Limits
 - Urban Growth Area
 - Clark County Taxlot
- Proposed Zoning**
- Community Commercial (CC)
 - Convenience Commercial (CV)
 - Heavy Industrial (HI)
 - Highway Commercial (CH)
 - Institutional and Public (IP)
 - Multiple-family Residential (AR-16)
 - Multiple-family Residential (AR-22)
 - Single-family Residential (R1-5)
 - Single-family Residential (R1-7.5)
 - Single-family Residential (R1-10)
 - Single-family Residential (R1-15)
 - Town Center Core (TC-C)
 - Town Center East Village (TC-EV)
 - Town Center West Village (TC-WV)
 - Parks/Open Space (P/OS)

0 0.2 0.4 0.8 Miles