Memorandum

To: Sean Mulderig, City of Washougal

From: Trista Kobluskie, Cara Donovan, Frank Sottosanto, PE, Otak, Inc.

Copies:

Date: August 26, 2022

Subject: Receiving Water Prioritization – SMAP

Project No.: 20155

1. Introduction

The Receiving Water Prioritization has been prepared pursuant to the City of Washougal's Phase II National Pollutant Discharge Elimination System (NPDES) municipal stormwater permit and a water quality grant from the Washington Department of Ecology. The prioritization generally follows the steps described in the Stormwater Management Action Planning Guidance published by the Washington Department of Ecology in 2019 (2019 SMAP Guidance). The purpose of the Receiving Water Prioritization is to determine which receiving water will receive the most benefit from implementation of stormwater facility retrofits, targeted stormwater management activities, and/or targeted policies. The outcome of this phase is a selected basin and catchment for which a stormwater management action plan (SMAP) will be developed. The results of the prioritization are summarized in this memorandum.

1.1. Summary of Receiving Water Conditions Assessment

The receiving water and relative conditions assessments were previously completed and are available for review on the City of Washougal's website. Gibbons Creek, Washougal River, and Lacamas Creek Basin were assessed. Gibbons Creek Basin and Washougal River Basin scored higher in the stormwater management influence (SMI) and relative conditions assessments than Lacamas Creek. As a result, Gibbons Creek Basin and Washougal River Basin were selected to be considered for the receiving water prioritization step.

2. Prioritization

Prioritization began with prioritizing a receiving water in the City of Washougal. The community was engaged in the receiving water prioritization decision. Following selection of a receiving water, a catchment within that basin was prioritized.

2.1. Receiving Water Prioritization

The receiving water basin prioritization criteria included numerous factors divided into three categories: receiving water condition information, stormwater management influence (SMI), and community factors. These factors and other receiving water conditions were described extensively in the *Receiving Water Conditions Assessment – SMAP* technical memorandum dated March 30, 2022, by Otak, which is

available for review on the City's website. Appendix A outlines the reasoning, score rationale, data sources, and notes for each of the considerations outlined in Table 1 below.

Table 1 Receiving Water Basin Prioritization Criteria

Consideration	Basin Scoring*	
	Gibbons Creek Basin	Washougal River Basin
Receiving Water Conditions		
Fish passage barriers	High (0 barriers)	High (0 barriers)
Ability to Influence (SMI)		
Hydrologic Impact	High (high score)	Low (low score)
Pollutant Loading Impact	High (high score)	Medium (medium score)
Watershed Management Strategy	High (Restoration)	Medium (Protection)
Community Factors		
Stakeholder/Community Feedback**	High (9 community points)	Low (4 community points)
Overburdened Communities	Medium (5.7)	Medium (5.4)

** Higher scores indicate the receiving water may benefit more from implementation of a SMAP.*
*** Stakeholder and community feedback is described is Section 2.2.*

Consideration of the above factors and scores for Gibbons Creek Basin and Washougal River Basin resulted in the section of the Gibbons Creek as the priority receiving water.

2.2. Community Engagement

The SMAP guidance calls for actively seeking input from natural resource agencies and tribes and for involving interested parties and the public early in the prioritization process. The City invited the general public and interested parties to participate in prioritizing a basin for two weeks in June and July 2022. A storymap website explained the SMAP process, presented the receiving waters assessment findings (Figure 1), and offered a survey.

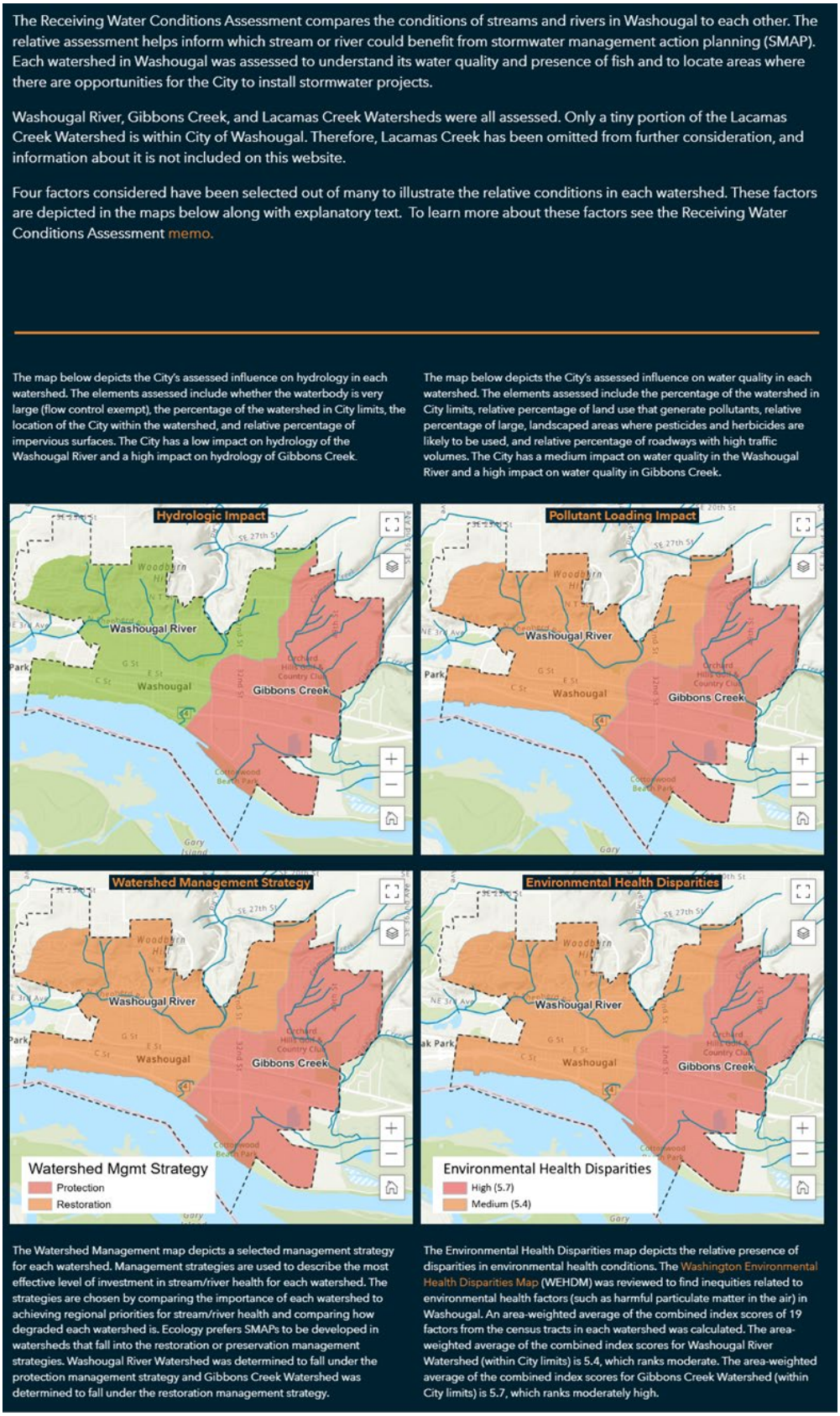

Figure 1: Receiving Water Assessment Findings in the Community Engagement Storymap

The survey included two questions. The first asked respondents to select a priority basin (Gibbons Creek or Washougal River). The second asked respondents to plot a point within the City of Washougal where SMAP should address water quality, stream/river conditions, or uncontrolled stormwater runoff. Once a point was selected the respondent could choose to answer the following questions:

- Why is this location important to you?
- Why is this location an area of concern?
- How would you like the City to address this issue?
- Do you have any additional comments?

To advertise the storymap and survey, the City contacted the community in various ways. The City identified and emailed interested parties. Interested parties included adjacent jurisdictions, the Port of Camas-Washougal, the Cowlitz Indian Tribe, and environmental groups such as the Lower Columbia Estuary Partnership. The storymap was announced on the City's website, the City's Facebook page, and on a flyer posted at public, high-traffic public places in Washougal.

Sixteen responses were collected. Eleven participants selected Gibbons Creek Basin and five selected the Washougal River Basin for prioritization (Table 2).

Table 2 Community Survey Responses

Community Survey Responses			
Comment ID	**Basin**	**Catchment**	**Comment***
1	Gibbons	Campen Creek	There are septic systems in this area. There are no curbs which allows direct runoff into Campen Creek.
2	Gibbons	Campen Creek	Golf courses provide almost no shade, little spawning habitat, and contribute significantly to chemical pollution. All the work at the Steigerwald Wildlife Refuge appears to be paying off. Let's keep enhancing what's already been started.
3	Gibbons	Mable Kerr	Mable Kerr Park is highly degraded and there is little stormwater treatment.
4	Gibbons	Columbia	There is continued industrial development in this area.
5	Gibbons	Columbia	There needs to be improved stream quality, improved riparian buffers, and removal of fish passage barriers to proactively improve stream health in the industrial areas.
6**	Gibbons	Campen Creek	Urbanization continues in Western Gibbons Creek.
7	Gibbons	Columbia River	Runoff from the private gravel mine and gravel washing facility [outside City limits] impacts the water quality flowing in Steigerwald Wildlife Refuge. Potential for holding ponds to fail, releasing contaminated water into Gibbons Creek.

Community Survey Responses			
Comment ID	**Basin**	**Catchment**	**Comment***
8	Washougal River	N/A***	[No comment]
9	Washougal River	N/A	All of the streets except K street have no sidewalks or storm drains for runoff.
10	Gibbons	Campen Creek	[No comment]
11	Gibbons	Mable Kerr	I have seen lots of litter, pollutants, and invasive plant species coming into the Steigerwald Wildlife Refuge during floods. I suspect they are coming from upstream development on Campen Creek
12	Washougal	N/A	There is runoff from a lot of cars and trucks driving on the roadway and parked on the side streets Where the Washougal River runs into Camas.
13	Gibbons	Campen Creek	The high school is the largest area of contiguous impervious surface in the Campen Creek watershed.

** Comments are responses to the question "Why is this location an area of concern?" and have been edited for clarity and privacy.*
*** Point is shown in the wrong basin on the map, as placed by the respondent. Based on the comment, we assume Gibbons Creek is the point of interest.*
**** Catchments were not delineated for Washougal River Basin.*

Fourteen responses to the second question can be seen in Figure 2, which shows that nine of the 13 points of interest or concern are in the Gibbons Creek Basin. Respondents chose their selected locations for a variety of reasons including degraded conditions, a lack of infrastructure, synergy with recent improvements to Steigerwald Lake National Wildlife Refuge, and concerns about pollutants from large private landowners, among other reasons.

2.3. Catchment Selection

The purpose of the catchment selection exercise was to determine which area of the Gibbons Creek Basin would receive the most benefit from a stormwater management action plan by the City.

2.3.1. Catchment Delineation

The consulting team delineated catchments in Gibbons Creek based on the SMAP Guidance, which states catchments should be between 400-600 acres or a scale that is appropriate for the jurisdiction. City of Washougal is a smaller southwest Washington city, and the appropriate catchment size tended to be smaller. Catchments range from 282 to 661 acres and are based on drainage areas to stream channels, adjusted for stormwater infrastructure, and to some extent, uniformity in land uses and storm system type. Catchments are presented on Figure 3.

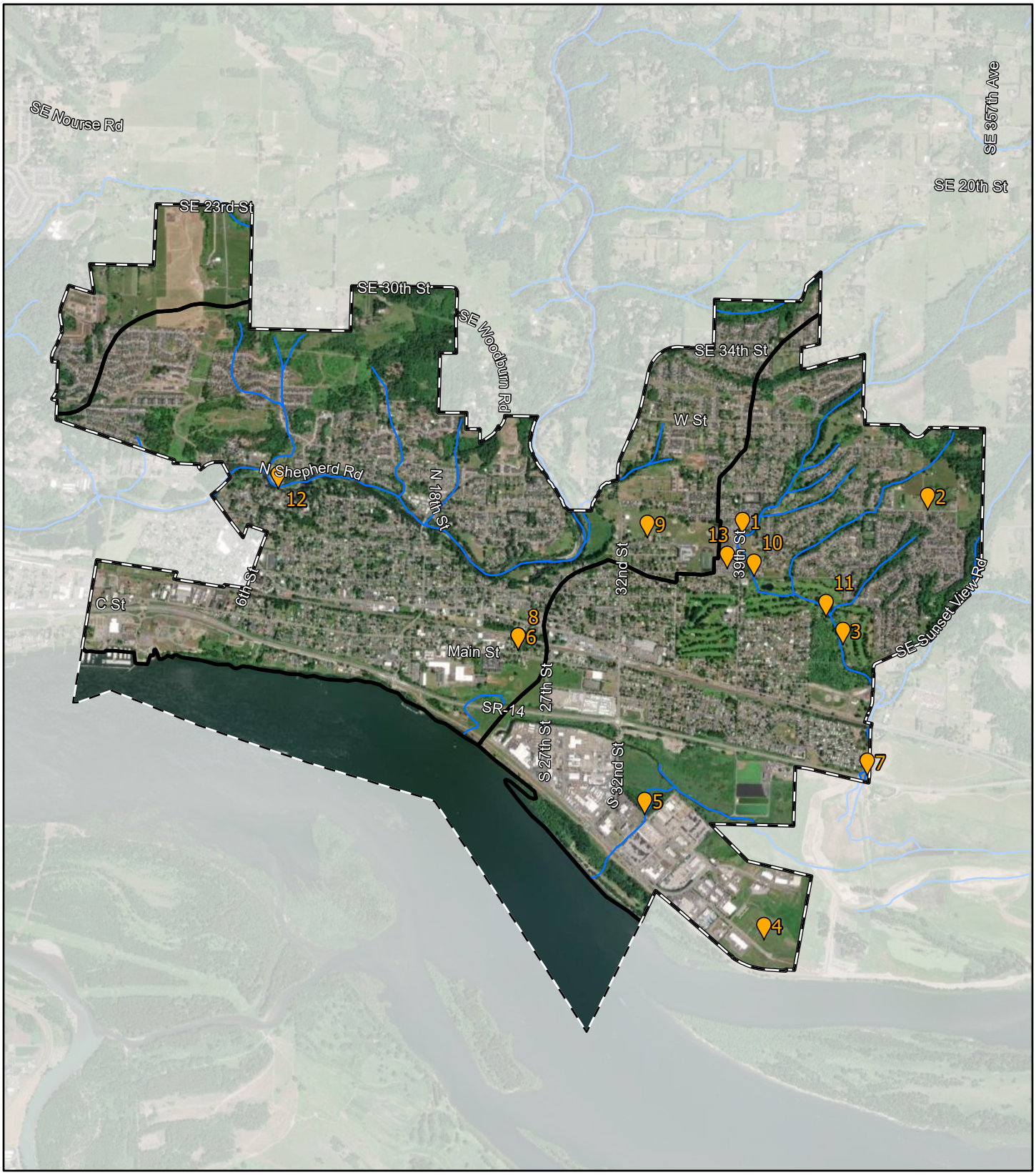

FIGURE 2
SURVEY RESPONSE LOCATIONS
WASHOUGAL SMAP

Basin Prioritization Survey Points

Washougal City Limits

Washougal Basins

Streams

0 1,000 2,000 4,000 Feet

Date: 8/24/2022
Disclaimer: This data is not to survey accuracy and is meant for planning purposes only.

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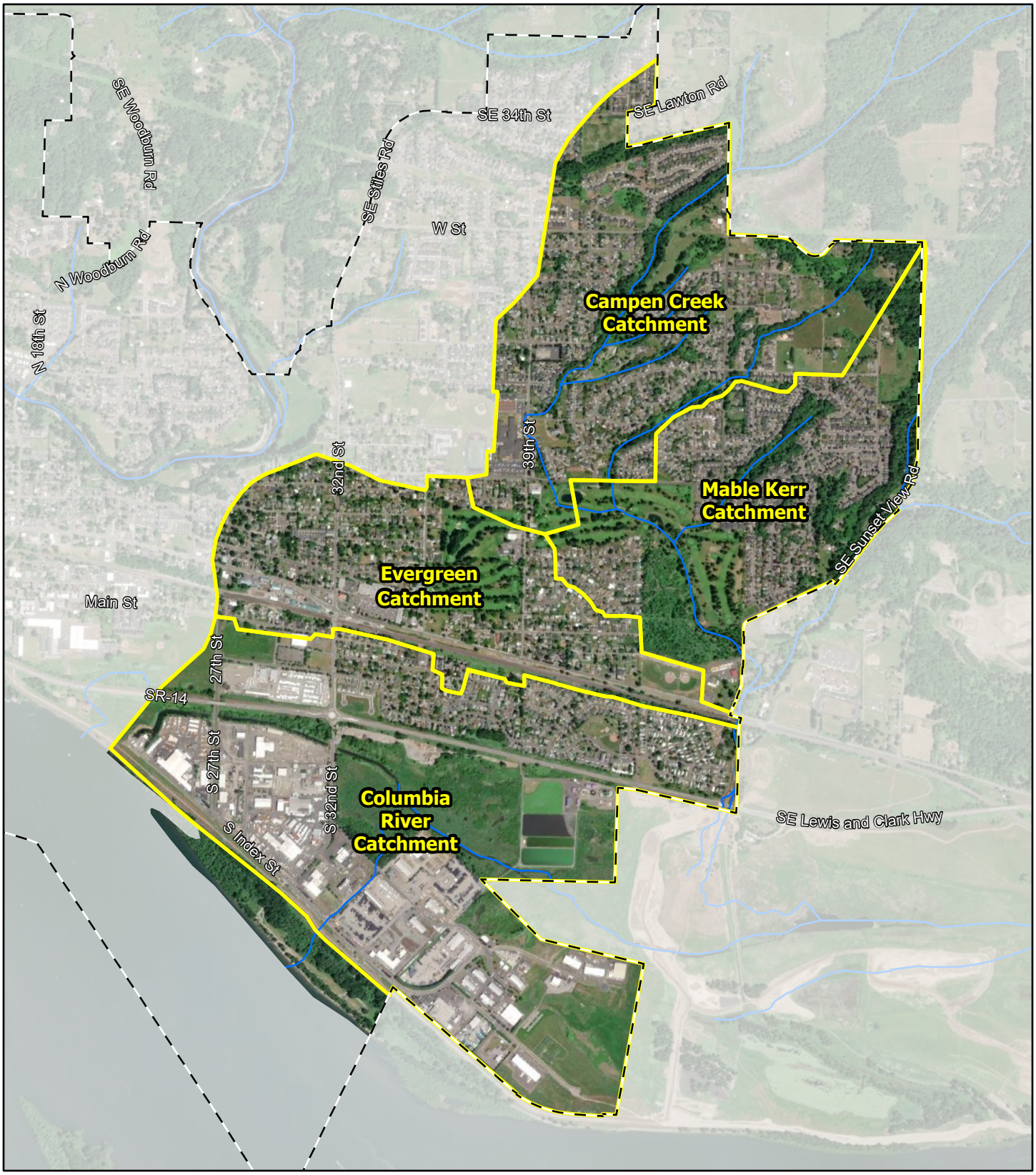

FIGURE 3

GIBBONS CREEK BASIN CATCHMENTS

WASHOUGAL SMAP

Washougal City Limits
Streams
Gibbons Creek Basin Catchments

0 500 1,000 2,000
Feet

Date: 8/24/2022
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2.3.2. Catchment Selection

The catchment prioritization criteria included numerous factors divided into four categories: receiving water condition information, stormwater management influence (SMI), community factors, and collaboration factors. Many of these factors and other receiving water conditions were described extensively in the *Receiving Water Conditions Assessment – SMAP* technical memorandum dated March 30, 2022, by Otak, which is available for review on the City of Washougal's website. Attachment A outlines the reasoning, score rationale, data sources, and notes for each of the scoring factors. Factors considered in catchment prioritization are also depicted on the Washougal SMAP Catchment Prioritization Web Map (Attachment B). Figure 4 and Figure 5, below Table 3, depict the Washington Department of Archaeology and Historic Preservation's archaeology predictive model (available through their WISAARD portal) and environmental health disparities within each Gibbon Creek catchment, respectively.

The City and consultant team conducted a site visit in Gibbons Creek Basin on July 27, 2022. The intent was to identify retrofit opportunities and stormwater management needs in Gibbons Creek Basin to inform catchment selection. Prior to the site visit the team evaluated many of the same factors as had been considered in prioritizing a receiving water, such as presence of pollution-generating surfaces, presence of City-owned properties, and presence of public stormwater facilities. The site visit included a drive through the Evergreen Catchment and stops within five areas in the Campen Creek and Mable Kerr catchments (Figure 6). During the visit, the team evaluated availability and ease of building in the right of way, condition of selected public stormwater facilities, and benefit of retrofitting selected public stormwater facilities. The site visit indicated the greatest number of opportunities for water quality projects are in the Campen Creek catchment.

Consideration of the prioritization factors and relative scores for the Gibbons Creek Basins catchments resulted in the section of the Campen Creek Catchment as the priority catchment as outlined in Table 3 below. Narrative of selected findings is presented in sections 2.3.2.1 through 2.3.2.4.

Table 3 Catchment Scores and Prioritization

Catchment Scoring				
Consideration	**Campen Creek**	**Mable Kerr**	**Evergreen**	**Columbia River**
Receiving Water Conditions				
Ratio of existing water quality facilities to pollution-generating land uses and large pollution-generating pervious surfaces*	Low (0.27)	High (0.09)	High (0.09)	High (0.05)
Ratio of existing flow control facilities to impervious surfaces*	Medium (0.13)	Medium (0.13)	High (0.05)	High (0.04)
Ability to Influence (SMI)				
Availability of publicly owned land (acres)	High (88.28)	Medium (31.15)	Low (8.37)	High (71.61)
Availability of right-of-way (miles / acre of catchment)	Neutral (0.02)	Neutral (0.02)	Neutral (0.02)	Neutral (0.02)
Community Factors				

Catchment Scoring				
Consideration	**Campen Creek**	**Mable Kerr**	**Evergreen**	**Columbia River**
Stakeholder Feedback (Figure 2)	High (4 community points)	Medium (2 community points)	Low (0 community points)	Medium (3 community points)
Washington Information System for Architectural and Archaeological Records Data (WISAARD) Predictive Model (Figure 4)	Medium (Very high risk in approximately ½ of the catchment)	Medium (Very high risk in approximately ¾ of the catchment)	High (Very high risk throughout catchment)	High (Very high risk throughout catchment)
Overburdened Communities** (Figure 5)	Low (3.18)	Low (3.08)	Low (3.90)	High (9.00)
Collaboration Factors				
Regional and local rehabilitation and restoration efforts	Medium See narrative below	Medium See narrative below	None identified	None Identified
City's Capital Improvement Projects	Hartwood Bridge Replacement	N/A	32nd Street Underpass; 39th Street/ Evergreen Way Realignment; J Street Water Main Installation	32nd Street Underpass; Biosolids Handling Facility
Final Selection				
Site Visit / Observations / Engineering Judgement	High See narrative below	Medium See narrative below	Medium See narrative below	Low See narrative below
Selection Status	Catchment Selected for SMAP	Not Selected for SMAP – Second Choice	Not Selected for SMAP – Third Choice	Not Selected for SMAP – Fourth Choice

**Some private stormwater facilities may not be documented in the City's GIS, particularly in the Columbia River Catchment*
***Intended to be used as a tiebreaker, if needed*

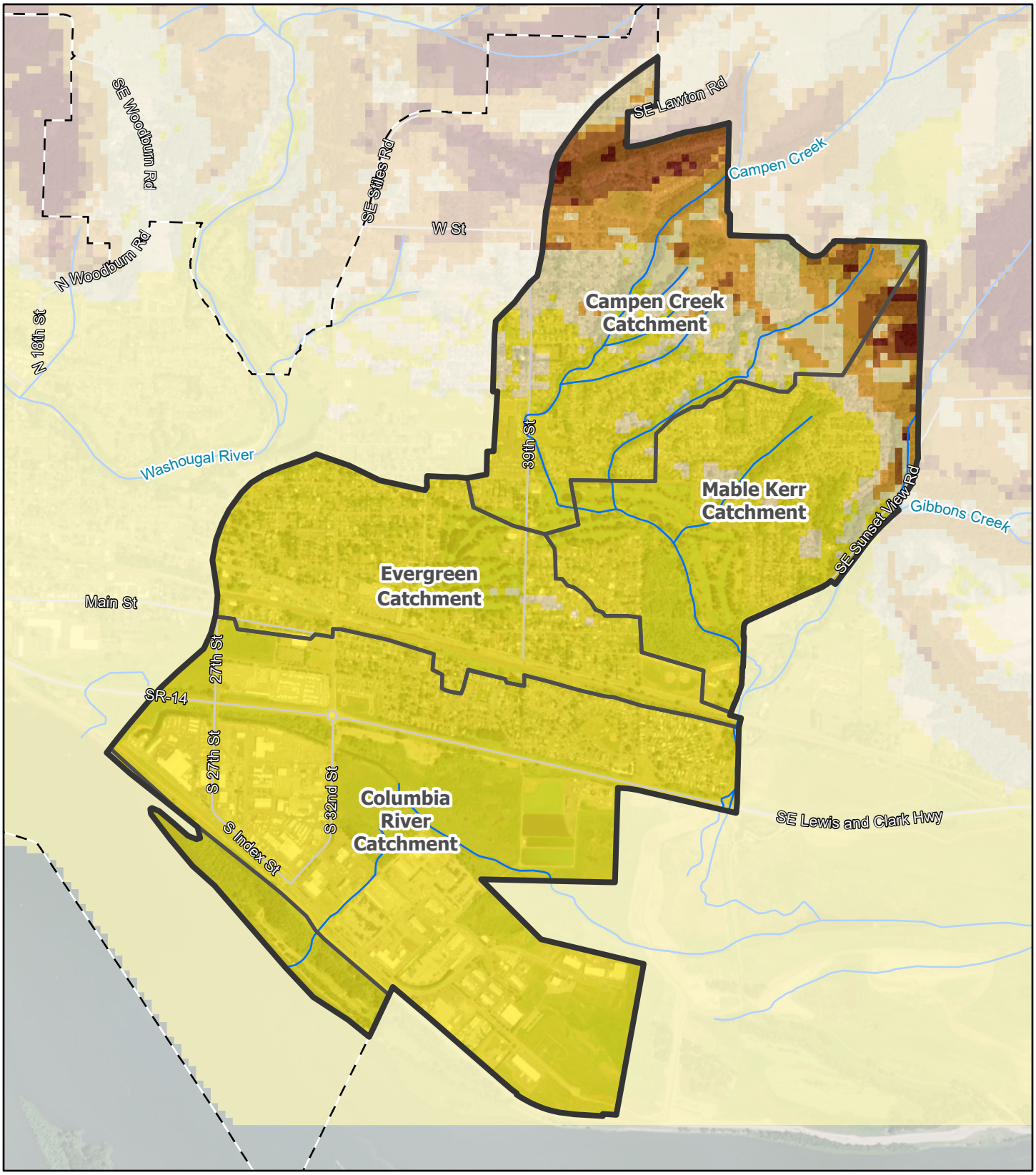

FIGURE 4

WISAARD PREDICTIVE MODEL RESULTS

WASHOUGAL SMAP

Washougal City Limits
Gibbons Basin
Gibbons Basin Catchments

Environmental Factors with Archaeological Resources Results

- 1 - Survey Contingent Upon Project Parameters: Low Risk (Color: Brick Red)
- 2 - Survey Contingent Upon Project Parameters: Moderately Low Risk (Color: Burnt Orange)
- 3 - Survey Recommended: Moderate Risk (Color: Orange)
- 4 - Survey Highly Advised: High Risk (Color: Pale Yellow)
- 5 - Survey Highly Advised: Very High Risk (Color: Brightest Yellow/Canary Yellow)

0 500 1,000 2,000
Feet

Date: 8/24/2022
Disclaimer: This data is not to survey accuracy and is meant for planning purposes only.

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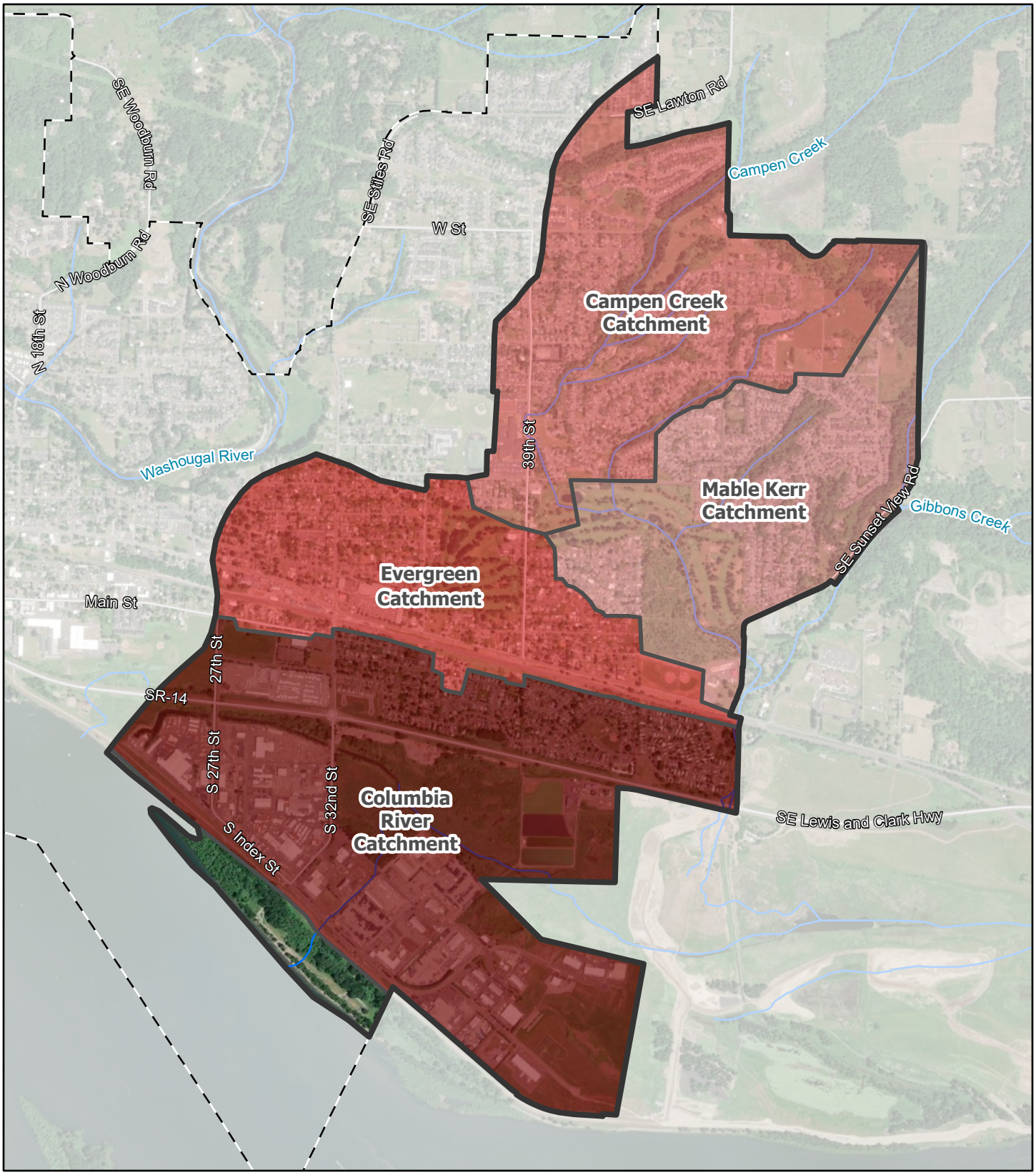

FIGURE 5
GIBBONS CREEK CATCHMENTS ENVIRONMENTAL HEALTH DISPARITIES
WASHOUGAL SMAP

Washougal City Limits
Gibbons Basin Catchments
EHD - Area Weighted Average
3.1
3.2
3.9
8.9
Streams

0 500 1,000 2,000
Feet

Date: 8/24/2022
Disclaimer: This data is not to survey accuracy and is meant for planning purposes only.

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Site Visit
Poorly functioning older water quality and flow control facilities on big city property. Property is a former wetland and current blackberry briar.

Site Visit
Neighborhood draining to older flow control and water quality facility on public property. Facilities in poor condition.

Culvert has high flow.

Treat right-of-way, improve flow control

Site Visit
Neighborhood with little treatment and an older flow control facility. Prime area for right-of-way retrofit because old county roads are wide and have no treatment or flow control.

Sink holes have formed here. Address drainage.

Treat right-of-way, improve flow control

Site Visit
Possible high risk
City-owned drywell with no treatment

Site Visit
Neighborhood draining to older public flow control facility. Facility has a lot of flow, and infiltrates amazingly well. This is not a problem facility.

Treat large pollution generating pervious surfaces and right-of-way, improve flow control

Riverview Park
Summer Slope Open Space
Hartwood Park
Eldridge Park
Campen Creek Park-Rolling Meadows Addition
Campen Creek Catchment
Schmid Family Park
Washougal River
Hathaway Park
Campen Creek
Mable Kerr Park
Mable Kerr Catchment
Evergreen Catchment
George Schmid Park
Hamlik Park
Columbia River Catchment
Captain William Clark Park
Gibbons Creek
1
2
3
4
5
7
10
13

FIGURE 6
AREAS OF OPPORTUNITY & NEED
GIS ANALYSIS FOR FIELD STUDY
GIBBONS CREEK BASIN
WASHOUGAL SMAP

Gibbons Basin
Pollution Generating Overlay
Taxlots
City Owned Properties
Roads - Washougal Jurisdiction
Streams
High ADT Roads (> 6,000 / day)
Basin Prioritization Survey Points
Gibbons Creek Catchments

Stormwater Facilities
New Water Quality
Newer Flow Control
Older Flow Control
Older Water Quality

Drywells
Risk Level, Maintained By
High, COW
Not High, COW
Not High, PVT

Outlets
Subtype
D Discharge Point
Outfall

0 250 500 1,000 Feet

Date: 8/24/2022
Disclaimer: This data is not to survey accuracy and is meant for planning purposes only.

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2.3.2.1. Campen Catchment Narrative and Site Visit Findings

The Campen Creek catchment is 407 acres and consists primarily of residential development. The City is located in the downstream half of the catchment, which extends north into unincorporated Clark County. The Campen Creek mainstem and the uppermost tributary pass through it. Hartwood Park, Eldridge Park, the Summer Slope subdivision open space, and portions of the Orchard Hills Golf Club are significant open spaces in the catchment. The Washougal High School is located at the western edge along 39th St. (Note: part of the high school property is located in the Washougal River Basin.) The northeastern corner of the catchment is currently agricultural and forested, and this area is expected to develop with residences.

Many residential subdivisions were developed under Clark County regulations in the 1990s and 2000s, which means most of them have older flow control and older water quality facilities, and many of them have wider county road widths. Some of these neighborhoods have steeper roadways, providing a challenge for stormwater facility retrofits in the rights-of-way. A small number of subdivisions are infill, and these have stormwater facilities built to the standards implemented in 2009. One large detention-only facility on Q Street west of 39th provides an opportunity to retrofit it for water quality for significant acres, including a higher traffic roadway, 39th St. One public underground injection control well has been identified as a possible risk to groundwater in this catchment. There is an opportunity to provide vegetated water quality treatment in this location.

City staff have noted that Campen Creek and its tributaries through this catchment are flashy. The City has documented a chronic erosion problem in the stream channel where Campen Creek crosses south under M Street, just east of 39th. The chronic erosion problem has not been studied in detail but could be caused both by historic realignment of the channel to a 90-degree bend and by increased flows and velocities resulting from upstream development. Above this erosion location, several flow control facilities were built to older standards and may provide opportunity to retrofit existing ponds to help address the erosion problem.

The City and Lower Columbia Estuary Partnership are constructing a water quality retrofit at the Washougal High School. The City is also pursuing a temporary repair of the erosion issue at 39th Street.

As Campen Creek is a tributary to Gibbons Creek, improving water quality in the catchment would also benefit Gibbons Creek itself. Campen Creek was selected for SMAP because of the ease of coordination for placing facilities in the ROW is underserved residential areas, the number of existing older publicly-owned flow control facilities that are eligible for retrofit, the presence of a known erosion problem in the tributary at 39th Street, and the focus on this catchment demonstrated through public feedback and the efforts the Lower Columbia Estuary Partnership.

2.3.2.2. Mable Kerr Catchment Narrative and Site Visit Findings

The Mable Kerr Catchment is 318 acres and consists primarily of residential development. The lowest downstream tributary to Campen Creek passes through this catchment and is the primary stream channel in it. Gibbons Creek mainstem flows for a short stretch at the eastern edge of the catchment along SE Sunset View Road. There are significant open spaces including: Mable Kerr Park, a Washougal School District open space between the George Schmidt Park ballfields and Mable Kerr Park, the majority of the Orchard Hills Golf Club, and the Sunset Ridge open space along the tributary stream channel. Most open spaces are located in the lower reach of the catchment. The northeastern corner is currently agricultural and forested, and this area is expected to develop with residences.

Residential subdivisions tend to have been developed under Clark County regulations in the 1990s and 2000s, which means most of them have older flow control and older water quality facilities, and many of them have wider county road widths. Some of these neighborhoods have steeper roadways, providing a challenge for stormwater facility retrofits in the rights-of-way. A small number of subdivisions are infill, and these have stormwater facilities built to the standards implemented in 2009. Several older water quality and flow control facilities near the creek channel serve entire subdivisions and could provide opportunities for retrofit to more current standards. A large infiltration facility near Sunset View Road performs well and serves a large drainage basin.

The large private golf course is primarily located in this catchment. The City does not control this property but could consider reaching out to property owners to develop a voluntary land management strategy that protects water quality in the stream. Because the golf course is within three catchments, a program like this could benefit multiple catchments.

The Lower Columbia Estuary Partnership is planning to restore vegetation and the stream channel on both sides of the stream through Mable Kerr Park, including parts of the golf course. The degraded habitat and stream conditions along Campen Creek through the golf course and Mable Kerr Park are a focus of the community, as evidenced by public feedback and the Lower Columbia Estuary Partnership's project. As Campen Creek is a tributary to Gibbons Creek, improving water quality in the catchment would also benefit Gibbons Creek itself.

2.3.2.3. Evergreen Catchment

The Evergreen Catchment is 282 acres and consists of dense residential and commercial development. Open spaces include part of the Orchard Hills Golf Club and George Schmidt Park. The BNSF Railroad and Evergreen Way traverse east-west through the catchment.

The area is served largely by public and private underground injection control wells (UICs) that manage stormwater, some of which have been identified as a possible risk to groundwater. Older water quality facilities are clustered around the commercial center at Evergreen Way and 32nd Street, which includes a grocery store, pharmacy, restaurants, and other businesses. Although most of the area is served by UICs, surface flow likely travels along Evergreen Way and the railroad and may make its way to the Gibbons Creek mainstem just northwest of Steigerwald National Wildlife Reserve (outside of City limits). Current surface flow contributions to Gibbons are not well documented due to the recent rerouting of Gibbons Creek and installation of a cross levee.

The large private golf course is partly located in this catchment. The City does not control this property but could consider reaching out to property owners to develop a voluntary land management strategy that protects water quality in the stream. Because the golf course is within three catchments, a program like this could benefit multiple catchments.

Improving water quality in this catchment is likely to have a greater impact on groundwater but could also benefit Gibbons Creek.

2.3.2.4. Columbia River Catchment

The Columbia River Catchment is 661 acres and consists of residential development, large tracts of industrial land including Port of Camas-Washougal, and the City's sewage treatment plant. Open spaces include a large open space which has the remnant Gibbons Creek channel located south of State Route

14 (SR-14), which traverses east-west through the area, Hamllik Park, and Captain William Clark Park along the Columbia River.

The catchment drains east towards the lower mainstem of Gibbons Creek and south to the Columbia River and includes both piped storm sewer, surface water flow, and UICs. Conveyances throughout the catchment often discharge directly to wetlands. Older water quality facilities are located in the northwest and southeast corners, near a commercial center and industrial area respectively. There is a small commercial development at SR-14 and 32nd Street which has two newer water quality facilities and a flow control facility. The rest of the residential portion of the catchment north of SR-14 and Hamllik Park are served by two older flow control facilities near SR-14. Runoff from this area is directed to wetlands along SR-14 which may naturally provide some treatment. There are opportunities to retrofit infrastructure serving this area to more current standards.

The Washington Department of Ecology currently has issued 16 NPDES Industrial Stormwater General Permits to industrial site operators in this catchment. Industrial NPDES permittees must monitor the quality of runoff at their outfalls and take corrective action if pollutants exceed benchmarks. Therefore, the team assesses that stormwater quality may be managed sufficiently on sites at Port of Camas-Washougal and other industrial properties. In addition, there are fewer public roads where the City may place new stormwater facilities in the industrial-zoned area along the Columbia River. The team considered and discarded the possibility of water quality retrofits at the City's Treatment Plant due to space limitations on the facility.

Improving water quality in this catchment could impact groundwater, Gibbons Creek, and the Columbia River.

The team notes that the Columbia River catchment has the highest environmental health disparities score (Table 3), which was intended to be used as a tiebreaker in prioritizing a catchment. The Columbia River catchment was not a contender for SMAP selection due to limited number of surface water discharges to Gibbons Creek, the predominance of industrial lands with existing NPDES permits, presence of significant wetlands that may naturally provide treatment, and right-of-way considerations. Therefore, the team did not employ the tiebreaker.

3. Conclusion

The receiving water basin prioritization criteria indicate that in each of the three categories Gibbons Creek Basin would receive the most benefit from a stormwater management action plan by the City. Additionally, 69% of survey respondents prioritized Gibbons Creek Basin. Therefore, Gibbons Creek was selected as the priority receiving water.

The receiving water catchment prioritization indicates that selecting the Campen Creek Catchment can benefit water quality in both Campen Creek and downstream Gibbons Creek. Existing efforts in the Campen Creek Catchment will be enhanced by additional City investment, and an existing erosion problem with threatens 39th Street as well as potentially impacting water quality in Campen Creek could be addressed with the SMAP.

Attachment A

Prioritization Criteria

Washougal Basin and Catchment Prioritization Criteria

5/18/2022

Prioritization					
Consideration	**Scale Applied**	**Reasoning**	**Influence / Score**	**Data Source**	**Notes**
Receving Water Conditions					
Ratio of existing stormwater facilities to pollution-generating land uses and large pollution-generating pervious surfaces	Catchment	Where there is a higher ratio, more treatment is already provided and may mean that there is less need for retrofit.	Smaller ratio = higher score	RWA at basin scale - recalculate at catchment scale	
Fish passage barriers	Basin	BCiTR. Applied at the basin scale because we are looking at the lowest downstream barrier on the waterbody. This factor helps distinguish receiving waters but does not help distinguish catchments.	Downstream barriers (with no removal plan) = lower score	RWA; Local knowledge of barrier removals	
Ability to Influence (SMI)					
Hydrologic Impact	Basin	Heavily impacted basins should have stormwater mitigation. Applied at the basin scale for comparison of basins. Individual factors within this analysis may be considered for catchment prioritization.	High impact = high score, medium = medium, low = low	RWA	Considers impervious surfaces, flow control exemption, portion/location of the basin in the City, density of flow control facilities and drywells per acre of developed surfaces, available area for treatment, and opportunities for retrofit. Assessment follows the SMI categories and weighting agreed upon by City and Consultant Team
Pollutant loading impact	Basin	High pollutant loading should be mitigated. Applied at the basin scale for comparison of basins. Individual factors within this analysis may be considered for catchment prioritization.	High impact = high score, medium = medium	RWA	Considers pollutant-generating land uses, large pollutant generating pervious surfaces, high ADT roads, portion/location of the basin in the City, density of water quality facilities per acre of pollutant-generating land uses, available area for treatment, and opportunities for retrofit Assessment follows the SMI categories and weighting agreed upon by City and Consultant Team
Watershed management strategy	Basin	BCiTR. Applied at the basin scale for comparison of basins. The factors considered in this decision are not applicable at the catchment scale.	Restoration = high score, Protection = medium score, Conservation = low score	RWA	Considers historic fish use, need for fish recovery, urbanization, fish passage barriers, and water quality impairments
Availability of Rights-of-Way and publicly-owned properties	Catchment	City has more influence where it owns the most land or rights-of-way	Catchments with more available City land and ROW will be preferred over catchments with less.	RWA, field visit	
Community Factors					
Stakeholder feedback	Basin and catchment	SMAP Guidance	High support = high score for basin Within a catchment = high number of areas of concern= high score	Stakeholder feedback from Survey 1 & Survey 2	Survey 1 requests stakeholder selection of a priority receiving water (basin). Survey 2 asks stakeholders to place points at specific areas of concern, allowing us to evaluate stakeholder's emphasis of different catchments.
WISAARD Predictive Model	Catchment	Considers where cultural resources are less likely to be disturbed by construction.	Lower risk of cultural resources = higher score	Washington State Department of Archaeology and Historic Preservation	Five risk levels are shown in the predictive model
Overburdened Communities	Basin and catchment	Included in SMAP guidance and BCiTR	Higher inequity = higher score	Washingoton State Environmental Health Disparities and ENSCREEN Demographic Index (shown on RWA map)	Use as a tiebreaker between similar catchments. The inequities measured by these indices may not be alleviated through stormwater management actions
Collaboration Factors					
Regional and local rehabilitation and restoration efforts	Catchment	Included in SMAP guidance and BCiTR	Numerous regional and local rehabilitation and restoration efforts = high score	RWA, WRIA plans, salmon recovery plans, MTCA/Superfund cleanups, critical habitat designations, local efforts	
City's CIPs	Catchment	Included in SMAP guidance and BCiTR	City's future CIP projects that can be combined with retrofits = high score	City's GIS	

Process
First, a receiving water (basin) will be prioritized using factors applied at the basin scale. Second, within the priority basin, a catchment will be prioritized using factors applied at the catchment scale. Results are qualitative.

Attachment B

Web Map

August 2022 - The web map associated with this memorandum is located at this link:
https://otak.maps.arcgis.com/apps/webappviewer/index.html?id=4391213c0d3d4d8fb99f582e62ece0d8