STANDING COMMITTEE MINUTES City of Spokane Public Infrastructure, Environment, and Sustainability March 25, 2019

Committee Members Present

Council Member Breean Beggs, Committee Chair Council Member Mike Fagan, Vice Committee Chair Council Member Kate Burke Council Member Lori Kinnear Council Member Candace Mumm Council Member Karen Stratton Council President Ben Stuckart

Staff Present

Angela Albin-Moore, Hannahlee Allers, Dustin Bender, Brandon Blankenagel, Chris Caferro, Jason Conley, Danielle Cossey, Anna Everano, Marlene Feist, Jacob Fraley, Raylene Gennett, Curtis Harris, Gary Kaesemeyer, Dan Kegley, Brian McClatchey, Katherine Miller, Cadie Olsen, Kyle Overbust, David Paine, Erik Poulsen, Kevin Picanco, Elizabeth, Schoedel, Scott Simmons, Angel Spell, Kyle Twohig, Kandace Watkins

Guests Present

Gonzaga - Dr. Alexander Maxwell, Chelsey Hand, Wesley Davis, Jena Jadallah, Austin Kaesemeyer, Frederick Winter, Luke Schumm, and Dawson Matthews

Council Member Beggs called the meeting to order at 1:15 p.m.

Review and Approval of Minutes

Council Member Beggs asked for a motion to approve the minutes of the February 25, 2019 meeting.

- > Action Taken
- Council Member Fagan moved to approve the minutes of the February 25, 2019 meeting as presented; the motion was seconded by Council Member Stratton.

Discussion Items

- A. Council Requests
 - 1. Consent Items for Discussion
 - 2. Legislative Items
 - 3. Urban Forestry Ordinance

Council Member Kinnear introduced the draft Urban Forestry Ordinance. The ordinance incorporates new language for the findings, purpose and intent of the Urban Forestry Program. She reviewed the goals to increase canopy coverage to 30% by 2030 and create new reforestation programs and to update the plan every five years.

B. Staff Requests

Strategic Plan Session

- A. Priority Strategy 1. Rapidly Accelerating Street Pavement Maintenance Projects
 - Riverside Avenue Public Input Results Brandon Blankenagel discussed the preliminary results for the public input received for the Riverside Avenue concept. Previous public outreach and input was gathered in January and July 2018. In February, input was sought for angled parking and whether there was support for the concept or not through an online survey and mailed ballots. The results provided a balanced approach to parking and important input for the operational nee4ds along the corridor. The next steps will be a council resolution, seeking funding and preparing for designs. Council President Stuckart suggested an administrative report at council to communicate the matrix rather than a resolution.
 - Create prioritization matrix for arterial street maintenance projects Gary Kaesemeyer discussed the items covered in the matrix for pavement ratings such as bus routes, bike lanes, truck routes, pavement condition index (PCI) values, traffic counts, pavement age, and previous bond work. He reviewed the selection matrix mapping showing the values of the planned work.
 - Develop program for paving unimproved residential streets Kyle Twohig discussed the program for paving unimproved residential streets. He reviewed a PowerPoint that compared types of projects from an easy strip paving to a challenging strip paving and a complete street example. Kyle spoke about the selection of streets and the elements that influence cost such as rock, trees, drainage, structures, driveways, utilities, and adjacent facilities. The recommended guidelines for selections include strip pave of 24 feet, minimal sloping including driveway approaches, no structures or utilities that need replacement, minimal tree removals or rock excavation, no drainage issues or private property encroachments.
- B. Priority Strategy 2. Repurposing Public Property to Stimulate Private Investment
 - Putting our renewable energy resources to work in the community:
 - Greenhouse Gas Inventory presentation by Gonzaga
 Nathen Gron, Intern with Environmental Programs, introduced Dr. Alex
 Maxwell with Gonzaga. Dr. Maxwell, school of Engineering and Applied
 Science, and 7 undergraduate students worked on the 2016 Greenhouse Gas

Science, and 7 undergraduate students worked on the 2016 Greenhouse Gas (GHG) Emission report since the fall semester. He reviewed the previous reports and the partnership with Gonzaga to work on this report. The partnership was a part of the Educational Partnerships for Innovation in Communities (EPIC) model for networking with universities and communities nationwide.

The students presented their work, highlighting the work they did to explore the calculating of the GHG emissions from local government and community-wide. The areas included determining the inventory boundary, all emissions from local government activities, government-owned buildings, road transportation, power consumption, streetlights, signals, water/wastewater facilities and

community uses such as industrial processes, transportation and agriculture. Dawson Matthews reviewed the summary of GHG emissions by sector and provided an overview of the report.

C. Priority Strategy 3. Sustainable City

• NPDES Permit Update

Cadie Olsen discussed the National Pollutant Discharge Elimination System (NPDES) permit process update. She gave an overview of the work towards a variance to the permit and the process. The proposed variance timeline starts with the City submitting a variance request to Ecology in May 2019. Then Ecology works through rule making process and reviewing the application, submitting it to EPA for approval in 2021. It is anticipated a new permit including a variance to be issued in 2022.

Consent Items

- 1. Increase to contact for On-Call Engineering Services
- 2. Riverside Extension Phase 2B Administrative Reserve Increase
- 3. Sunset Blvd. Royal to Lindeke Administrative Reserve Increase
- 4. Sprague Sherman Plaza Administrative Reserve Increase
- 5. Contract Amendment for Scaffolding Services at Waste to Energy <u>Street Department</u>
 - 6. Purchasing Thermoplastic Road Markers
 - 7. Purchasing Sign Posts
 - 8. Purchasing Sign Blanks
 - 9. Value Blanket for Nuvo Gap Crack Sealer
 - 10. Value Blanket for Hot-pour Rubberized Sealant
 - 11. Annual Value Blanket for Asphalt Mixes
- 12. Bureau of Reclamation (BOR) Drought Response Water Grant Application
- 13.2019 Bridge Grant Opportunities

Executive Session None.

<u>Adjournment</u> The meeting adjourned at 3:00 p.m.

<u>Prepared by:</u> Barbara Patrick, Administrative Specialist

Chair

Public Infrastructure, Environment and Sustainability Committee Meeting Agenda for March 25, 2019 COUNCIL BRIEFING CENTER

The Spokane City Council's Public Infrastructure, Environment and Sustainability Committee meeting will be held at **1:15 p.m. on March 25, 2019** in Council Briefing Center, Lower Level, City Hall, 808 West Spokane Falls Boulevard, Spokane, Washington.

The meeting will be conducted in a standing committee format. Because a quorum of the City Council may be present, the standing committee meeting will be conducted as a committee of the whole council. The Public Infrastructure, Environment and Sustainability Committee meeting is regularly held every 4th Monday of each month at 1:15 p.m. unless otherwise posted.

The meeting will be open to the public, with the possibility of moving or reconvening into executive session only with the members of the City Council and the appropriate staff. No legislative action will be taken. No public testimony will be taken and discussion will be limited to appropriate officials and staff.

AGENDA

I. <u>Call to Order</u>

II. Approval of minutes from February 25, 2019

III. Discussion Items

- A. Council Requests
 - 1. Consent Items for Discussion
 - 2. Legislative Items (10 minutes)
 - 3. Urban Forestry Ordinance Council Member Kinnear (10 minutes)
- B. Staff Requests

IV. <u>Strategic Initiatives Session – Council Member Beggs and Scott Simmons</u>

- Priority Strategy 1: Rapidly Accelerating Street Pavement Maintenance Projects
 - Riverside Avenue Public Input Results Brandon Blankenagel (10 minutes)
 - Create prioritization matrix for arterial street maintenance projects Gary Kaesemeyer (10 minutes)
 - Develop program for paving unimproved residential streets Kyle Twohig (10 minutes)
- Priority Strategy 2: Repurposing Public Property and Assets to Stimulate Private Investment
 - Putting our renewable energy resources to work in the community:
 - Greenhouse Gas Inventory presentation by Gonzaga Dr. Alex Maxwell and students (20 minutes)
- Priority Strategy 3: Sustainable City
 - NPDES Permit Update Scott Simmons (15 minutes)

V. <u>Consent Items</u>

- 1. Increase to contact for On-Call Engineering Services
- 2. Riverside Extension Phase 2B Administrative Reserve Increase
- 3. Sunset Blvd. Royal to Lindeke Administrative Reserve Increase
- 4. Sprague Sherman Plaza Administrative Reserve Increase
- 5. Contract Amendment for Scaffolding Services at Waste to Energy <u>Street Department</u>
 - 6. Purchasing Thermoplastic Road Markers
 - 7. Purchasing Sign Posts
 - 8. Purchasing Sign Blanks
 - 9. Value Blanket for Nuvo Gap Crack Sealer
 - 10. Value Blanket for Hot-pour Rubberized Sealant
 - 11. Annual Value Blanket for Asphalt Mixes
- 12. Bureau of Reclamation (BOR) Drought Response Water Grant Application
- 13.2019 Bridge Grant Opportunities

VI. <u>Executive Session</u>

Executive Session may be held or reconvened during any Public Infrastructure, Environment, and Sustainability Committee meeting.

VII. Adjournment

Next Public Infrastructure, Environment, and Sustainability Committee Meeting

April 22, 2019 1:15 p.m. in the Council Briefing Center

Page 2 of 2

AMERICANS WITH DISABILITIES ACT (ADA) INFORMATION: The City of Spokane is committed to providing equal access to its facilities, programs and services for persons with disabilities. The Council Briefing Center in the lower level of Spokane City Hall, 808 W. Spokane Falls Blvd., is wheelchair accessible and also is equipped with an infrared assistive listening system for persons with hearing loss. Headsets may be checked out (upon presentation of picture I.D.) through the meeting organizer. Individuals requesting reasonable accommodations or further information may call, write, or email Human Resources at 509.625.6363, 808 W. Spokane Falls Blvd, Spokane, WA, 99201; or msteinholfson@spokanecity.org. Persons who are deaf or hard of hearing may contact Human Resources through the Washington Relay Service at 7-1-1. Please contact us forty-eight (48) hours before the meeting date.

Briefing Paper ... _

Public Infrastructure, Environment & Sustainability Committee		
Division & Department:	City Council; Parks & Recreation; Planning & Development Services	
Subject:	Urban Forestry Ordinance	
Date:	March 12, 2019	
Contact (email & phone):	Jake Fraley – <u>ifraley@spokanecity.org</u> ; (509) 625-6715	
City Council Sponsor:	Lori Kinnear	
Executive Sponsor:		
Committee(s) Impacted:	P.I.E.S.	
Type of Agenda item:	□ Consent ⊠ Discussion □ Strategic Initiative	
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	Comprehensive Plan; Strategic Plan; Urban Forestry Administrative Policy	
Strategic Initiative:	Innovative Infrastructure	
Deadline:		
oxygen and filter airborne poll benefits. This ordinance will be Spokane's urban forest. To acc should be done in consultation also be oriented towards reach ordinance addresses these poil amendments to the City's deve	ique environmental asset to the City. Trees within the City limits produce utants, save energy costs, and reduce storm water runoff, among other e part of a larger legislative effort to promote the growth and health of complish this, the administration of the City's Urban Forestry Program with the Neighborhood & Business Services Division. The program must ning certain aspirational goals surrounding urban forestry. This nts while building the foundation for urban forestry-related elopment code in the future.	
 Forestry Program Commits the City of Sp canopy coverage (perowithin the City limits to 23%); (2) create new r Urban Forestry Plan on Consolidates all definit Requires that the direct director of the NBS Division 	puage highlighting the "Findings, Purpose, and Intent" of the Urban pokane to three new urban forestry aspirational goals: (1) increase the centage of land surface area covered under a tree canopy) of all land to 30% by the year 2030 (current canopy coverage estimated to be ~ eforestation programs and maintain existing ones; and (3) update the nce at least every five years tions in the ordinance into one, coherent "Definitions" sections ctor of the Urban Forestry program consult and coordinate with the vision on the execution of the program o" language changes and improvements for clarity	

Budget Impact:			
Approved in current year budget?	🗆 Yes	🛛 No	□ N/A
Annual/Reoccurring expenditure?	🗆 Yes	🛛 No	□ N/A
If new, specify funding source:			
Other budget impacts: (revenue generating, match requirements, etc.)			

Operations Impact:		
Consistent with current operations/policy?	🗆 Yes 🖾 No	→ 🗆 N/A
Requires change in current operations/policy?	🖾 Yes 🛛 No	● □ N/A
Specify changes required:		
Known challenges/barriers:		

ORDINANCE NO. C-_____

An ordinance regarding Spokane's Urban Forestry Program; amending Article V of chapter 12.02 of the Spokane Municipal Code.

WHEREAS, Spokane's urban forest provides many economic, health and environmental benefits for city residents and businesses; and

WHEREAS, trees produce oxygen and filter airborne particulates which improves Spokane's air quality; and

WHEREAS, trees improve water quality and reduce storm water runoff – reducing pollutants and mitigation costs; and

WHEREAS, trees save energy costs by providing shade, contributing to summer cooling, and moderating the effects of wind – according to the U.S. Forest Service's Center for Urban Forest Research, properly placing just three trees near a home can reduce that home's energy costs by up to 30%; and

WHEREAS, there are over 76,000 street trees which have been inventoried and analyzed for value and benefits in the City of Spokane, and those trees provide tangible financial value, such as:

- Over \$700,000 in reduced heating and cooling costs annually,
- Over \$75,000 in annual reductions of atmospheric CO2,
- Nearly \$300,000 in annual savings for our storm water mitigation efforts due to rain interception and storage, and
- Lowered crime rates and increased marketability and property values of about \$2,800,000 annually; and

WHEREAS, pavement which is shaded by trees will last 10 years longer than exposed pavement, resulting in less maintenance and savings in paving material and labor costs; and

WHEREAS, people are more likely to shop in business districts with treescaping and are likely to spend more when doing so; and

WHEREAS, patients with even just a view of greenery, such as parks, gardens, and/or trees, heal faster; and

WHEREAS, trees provide a wealth of wildlife habitat and are especially important in urban areas as connections to open space and wild areas; and

WHEREAS, studies have shown that properly-designed plantings of trees and shrubs can reduce the apparent loudness of urban areas by 6-10 decibels; and

WHEREAS, trees make our city more livable and a healthy urban forest plays important roles in our quality of life and the sustainability of Spokane's environment by lowering our energy costs, giving us clean air and clean water, imparting a distinctive character and beauty, enriching the aesthetic experience of the community, softening and screening urban development, providing habitat for wildlife, and adding to our history, civic pride and public life.

NOW THEREFORE, the City of Spokane does ordain:

Section 1. That Article V of Chapter 12.02 of the Spokane Municipal Code is amended to read as follows:

Article V: Urban Forestry Program Section 12.02.900 ((Urban Forestry Program))Findings, Purpose, and Intent

((A new article is created in chapter 12.02 SMC, designated Article V, Urban Forestry Program, to consist of SMC 12.02.900 through SMC 12.02.958.))

- A. <u>The City of Spokane recognizes that the design of the urban environment</u> <u>must ultimately be for the benefit of the quality of life of the human</u> <u>inhabitants, and that a healthy urban forest is a key component of the</u> <u>quality of life.</u>
- B. <u>The focus of the urban forestry program is to balance competing needs of</u> the community, in the context of limited municipal resources, while promoting and maintaining a healthy urban forest.
- C. The City of Spokane intends, by enacting this chapter, to:
 - a. <u>promote the restoration and preservation of desirable trees and</u> <u>shrubs;</u>
 - b. <u>advocate for the establishment and retention of adequate tree</u> <u>planting spaces while considering the community's desire for urban</u> <u>aesthetics; and</u>
 - c. <u>as resources may allow, to address problems arising from improper</u> <u>planting, maintenance, or removal of trees and shrubs.</u>
- D. <u>The implementation of this Article V is at all times subject to</u> appropriations. It is not a purpose of this article to create or expand any duty, responsibility, or liability on the part of the City of Spokane, its officers, agents, employees, or contractors. Any such duty nonetheless deemed created does not extend to any specific or identifiable person or class. Additionally, nothing in this article and no action taken or inaction by the City, its officers, agents, employees, or contractors shall reduce the responsibility of other persons or entities for intentional or negligent acts or omissions, including failure to maintain their property, curtilage or related areas with reasonable care. This subsection (D) controls all other provisions.

Section ((12.02.902))<u>12.02.905</u> ((Purpose))<u>Spokane Urban Forestry Plan and</u> <u>Goals</u>

- A. ((The city council and park board recognize that the design of the urban environment must ultimately be for the benefit of the quality of life of the human inhabitants, and that a healthy urban forest is a key component of the quality of life. The focus of the urban forestry program will be on balancing competing needs of the community, in the context of limited municipal resources, while promoting and maintaining a healthy urban forest.
- B. The purpose of this article is to promote and protect the public health, safety and general welfare through the initiation of an urban forestry program, including supervision of the planting, pruning, removal and maintenance of trees, shrubs, and other plants within the public rights-ofway and public places of the City and by offering education and assistance to citizens to promote a healthy urban forest.
- C. It is also the intent of the city council to:
 - 1. promote the restoration and preservation of desirable trees and shrubs;
 - 2. advocate for the establishment and retention of adequate tree planting spaces while considering the community desire for urban aesthetics; and
 - 3. as resources may allow, to address problems arising from improper planting, maintenance, or removal of trees and shrubs.
- D. The urban forestry program reflects a municipal goal, but its implementation may be subject to budget or other limitations or restrictions from time to time. It is not a purpose of this article to create or expand any duty, responsibility, or liability on the part of the City of Spokane, its officers, agents, employees, or contractors. Any such duty nonetheless deemed created does not extend to any specific or identifiable person or class. Additionally, nothing in this article and no action taken or inaction by the City, its officers, agents, employees, or contractors shall reduce the responsibility of other persons or entities for intentional or negligent acts or omissions, including failure to maintain their property, curtilage or related areas with reasonable care. This subsection (D) controls all other provisions.))
- A. <u>It is the goal of the City of Spokane that thirty percent (30%) of the total</u> <u>land area within the City of Spokane has a healthy and functioning tree</u> <u>canopy coverage by 2030.</u>
- B. <u>It is a goal of the City of Spokane to create and maintain active re-</u> forestation programs in Spokane.

C. <u>Beginning on the effective date of this section, the City of Spokane will</u> <u>update its urban forestry plan at least every five (5) years.</u>

Section 12.02.910 Definitions

((The following definitions, SMC 12.02.932 through SMC 12.02.958, apply to this article.))

- A. "Arboricultural manual" means the Arboricultural Specifications and Standards of Practice for the City of Spokane which contains regulations and standards for the planting, pruning, removal, and maintenance of trees and shrubs on public property and a program for developing and improving the tree, shrub, and other plant resources of the community.
- <u>B. "Commercial tree work" means any work performed on street or public trees by a person retained by the property owner or public utility.</u>
- <u>C. "Director" means the director of the parks and recreation division or the director's designee.</u>
- D. "Hazardous tree" means any tree or tree part that poses a high risk of damage to persons or property.
- E. "Heritage tree" means a tree or collection of trees that is particularly desirable because it has valued, unique characteristics that set it apart from other similar trees as specified by SMC 12.02.975.
- F. "Major pruning" means the pruning or cutting out of branches two inches (2") in diameter or greater, root pruning, or cutting out of branches and limbs constituting greater than fifteen percent of the tree's foliage bearing area. The work shall retain the natural form of the tree.
- G. "Minor pruning" means pruning or cutting out of water sprouts, suckers, twigs, or branches less than two inches (2") in diameter, or which constitutes less than fifteen percent (15%) of the tree's foliage bearing area. The work shall retain the natural form of the tree. Removal of dead wood, broken branches, and stubs are included within the definition of minor pruning. Minor pruning of street trees may be performed by the owner of the adjacent property without obtaining a permit from the City.
- H. "Public place" means property owned in fee by the City of Spokane.
- I. "Public Tree" is a tree on City-owned property. A public tree may also be a street tree.

- J. "Public utility" means any organization that has a franchise to utilize the public rights-of-way.
- K. "Right-of-way" means that strip of land:
 - 1. <u>dedicated for public travel, including the main traveled portions of</u> <u>the streets and sidewalks as well as parking or planting strips,</u> <u>pedestrian buffer strips, and other associated areas, or over which</u> <u>is built, public streets, sidewalks, or alleys for public travel; or</u>
 - 2. <u>used for or dedicated to utilities installation within the right-of-way.</u>
- L. "Severe crown reduction" means the specific reduction in the overall size of a tree and/or the severe internodal cutting back of branches or limbs to stubs within the tree's crown to such a degree as to remove the normal tree canopy and disfigure the tree. Severe crown reduction is not a form of pruning and, for street trees and trees within the public right-of-way, is prohibited.
- <u>M. "Street tree" means any tree or shrub located within the public right-of-</u> way.
- N. "Tree committee" means the urban forestry tree committee created by SMC 04.28.010.
- O. "Tree lawn," "parking strip," and "planting strip" are used interchangeably to mean the area between the curb and sidewalk.
- P. "Urban forestry plan" means a comprehensive plan addressing the longterm goals and strategic planning related to tree planting, pruning, removal, and maintenance needs of trees located in public places to encourage the sustainability of the urban forest. Neighborhood specific tree plans or neighborhood land use plans which incorporate sections or language related to public trees shall be incorporated in the general urban forestry plan and neighborhoods shall consider the urban forestry plan in the development of neighborhood specific tree plans or land use plans.

Section ((12.02.904))<u>12.02.915</u> Urban Forestry Program

A. Establishment.

The urban forestry program is established within the parks and recreation ((department))division, which exercises jurisdiction over street trees and shrubs ((within the public rights-of-way)) and trees and shrubs located in other public places as defined in SMC 12.02.910(H).

B. Responsible Official.

The director of parks and recreation is designated as the responsible official for administering the urban forestry program. The director may designate an employee as the urban forester to perform the duties to administer the program.

- C. Authority.
 - 1. The director regulates and permits the planting, pruning, removal, replacement, and maintenance of all street trees.
 - 2. The director, with the advice and assistance of the tree committee, will prepare the Arboricultural Manual <u>and associated administrative</u> <u>policy</u> and will present the manual and administrative policy to the park board and city council for adoption.
 - 3. The director, with the advice and assistance of the tree committee, will prepare the urban forestry ((management)) plan <u>and associated</u> <u>administrative policy</u> and will present the plan and administrative policy to the park board, plan commission, and city council for adoption.
 - 4. The director examines all trees and shrubs within the scope of this article to determine whether they are contagiously diseased, dead, or hazardous, obstructing the right-of-way, or posing a threat to public safety, having the right to take samples from trees and shrubs for laboratory testing.
 - 5. The director, with the advice and assistance of the tree committee, will develop a plan for assisting property owners with their street trees, which plan includes educational programs and criteria for financial assistance.
 - 6. The director will develop educational programs for the public promoting proper urban forestry practices.
 - 7. The director will facilitate the establishment of a citizen advisory committee to facilitate citizen participation in the urban forestry program.
 - 8. In carrying out the duties prescribed by this section, the director shall consult and coordinate with the director of the neighborhood and business services division.

Section ((12.02.906))12.02.920 Hazard Evaluation Criteria

Municipal response to tree or other hazards within the scope of this article is in the City's sole discretion. In prioritizing a response, City officials may use the International Society of Arboriculture's ((twelve-point hazard evaluation system))current best practices for Tree Risk Assessment, but no obligation to act is created.

Section ((12.02.908))<u>12.02.925</u> Abutting Owner Responsibilities – City Tree Maintenance List

- A. Abutting property owners are responsible for the following:
 - Protection of street tree health by obtaining all permits as required by this article for planting, removal, or pruning of street trees. The property owners may perform minor pruning of street trees ((on)) <u>abutting</u> their property without obtaining a permit.
 - 2. Care and maintenance of the tree lawn to ensure proper health of the trees.
 - 3. Removal and replacement of street trees which are topped or improperly pruned if the director determines that a street tree's health is severely degraded.
 - 4. Care and maintenance of trees on their property in such a way as to not cause a hazard to the public safety or to the health of public, landmark or street trees.
 - 5. Removal of trees located on their property that have been declared a public nuisance or hazard.
 - 6. Abutting property owners must exercise reasonable care in the use or condition of their property so as not to render the right-of-way unsafe for ordinary travel or to endanger persons or property of persons using the right-of-way. Abutting property conditions may include planting or allowing trees, shrubs, plants, or other natural or human placed installations which affect the right-of-way directly or indirectly. Uses include a use with may cause or promote damage, unauthorized alteration, or interference with the right-of-way, not by way of limitation. The abutting property includes the curtilage and areas in or near the right-of-way, whether or not actively used for public travel.
- B. Any duty imposed upon a property owner applies jointly and severally to a property occupant, but enforcement action against an occupant does not release the owner from ultimate responsibility hereunder.
- C. Sometimes, funding may become available for the ((park department))program to assist in planting new street trees, pruning, removal, or otherwise helping with street tree maintenance for street trees on tree lawns. This effort may arise in low income neighborhoods or become available through community development federal funding or other public or private resources. No action by the ((park department))program shall relieve a property owner of an obligation under this article except to the extent the ((park department))program may be able to assist and support the property owner, and no municipal duty is created thereby. If a new street tree is proposed to be planted, the ((park department))program shall work with the abutting property owner to

confirm the owner's understanding of owner's responsibilities under this article. Specific reference is made to policy NE 12.5 in the Natural Environment chapter of the City of Spokane comprehensive plan, which provides for a policy of "no net loss" in street trees, explaining that street tree removal should only be granted when a tree is determined by the City to be sick, damaged, or near the end of life. This does not restrict removal for public health and safety reasons, in the determination of public safety officials.

D. The director may develop a maintenance list for street trees or other trees in certain areas where the ((department))program is able to perform tree maintenance work. Except in such circumstances, and only to the extent resources may be available, ((or to the extent SMC 12.02.935(F) may apply,)) actions taken under this article are at the cost and liability of the abutting property owner or other responsible party or parties, as may be determined by the director.

((Section 12.02.930 Definitions

The following definitions, SMC 12.02.932 through SMC 12.02.958, apply to this article.

Section 12.02.932 "Arboricultural Manual" Defined

"Arboricultural manual" means the Arboricultural Specifications and Standards of Practice for the City of Spokane which contains regulations and standards for the planting, pruning, removal, and maintenance of trees and shrubs on public property and a program for developing and improving the tree, shrub, and other plant resources of the community.

Section 12.02.934 "Commercial Tree Work" Defined

"Commercial tree work" means any work performed on street or public trees by a person retained by the property owner or public utility.

Section 12.02.936 "Director" Defined

"Director" means the director of the parks and recreation department or the director's designee.

Section 12.02.938 "Hazardous Tree" Defined

"Hazardous tree" means any tree or tree part that poses a high risk of damage to persons or property.

Section 12.02.940 "Person" Defined

See SMC 1.02.100.

Section 12.02.942 "Pruning" Defined

- A. "Major pruning" means the pruning or cutting out of branches three inches in diameter or greater, root pruning, or cutting out of branches and limbs constituting greater than fifteen percent of the tree's foliage bearing area. The work shall retain the natural form of the tree.
- B. "Minor pruning" means pruning or cutting out of water sprouts, suckers, twigs, or branches less than three inches in diameter, or which constitutes less than fifteen percent of the tree's foliage bearing area. The work shall retain the natural form of the tree. Removal of dead wood, broken branches, and stubs are included within the definition of minor pruning. Minor pruning may be performed by the property owner without obtaining a permit from the City.

Section 12.02.944 "Public Place" Defined

"Public place" means property owned in fee by the City of Spokane.

Section 12.02.945 "Public Tree" Defined

"Public Tree" is a tree on City-owned property or on the public right-of-way abutting City-owned property. A public tree may also be a street tree. "Cityowned property" does not refer to the right-of-way.

Section 12.02.946 "Public Utility" Defined

"Public utility" means any organization that has a franchise to utilize the public rights of way.

Section 12.02.948 "Right-of-way" Defined

"Right-of-way" means that strip of land:

- A. dedicated for public travel, including the main traveled portions of the streets and sidewalks as well as parking or planting strips, pedestrian buffer strips, and other associated areas, or over which is built, public streets, sidewalks, or alleys for public travel; or
- B. used for or dedicated to utilities installation within the right-of-way.

The "right-of-way" is typically an easement over the land of the abutting property owner.

Section 12.02.950 "Severe Crown Reduction" Defined

"Severe crown reduction" means the specific reduction in the overall size of a tree and/or the severe internodal cutting back of branches or limbs to stubs within the tree's crown to such a degree as to remove the normal tree canopy and disfigure the tree. Severe crown reduction is not a form of pruning.

Section 12.02.952 "Street Tree" Defined

"Street tree" means any tree or shrub located within the public right-of-way.

Section 12.02.954 "Tree Committee" Defined

"Tree committee" means the urban forestry tree committee created by chapter 4.28 SMC.

Section 12.02.956 "Tree Lawn" Defined

"Tree lawn" means the area within the right-of-way easement, generally the lawn between the curb and sidewalk; also known as the "parking or planting strip."

Section 12.02.958 "Vegetation Management Plan" Defined

"Vegetation management plan" means a comprehensive plan addressing the long-term goals and strategic planning related to tree planting, pruning, removal, and maintenance needs of community trees to encourage the sustainability of the urban forest. Neighborhood specific tree plans or neighborhood land use plans which incorporate sections or language related to public trees shall be incorporated in the general vegetation management plan and neighborhoods shall consider the vegetation management plan in the development of neighborhood specific tree plans or land use plans.))

Section ((12.02.910))12.02.960 Tree Permit Required

A. Pruning and Removal of Trees.

No person may perform major pruning ((-of trees,)) or cause or authorize any person to prune or remove <u>street</u> trees((,)) <u>or trees located</u> in planting strips((, rights-of-way,)) or other public places without first filing an application and obtaining a street tree pruning/removal permit from the City.

1. Application Data.

The application must state the location, number, and kind of trees to be pruned or removed; the kind of maintenance or other work to be done; and such other information as the director may find reasonably necessary to a fair determination of whether a permit should be issued. 2. Standards for Issuance.

The director issues the permit if in his <u>or her</u> judgment the proposed work is consistent with the ordinance and the proposed method and workmanship are satisfactory.

3. Time.

Any permit issued shall contain a date of expiration and the work must be completed in the time allowed on the permit.

4. Major Pruning.

The City requires that the pruning be performed by a person licensed by the City pursuant to SMC 10.25.010.

B. Planting of Trees.

No person may plant a tree in any City rights-of-way without first obtaining a street tree permit from the City.

C. Notice of Completion.

A notice of work completion concerning tree planting, removal, or major pruning must be given by the permit holder within five days to the director for inspection. Inspection shall be completed within ten working days.

D. Annual Permit for City Departments and Utilities with Easements or Franchises Within the Rights-of-Way. City departments and utilities may apply for an annual permit to perform

City departments and utilities may apply for an annual permit to perform pruning, planting, or removal of <u>street</u> trees ((<u>within the rights-of-way</u>)). The permit application must include an annual plan that identifies work that will be done during the year. The permit holder must file quarterly reports which will identify all work done on street trees and trees in public places.

E. Emergency Pruning and Removal.

If immediate removal or major pruning is required to protect the health and safety of the public, tree work to mitigate the immediate hazard may be performed without a permit. The director must be notified on the first working day after the tree work is begun and a permit must be obtained. In the case of a declaration of emergency notification may be made within a reasonable time.

F. The director may decline to issue a permit, or revoke a permit issued, to any person who refuses or neglects to comply with any of the provisions of this code.

Section ((12.02.912))12.02.965 Removal, Pruning of Trees and Shrubs

A. The director may authorize or order removal of or may remove street trees and shrubs situated within the rights-of-way, or other treatment or pruning, whenever one or more of the following criteria are met:

- 1. The tree or shrub is hazardous ((or other good cause)) <u>as</u> <u>determined by SMC 12.02.920</u>.
- 2. The tree or shrub is damaging public improvements or public utilities and removal is necessary because of the installation of, or potential or actual damage to, a sidewalk, parkway, curb, gutter, pavement, sewer line, underground utility or other municipal improvement.
- 3. There is infection or infestation of trees or shrubs with a disease or pest detrimental to the growth, health or life of such trees and which infection or infestation cannot be controlled or removed.
- 4. The vegetation obstructs rights-of-way, authorized traffic signs or is determined to interfere with line of sight or creates other identified traffic or safety concerns.
- 5. The tree's health is severely degraded because of improper pruning, including severe crown reduction.
- B. When the engineering services department determines that vegetation obstructs a public right-of-way, it notifies the director. Unless an emergency requires immediate abatement by the City, the director may utilize the procedures in SMC ((10.20.020))12.02.0210 ((SMC 12.02.930,)) or any other lawful means for pruning or removal.
- C. As a condition of removal, the director requires replacement with trees or shrubs that are appropriate for the location, unless replacement is not possible.
- D. If a street tree is to be removed at the order of the director, unless immediate removal is necessary to protect public health and safety, he notifies the property owner and tenants thirty (30) days prior to the proposed date of removal. The notice states the reason(s) for the removal and the proposed date of the removal. An order of removal may include an estimated cost and provide the property owner with the option of procuring removing within a time specified by authorized persons, but no estimate shall bind the City to accept any amount less than the true and actual cost determined after corrective action is taken.
- E. For City projects which will require removing one or more trees, the department will notify the property owner and tenants thirty (30) days prior to the proposed date of removal. A copy of the notice shall also be delivered to the department of neighborhood services and code enforcement within the same time frame.
- F. Questions affecting right-of-way management are referred to the director of the engineering services department. The parks <u>and recreation</u> director may also refer inquiries about interdepartmental assistance to the director

of engineering services, where a healthy tree may be preserved with extra measures involving additional cost or expense, on a site by site basis.

Section ((12.02.914))<u>12.02.970</u> Tree Protection, Conservation and Preservation

- A. All street and public trees near any excavation, demolition, or construction of any building, structure, street, or utility work must be sufficiently guarded and protected by those responsible for such work as to minimize potential injury to said trees and to maximize their chance for survival. When street and public trees are near the project, any construction permits issued by the City must be approved by the director, who may require protective measures as specified in the Arboricultural Manual.
- B. No person may destroy, injure, or deface any street tree or public tree on public property by any means, including, but not limited to, the following methods:
 - Impede the free passage of water, air, or fertilizer to the roots of any tree, shrub, or other plant by depositing vehicles, concrete, asphalt, plastic sheeting, or other material detrimental to trees or shrubs on the tree lawn or on the ground near any tree((-));
 - Pour any toxic material on any tree or on the ground near any tree((-));
 - Cause or encourage any fire or burning near or around any tree((-)):
 - Severely reduce the tree crown((except when pruning of trees under utility wires or obstructing the right-of-way as allowed by a permit issued by the director)). Removal or replacement is preferred to severe crown reduction((-)):
 - 5. Carve or attach any sign, poster, notice, or other object on any tree or fasten any rope, wire, cable, nails, screws, staples, or other device to any tree except as used to support a young or broken tree; however, nothing in this section shall be construed in such a manner that it forbids lighting of a decorative or seasonal nature, provided that such lighting is not attached in such a way as to cause permanent damage to the tree(($_{\tau}$)); or
 - 6. Plant trees reaching an expected mature height of twenty-five feet (25') or more under overhead power lines.
- C. No person may prevent, delay, or interfere with the director, or the director's designee, or any City employee in the execution or enforcement of the provisions of this article or otherwise violate this Article V.
- D. Any person responsible for a violation of this section must pay the cost of repairing or replacing any tree or shrub damaged by the violation and may

be subject to treble the amount of damages assessed in any enforcement action brought by the City, pursuant to RCW 64.12.030. The value of trees and shrubs is to be determined in accordance with the latest revision of the Guide for Plant Appraisals as published by the International Society of Arboriculture.

E. In addition to remedies under subsection (D) of this section, violation of this section is a class 1 civil infraction. The director has the discretion to issue a warning for a first-time violation.

Section ((12.02.916))<u>12.02.975</u> Protection of Public and Private Historic and Heritage Trees

- A. The historic and heritage tree preservation designation recognizes the significance of trees to the City. A tree may be retained beyond its useful life because of its contribution to the environment and City character. The intent of this ordinance is to balance the preservation of historic and heritage trees with the growth and development of the City of Spokane. A heritage or historical tree is designated by the tree committee based on the following criteria:
 - 1. Has historical significance to a person, place, or event.
 - 2. Has attained significant size in height, caliper, or canopy spread for its age and species.
 - 3. Has special aesthetic qualities for its species.
 - 4. Is prominently visible to the public, along major roads, or public places.
 - 5. Possesses rare horticulture value.
 - 6. Is not a hazard or obstruction.
 - 7. The owner of the tree agrees in writing to the "Heritage" designation of the tree and has complied with the nomination steps set forth in subsection D of this section.
- B. The purpose of the heritage tree program shall be to accomplish the following:
 - 1. Increase public awareness of trees in general and specifically Spokane's urban forest.
 - Draw attention to and protect those significant heritage trees that are unique <u>within the terms of</u> ((as specified by))this section((SMC 12.02.916)).
 - 3. Provide publicity for increased awareness of the purpose and activities of the Spokane urban forestry tree committee (UFTC), the UFTC citizen advisory committee and the urban forestry program.

- 4. Encourage public participation in the identification and perpetuation of heritage trees throughout the City.
- C. ((The definition of "heritage tree" is a tree or collection of trees that is particularly desirable because it has valued, unique characteristics that set it apart from other similar trees as specified by SMC 12.02.916.))
- D. The process for nomination shall be as follows:
 - 1. Any individual or group of individuals interested in identifying and preserving heritage trees may nominate a tree or trees on any Spokane City property for "heritage" status.
 - 2. The city council may nominate a tree or collection of trees on City property for heritage tree status.
 - 3. Heritage tree nominations shall be submitted to the urban forest tree committee on nomination forms provided by the urban forestry program of the City.
 - 4. The nomination shall at least include:
 - a. a description of the tree nominated;
 - b. the characteristics that merit the tree being designated for heritage tree status, (as designated <u>within the terms of this</u> <u>section)((in SMC 12.02.916)</u>)) including the history of the tree, if known;
 - c. a photograph of the tree; and
 - d. a map locating the tree.
 - 5. The owner of the property on which the nominated tree is located shall agree to the nomination by signing the consent statement on the nominating form.
 - 6. The owner of the property on which the nominated tree is located must agree in writing to allow the tree to be placed on a City map of heritage trees.
 - 7. To inform future property owners, the owner of the property will be encouraged in the notification letter to record a notice to title indicating the location of the heritage tree on the property.
 - 8. Upon recommendation by the urban forest tree committee, the council may remove designation of any tree as a heritage tree if it finds that such designation is no longer appropriate.
- E. The authority and process for designation of heritage trees shall be as follows:
 - The urban forest tree committee (UFTC) shall consider heritage tree nominations at their regular meetings, using the heritage tree designation guidance document to make their determination. The consideration meetings should take place within two months from receipt of a nomination. No tree may be given heritage tree status

unless a quorum of UFTC members discuss and vote in favor of the heritage tree nomination.

- Criteria to be considered by the urban forest tree committee for recommending a nomination for heritage tree status shall include the following (as designated <u>within the terms of this section((by SMC 12.02.916)))</u>:
 - a. Has historical significance to a person, place, or event.
 - b. Has attained significant size in height, caliper, or canopy spread for its age and species.
 - c. Has special aesthetic qualities for its species.
 - d. Is prominently visible to the public, along major roads or public places.
 - e. Possesses rare horticultural value.
 - f. Is not a hazard or obstruction.
 - g. The owner of the tree agrees in writing to the "heritage" designation of the tree and has complied with the nomination steps set forth in subsection D of this section.
- 3. All heritage trees will be identified and recorded in a register maintained by the urban forestry tree committee and the urban forestry program.
- 4. Notice of all trees identified as heritage trees by the urban forest tree committee shall be forwarded to the mayor. All designated trees, including names of the nominator and the property owner, will then be acknowledged in a letter from the mayor to the nominator and property owner. This letter will be provided by the urban forestry program to the mayor's staff. Further individual heritage tree publicity is at the discretion of the mayor and the urban forest tree committee, such as proclamations and publicity releases.
- 5. The urban forest tree committee shall give biannual updates to the city council on the number of trees designated.
- F. The city will provide the owner with a professional arborist's assessment of the health of the tree and recommendations for maintaining the tree according to accepted pruning and care standards.
- G. A heritage tree or collection of trees is retained by the property owner and does not become the property or responsibility of the City. The property owner is responsible for all maintenance and liability issues pertaining to the tree or trees. Prior to removal of a heritage tree, a property owner must consult with the urban forest tree committee, as specified on the consent form. The City strongly encourages all heritage tree property owners to retain these significant tree(s). However, a heritage tree designation does not prohibit a property owner from developing a property

and/or removing the heritage tree or trees subject to the City's tree retention regulations.

H. The tree committee may establish additional procedures for nomination of heritage trees consistent with this section. A registry of historic trees is maintained and the designation is indicated on the City tree inventory.

Section ((12.02.918))12.02.980 Disposal of Urban Forest Products

The urban forester may sell wood and other forest products generated during urban forestry and park operations. The proceeds from such sales will be deposited in the urban forestry fund, as provided in SMC 07.08.135.

Section ((12.02.920))12.02.985 Appeal

Decisions of the director under SMC ((12.02.910))12.02.930 and SMC ((12.02.912)) 12.02.935 may be appealed by the property owner to the ((tree committee))hearing examiner within thirty (30) days of receipt of the permit denial or the director's decision. The appeal notice must be in writing and submitted to the director. The notice must include, at a minimum, the following information:

- A. Name, address and telephone number of applicant.
- B. Location of trees involved in the appeal.
- C. Decision being appealed; and
- D. A concise statement of the reasons for appeal.

((The appeal is heard at the next regularly scheduled meeting of tree committee following receipt of the notice of appeal. Decisions of the tree committee may be appealed to the hearing examiner by filing a notice of appeal with the director within fifteen days of the tree committee's decision with a copy also filed with the City hearing examiner.)) Any appeal from the decision of the hearing examiner is by writ to the appropriate court. There is no right of stay of any order pending appeal unless allowed by the director, conditioned upon posting of a bond or other security or requirements as the director may order.((An appealing party may request emergency review of a director's denial or conditioning of any stay, pending appeal, by the chair of the tree committee. Consideration of such a request is at the chair's sole discretion.))

PASSED by the City Council on ______.

	Council President
Attest:	Approved as to form:
City Clerk	Assistant City Attorney
Mayor	Date
	Effective Date

Public Infrastructure, Environment, and Sustainability Committee

Division & Department:	Integrated Capital Management	
Subject:	Riverside Ave, Division to Monroe	
Date:	03/25/2019	
Author (email & phone):	Brandon Blankenagel 625-6419	
City Council Sponsor:		
Executive Sponsor:		
Committee(s) Impacted:	Urban Experience; PIES	
Type of Agenda item:	🔲 Consent 🗹 Discussion 🔲 Strategic Initiative	
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	Decision Matrix Resolution No. 2017-0023	
Strategic Initiative:		
Deadline:		
Outcome: (deliverables, delivery duties, milestones to meet)	Preliminary results for public input for the Riverside Avenue Concept	
selecting from six possible street configurations. Final scope development began in July, again with an online survey and mailed ballots to property & business owners. In February, 2019, a final survey and ballots was processed to verify parking options and assess overall support for the project concept. Preliminary results are now available.		
 Executive Summary: Project scope includes 3-Lane roadway with parking-protected bicycle lanes (cycle tracks). The scope also includes "paint and planter" bumpouts between Wall and Washington. The February outreach sought input regarding options for implementing angled parking, and asked whether respondents supported the concept or not. In each case gathering input, public opinion was gathered through an online survey and business and property owner opinions were gathered through mailed ballots. Results point to a balanced approach to parking, but also include important input regarding operational needs along the corridor. Review the decision matrix outcomes for the Riverside project concept. 		
Budget Impact: Approved in current year budget? Yes Annual/Reoccurring expenditure? Yes Yes No If new, specify funding source: No Other budget impacts: (revenue generating, match requirements, etc.) Operations Impact: Consistent with current operations/policy? Yes No Requires change in current operations/policy? Yes Specify changes required: Known challenges/barriers:		

Public Infrastructure, Environment, and Sustainability Committee

	e, Environment, and Sustainability Committee	
Division & Department:	Public Works - Environmental Programs	
Subject:	2016 Greenhouse Gas Emissions Update	
Date:	March 25, 2019	
Author (email & phone):	Cadie Olsen, <u>colsen@spokanecity.org</u> 625-6968	
City Council Sponsor:		
Executive Sponsor:	Scott Simmons	
Committee(s) Impacted:	PIES	
Type of Agenda item:	Consent Discussion Strategic Initiative	
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)		
Strategic Initiative:	Innovative Infrastructure: Putting Renewable Resources to Work	
Deadline:		
Outcome: (deliverables, delivery duties, milestones to meet)	Final Report scheduled to be published near the end of June, 2019	
Background/History: In 2010, under City of Spokane Resolution 2010-038, the City set greenhouse gas reduction goals. In order to track progress toward these goals the City has now completed five greenhouse gas emissions inventories for the years: 1990, 2005, 2010, 2012, and 2016. In 2017, Ordinance 15.05.060 set the inventory schedule to every three years.		
For the current inventory on 2016 data, the City of Spokane contracted with Gonzaga University to complete the comprehensive report including emissions from local government operations and community-scale emissions. The City and Gonzaga University chose to pilot an educational partnership model called EPIC-N: partnering higher education and communities to improve the places we live. <u>www.epicn.org</u>		
This model gives students professional level experience, leadership skills, and workforce development, while strengthening strategic partnerships and building capacity in the community. All previous years' inventories were completed in-house by City staff.		
The benefits to the City of partnering with a local University include: an external, objective assessment; access to cutting edge, best practices, and increased social capital by investing in our partnerships with higher education.		
Executive Summary:		
-	ng the methodology for local-government operations from previous ne International Council for Local Environmental Initiatives (ICLEI) Local	

- The City continued using the methodology for local-government operations from previous inventories, which is the International Council for Local Environmental Initiatives (ICLEI) Local Government Operations Protocol, version 1.1, May 2010. This protocol was adopted by California Air Resources Board in 2010 and recommended in guidance by EPA in 2015.
- The City changed the reporting methodology for community-wide operations to the GPC (Global Protocol for Community-Scale Greenhouse Gas Emission Inventories). This preferred method allows comparison to sustainable cities throughout the world.

 The change in protocol methodology to the Global Protocol for Community Scale Greenhouse Gas Emission Inventories, describing activities occurring within Spokane city boundary, is using the highest standard in climate inventory measures.
 Compared to the State of Washington, Spokane's carbon emissions from the transportation
sector are 25% lower; with 62% of carbon emissions coming from transportation state-wide
(U.S. Energy Information Administration, 2019) and only 37% coming from transportation in
Spokane – an improvement over past performance, and among the lowest in the state.
• Overall results are currently being finalized and are expected to be released in the final report
at the end of April, 2019. Results will be available on the City's website by the end of June,
2019.
Budget Impact:
Approved in current year budget? 🔲 Yes 🔛 No
Annual/Reoccurring expenditure? 🦳 Yes 🔚 No
If new, specify funding source:
Other budget impacts: (revenue generating, match requirements, etc.)
Operations Impact:
Consistent with current operations/policy? 🛛 🗖 Yes 🔲 No
Requires change in current operations/policy? 🛛 🔲 Yes 📄 No
Specify changes required:
Known challenges/barriers:

PIES		
Division & Department:	Public Works, Engineering Services	
Subject:	Contract Amount Increase	
Date:	March 25, 2019	
Author (email & phone):	Dan Buller <u>dbuller@spokanecity.org</u> , 625-6391	
City Council Sponsor:		
Executive Sponsor:	Scott Simmons	
Committee(s) Impacted:	PIES	
Type of Agenda item:	X Consent Discussion Strategic Initiative	
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)		
Strategic Initiative:		
Deadline:		
Outcome: (deliverables, delivery duties, milestones to meet)	Contract increase approval	
 with Parametrix for construction management services for \$300,000. <u>Executive Summary:</u> Engineering utilizes consultant construction management services when warranted by specialty projects outside our typical capabilities or when high work volumes demand outside assistance to provide proper construction management and quality control Funds expended under this contract are reimbursed by individual construction projects paid for by a combination of local, state and federal funds, depending on the project. We are requesting a contract amount increase of \$300,000 to take us through the remaining life of the contract. 		
Budget Impact: Approved in current year budg Annual/Reoccurring expenditu If new, specify funding source: Other budget impacts: (revenu Operations Impact: Consistent with current operat Requires change in current ope Specify changes required: Known challenges/barriers:	re? 🔲 Yes 🕱 No e generating, match requirements, etc.) ions/policy? 💦 Yes 🔲 No	

PIES Committee

Division & Department:	Engineering Services		
Subject:	Riverside Extension Phase 2B Administrative Reserve Increase		
Date:	3/25/19		
Contact (email & phone):	Joel Graff, jgraff@spokanecity.org, 625-7757		
City Council Sponsor:	CM Beggs		
Executive Sponsor:	Scott Simmons		
Committee(s) Impacted:	PIES		
Type of Agenda item:	Consent 🔲 Discussion 🔲 Strategic Initiative		
Alignment: (link agenda item			
to guiding document – i.e.,			
Master Plan, Budget , Comp			
Plan, Policy, Charter, Strategic			
Plan)			
Strategic Initiative:			
Deadline:			
Outcome: (deliverables,	For council consideration. Request will be forwarded to the council		
delivery duties, milestones to	agenda for approval.		
meet)			
Dealer and /utara			

Background/History:

Engineering Project #2015078 – Riverside Extension Phase 2B from Erie to Trent, is the final phase of the MLK Blvd. road project in the East Central neighborhood. Due to right of way timing issues, the project was bid with a less than optimal shoe-fly approximately two blocks long to work around the property to be acquired. The ROW was secured in October 2018 which allowed the project to be completed without the temporary shoe-fly. Major items of work that were not included in the bid are large quantities of asphalt, crushed rock, curb & gutter, as well as sidewalk and swale infrastructure through this area. A part of the ROW transaction included construction of a 1900 SY paved parking lot and a 180 SY lined and irrigated swale on private property

The above described additional work not included in the original bid is approximately equal to \$550,000. The remaining admin reserve can cover some but not all of this work. Engineering Services is requesting an additional \$300,000 to complete the project.

Executive Summary:

- Due to right of way issues, the decision was made to bid the Riverside Extension Phase 2B project with a less than optimal shoe-fly work around to stay within the existing ROW. The plan was to continue working on obtaining the required ROW for the complete project as the construction progressed. If the ROW was obtained in time, the additional work to build the completed roadway would be added to the 2B project; if the ROW was not secured in time the shoefly would be constructed to allow the roadway to open and final completion of the optimal design would be constructed in a subsequent stand-alone project at a later date.
- ROW was secured in the fall of 2018, allowing construction of the final, completed design.
- Payments have been issued to date for \$3,850,522.93. The authorized budget with administrative reserve is \$4,338,497.48
- An additional \$300,000 is being requested to complete the project

Budget Impact:

Approved in current year budget? Annual/Reoccurring expenditure?	Yes No N/A Yes No N/A
Other budget impacts: (revenue genera	ting, match requirements, etc.)
Operations Impact:	
Consistent with current operations/poli	cy? Yes 🔲 No 🛄 N/A
Requires change in current operations/	policy? 🛛 Yes 🔲 No 🔲 N/A
Specify changes required:	
Known challenges/barriers:	

PIES Committee

Division & Department:	Engineering Services		
Subject:	Sunset Blvd. – Royal to Lindeke Administrative Reserve Increase		
Date:	2/6/19		
Contact (email & phone):	Joel Graff, jgraff@spokanecity.org, 625-7757		
City Council Sponsor:			
Executive Sponsor:	Scott Simmons		
Committee(s) Impacted:	PIES		
Type of Agenda item:	Consent 🔲 Discussion 🔲 Strategic Initiative		
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget, Comp Plan, Policy, Charter, Strategic Plan)			
Strategic Initiative:			
Deadline:			
Outcome: (deliverables, delivery duties, milestones to meet)	For council consideration. Request will be forwarded to the council agenda for approval.		
Background/History:			
• Engineering Project #2014094 – Sunset Blvd. from Royal to Lindeke is a street project in the West Hills neighborhood. As part of this project a new 2,200 foot storm system was required to remove storm water from the existing sewer system. The planned alignment of the storm system			

was behind the curb and adjacent to the street. During construction several linear utility conflicts were found in the planned alignment of the new storm system, two existing sewer mains and two existing fiber optic duct banks.

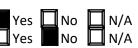
- Due to these utility conflicts the alignment of the new storm system was changed. The only location available for the new alignment of the storm system was 3 feet deeper and 10 feet south of the planned alignment and in the paved street. The costs associated with the unplanned over excavation, pavement removal, pavement patching, and additional traffic control to change the alignment of the storm sewer is approximately \$320,000.
- The projects remaining admin reserve can cover most, but not all of this work. Engineering Services is requesting an additional \$150,000 to complete the project and retain some reserve.

Executive Summary:

- Due to numerous existing utility conflicts the alignment of the new storm water system was changed. The only available location for the storm water pipe was 3 feet deeper and 10 feet south of the planned alignment. This new storm pipe location created project overruns on excavation, pavement removal, pavement patching, and traffic control totaling approximately \$320,000.
- Payments have been issued to date for \$3,477,922.83. The authorized budget with administrative reserve is \$4,704,071.80.
- An additional \$150,000 is being requested to complete the project

Budget Impact:

Approved in current year budget? Annual/Reoccurring expenditure? If new, specify funding source:



Other budget impacts: (revenue generating, match requirements, etc.)

Operations Impact:

Consistent with current operations/policy? Requires change in current operations/policy? Specify changes required:



Known challenges/barriers:

PIES Committee

Division & Department:	Engineering Services
Subject:	Sprague-Sherman Plaza Administrative Reserve Increase
Date:	3/25/19
Contact (email & phone):	Joel Graff, jgraff@spokanecity.org, 625-7757
City Council Sponsor:	
Executive Sponsor:	Scott Simmons
Committee(s) Impacted:	PIES
Type of Agenda item:	Consent Discussion Strategic Initiative
Alignment : (link agenda item to guiding document – i.e., Master Plan, Budget, Comp Plan, Policy, Charter, Strategic Plan)	
Strategic Initiative:	
Deadline:	
Outcome: (deliverables, delivery duties, milestones to meet)	For council consideration. Request will be forwarded to the council agenda for approval.
Background/History:	
 Central neighborhood that Bridge to the Sprague-Sher To date the project is approved to the solid rock excavation. Construction 	oximately 50% complete and has encountered a significant overrun in struction Management is estimating the solid rock excavation overrun 0 upon completion of the project and could potentially exhaust the

• Engineering Services is requesting an additional \$70,000 to cover the solid rock excavation overrun and preserve the authorized administrative reserve to cover other issues that may arise prior to project completion.

Executive Summary:

- Construction Management is estimating the solid rock removal overrun could be as high as \$70,000 upon completion of the project.
- Payments have been issued to date for \$388,152.43. The authorized budget with administrative reserve is \$819,690.19
- An additional \$70,000 is being requested to cover the cost of the overrun and preserve the existing administrative reserve.

Budget Impact:	
Approved in current year budget?	Yes 🔲 No 🛄 N/A
Annual/Reoccurring expenditure?	🗌 Yes 📕 No 🛄 N/A
If new, specify funding source:	
Other budget impacts: (revenue generating, match requirements, etc.)	

Operations Impact: Consistent with current operations/policy? Requires change in current operations/policy? Specify changes required: Known challenges/barriers:



Public Infrastructure, Environment and Sustainability Committee

Division & Department:	Public Works Division; Solid Waste Disposal	
Subject:	Contract Amendment for Scaffolding Services at Waste to Energy	
Date:	March 25, 2019	
Contact (email & phone):	David Paine, <u>dpaine@spokanecity.org</u> , 625-6878	
City Council Sponsor:		
Executive Sponsor:		
Committee(s) Impacted:	Public Infrastructure, Environment and Sustainability Committee	
Type of Agenda item:	Consent Discussion Strategic Initiative	
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)		
Strategic Initiative:	Innovative Infrastructure-Sustainability of the WTEF Operation	
Deadline:		
Outcome: (deliverables, delivery duties, milestones to meet) Background/History:	Council approval for additional funds to be added to the contract for scaffolding services at the WTE.	
During scheduled and emergency outages at the WTEF, scaffolding must be placed in the boilers to allow safe access for repairs. Bids for scaffolding services for the WTE were solicited under RFB 4308- 16 and Safway Services, LLC, was awarded the contract and provided this service in 2018. The contract for these services was just renewed for an additional \$350,000.00 running from April 1, 2019 through March 31, 2020. However, unexpected boiler failures in 2018 combined with already scheduled work in February of 2019 are requiring an additional \$60,000.00 for work done in the current contract term running from April 1, 2018 through March 31, 2019.		
 <u>Executive Summary:</u> Amendment with cost to contract with Safway Services, LLC., for an additional \$60,000.00. Contract was for \$300,000.00 from April 1, 2018 through March 31, 2019. An amendment for an additional \$120,000.00 was done in November of 2018. Total cost of contract with amendments for 2018-2019 term will be \$480,000.00 total. Additional funds needed due to unexpected boiler failures, resulting in emergency outages, combined with the already scheduled outages. 		
Budget Impact: Approved in current year budget? Yes No N/A Annual/Reoccurring expenditure? Yes No N/A If new, specify funding source: Other budget impacts: (revenue generating, match requirements, etc.) Operations Impact: Consistent with current operations/policy? Yes No N/A Requires change in current operations/policy? Yes No N/A Specify changes required: Known challenges/barriers: Known challenges/barriers:		

Public Infrastructure, Environment & Sustainability Committee

Division & Department:	Street Department	
Subject:	Approval of a 1-year Value Blanket Order for Preformed	
	Thermoplastic products, from Flint Trading Inc., Greensboro, N.C., using City of Spokane Quote #783-19 not to exceed \$85,000.00.	
Date:		
Contact (email & phone):	Gary Kaesemeyer (gkaesemayer@spokanecity.org X8810)	
City Council Sponsor:		
Executive Sponsor:	Scott Simmons	
Committee(s) Impacted:	PIES	
Type of Agenda item:	Consent Discussion Strategic Initiative	
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	Strategic Plan	
Strategic Initiative:		
Deadline:		
Outcome: (deliverables, delivery duties, milestones to meet)	Maintain infrastructure.	
Background/History: The Street Department worked with the Purchasing Department in producing a Request For Quote (#783-19); which was awarded to Flint Trading Inc. There are up to four (4) one-year optional renewal periods.		
Executive Summary: The Signs and Markers Section is responsible for the maintenance of 557 marked crossings, 432 stop bars, and 487 roadway stencils, in thermoplastic, each year. The installation and maintenance of the combined 1476 thermoplastic markings is part of Street Department's annual tasks. Roadway markings provide important information to all roadway users while allowing minimal diversion of attention from the roadway. Thermoplastic installation and maintenance costs are greater than that of painted markings. Paint only last about one year whereas the estimated lifespan of thermoplastic is 3 to 5 years; this adds to year-round visibility for the roadway users, reduces exposure for workers in the roadway and allows workers to accomplish more signing and striping tasks on an annual basis.		
Budget Impact: Approved in current year budget? Yes No N/A Annual/Reoccurring expenditure? Yes No N/A If new, specify funding source: Other budget impacts: (revenue generating, match requirements, etc.)		
Operations Impact: Consistent with current operations/policy? Xes No N/A Requires change in current operations/policy? Yes No N/A Specify changes required: Known challenges/barriers:		

Public Infrastructure, Environment & Sustainability Committee

Division & Department:	Street Department	
Subject:	Approval of a 1-year Value Blanket Order for Perforated Square Steel Tube (traffic sign posts), from Traffic Safety Supply Co., Portland, OR, using City of Spokane Quote #781-19, not to exceed \$60,000.00.	
Date:		
Contact (email & phone):	Gary Kaesemeyer (gkaesemayer@spokanecity.org X8810)	
City Council Sponsor:		
Executive Sponsor:	Scott Simmons	
Committee(s) Impacted:	PIES	
Type of Agenda item:	Consent Discussion Strategic Initiative	
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	Strategic Plan	
Strategic Initiative:		
Deadline:		
Outcome: (deliverables, delivery duties, milestones to meet)	Maintain infrastructure.	
Background/History: The Street Department worked with the Purchasing Department in producing a Request For Quote (#781-19); which was awarded to Traffic Safety Supply Co. These devices have been approved as crashworthy break away sign post, meeting FHWA's 1993 NCHRP 350 Report. There are up to four (4) one-year optional renewal periods.		
<u>Executive Summary:</u> The Signs and Markers Section is responsible for installation, maintenance and timely replacement of traffic signing that has become worn out, damaged or removed. Signs and Markers performs over 10,000 maintenance functions each year. The production, installation and maintenance of the 91,042 traffic signs is part of Street Department's Signs and Markers annual tasks.		
Budget Impact: Approved in current year budget? Yes No N/A Annual/Reoccurring expenditure? Yes No N/A If new, specify funding source: Other budget impacts: (revenue generating, match requirements, etc.) Operations Impact: Consistent with current operations/policy? Yes No N/A Requires change in current operations/policy? Yes No N/A Specify changes required:		
Known challenges/barriers:		

Public Infrastructure, Environment & Sustainability Committee

Division & Department:	Street Department		
Subject:	Approval of a 1-year Value Blanket Order for aluminum Sign Blanks, from National Barricade and Sign Co., Spokane, WA, using City of Spokane Quote #778-19, not to exceed \$80,000.00.		
Date:			
Contact (email & phone):	Gary Kaesemeyer (gkaesemayer@spokanecity.org X8810)		
City Council Sponsor:			
Executive Sponsor:	Scott Simmons		
Committee(s) Impacted:	PIES		
Type of Agenda item:	Consent Discussion Strategic Initiative		
Alignment:	Strategic Plan		
Strategic Initiative:			
Deadline:	Previous Value Blanket expired May 1 st , 2018.		
Outcome: (deliverables, delivery duties, milestones to meet)	Maintain infrastructure.		
Background/History:			
The Street Department worked with the Purchasing Department in producing a Request For Quote (#778-19); which was awarded to National Barricade and Sign Co. The initial contract will be for one (1) year. There are up to four (4) one-year optional renewal periods.			
<u>Executive Summary:</u> The Signs and Markers Section is responsible for installation, maintenance and timely replacement of traffic signing that has become worn out or damaged. Signs and Markers manufactures over 4,000 traffic signs each year. The production, installation and maintenance of the 91,042 traffic signs is part of Street Department's Signs and Markers annual tasks.			
Budget Impact: Approved in current year budget? Yes No Annual/Reoccurring expenditure? Yes No N/A If new, specify funding source: Other budget impacts: (revenue generating, match requirements, etc.) Operations Impact: Consistent with current operations/policy? Yes No N/A Requires change in current operations/policy? Yes No N/A Specify changes required: Known challenges/barriers:			

Briefing Paper (PIES)

Division & Department:	Street		
Subject:	Nuvo Gap B Product from Specialty Asphalt		
Date:	3/25/2019		
Contact (email & phone):	rhowerton@spokanecity.org / 625-7741		
City Council Sponsor:			
Executive Sponsor:	Scott Simmons		
Committee(s) Impacted:			
Type of Agenda item:	X Consent Discussion Strategic Initiative		
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	Strategic Plan		
Strategic Initiative:	Infrastructure		
Deadline:			
Outcome: (deliverables, delivery duties, milestones to meet)			
Background/History: Nuvo Gap is the crack sealing material that is used on the wider and deeper cracks found on the residential streets. It cost \$0.78 per pound and we plan to use about 90,000 pounds of this material not to exceed \$80,000.			
Executive Summary:			
 Impact We started a residential crack sealing program in 2012 to preserve residential streets and extend their life cycle as part of the Transportation Benefit District (TBD) program. In 2013 we started using Nuvo Gap in deep wide cracks (1 inch and wider) to aid in the drivability and smoothness of streets and preservation and extension of the life cycle of these streets. We will be able to fill approximately 200,000 lineal feet of crack using this product. 			
Action			
• Approve this value blanket for NUVO GAP using state contract #01211, on "as needed" bases. Funding			
• Funding for this is included in the 2019 street operation and maintenance budget.			
Budget Impact: Approved in current year budget? Yes Annual/Reoccurring expenditure? Yes No N/A If new, specify funding source: Other budget impacts: (revenue generating, match requirements, etc.)			
Operations Impact: Consistent with current operations/policy? Requires change in current operations/policy? Specify changes required: Known challenges/barriers:			

Briefing Paper (PIES)

Division & Department:	Street		
Subject:	SA Premier hot-pour rubberized sealant from Specialty Asphalt		
Date:	3/25/2019		
Contact (email & phone):	rhowerton@spokanecity.org / 625-7741		
City Council Sponsor:			
Executive Sponsor:	Scott Simmons		
Committee(s) Impacted:			
Type of Agenda item:	x Consent Discussion Strategic Initiative		
Alignment : (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	Strategic Plan		
Strategic Initiative:	Infrastructure		
Deadline:			
Outcome: (deliverables, delivery duties, milestones to meet)			
Background/History: SA Premier hot-pour rubberized crack sealant is used to crack seal streets on an approximate five year cycle. We plan to use about 144,000 lbs. on both the arterial and residential streets this year. The SA Premier Rubberized Crack Sealant cost is \$0.834 per pound and is on State Contract #01211, not to exceed \$115,000.			
Executive Summary:			
 Impact The Street Department started a maintenance crack seal program in 2003 on arterial streets. The residential crack seal program started in 2012 as part of the Transportation Benefit District (TBD) funding. Crack sealing the life of pavement by reducing the amount of moisture that infiltrates the subgrade, which reduces the impacts of the freeze/thaw cycles during winter months. We plan to crack seal approximately 500,000 linear feet in 2019. 			
Action			
 Approval of a one year blanket order for SA Premier using State Contract #01211, on an "as needed" basis. 			
Funding			
Funding for this is included in the 2019 Street Operation and Maintenance Budget. Budget Impact:			
Approved in current year budget? Annual/Reoccurring expenditure? If new, specify funding source: Other budget impacts: (revenue generating, match requirements, etc.)			
Operations Impact:			
Consistent with current operations/policy?			
Requires change in current ope	erations/policy? 🔲 Yes 🔳 No 🔲 N/A		
Specify changes required:			
Known challenges/barriers:			

Briefing Paper (PIES)

Division & Department:	Street	
Subject:	Asphalt Mixes	
Date:	3/25/2019	
Contact (email & phone):	rhowerton@spokanecity.org / 625-7741	
City Council Sponsor:		
Executive Sponsor:	Scott Simmons	
Committee(s) Impacted:		
Type of Agenda item:	X Consent Discussion Strategic Initiative	
Alignment : (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	Strategic Plan	
Strategic Initiative:	Infrastructure	
Deadline:		
Outcome: (deliverables, delivery duties, milestones to meet)		
This material is used by the Street Department, Parks Department, Sewer Maintenance and Water Department. The City of Spokane Purchasing Department requested bids in 2014 (Bid # 2014-14) from the major asphalt producers in the region. This is the fourth (4th ^d) of (4) optional one-year renewals. The estimated annual cost for all departments is \$1,925,000.		
Executive Summary:		
 Impact The Street Department plans to grind and overlay approximately 15 lane miles of arterial streets, along with patching sewer and water cuts for the City Utilities. 		
 Action Approve the use of Annual Blanket Orders for Asphalt Mixes from both Inland and Shamrock Paving. 		
 This has been programmed in to the Department's 2019 budget. 		
Budget Impact: Approved in current year budget? Annual/Reoccurring expenditure? Yes No Yes No N/A If new, specify funding source: Other budget impacts: (revenue generating, match requirements, etc.)		
Operations Impact: Consistent with current operat Requires change in current ope Specify changes required: Known challenges/barriers:	ions/policy?	

Public Infrastructure, Environment, and Sustainability

Division & Department:	Public Works & Integrated Capital Management		
Subject:	Bureau of Reclamation (BOR) Drought Response Water Grant Application		
Date:	03/25/2019		
Author (email & phone):	mpapich@spokanecity.org & 625-6310		
City Council Sponsor:			
Executive Sponsor:	Scott Simmons		
Committee(s) Impacted:	PIES		
Type of Agenda item:	Consent Discussion Strategic Initiative		
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	2018-2023 Six Year Citywide Capital Improvement Program. Ordinance No. C35560 adopted the program and gives staff authorization to seek funding.		
Strategic Initiative:			
Deadline:			
Outcome: (deliverables, delivery duties, milestones to meet)	Approve the resolution to apply for Drought Response grant funding for the Ray Street Well Update project.		
Council's support of the grant application. The Bureau of Reclamation (BOR) is offering grant funding for projects that will build long term resiliency to drought. This is a competitive application process and funding will be awarded to those projects demonstrating the highest level of drought resiliency. The program will offer a maximum of \$750,000 that requires a 50% non-federal match. Integrated Capital Management Department has identified projects from the 2019 through 2024 Six-year Citywide Capital Improvement Program Water Program that meets the funding timeline and will be both eligible and competitive for the grants.			
 <u>Executive Summary:</u> Resolution approval for BOR grant application. The Ray Street Well Upgrade project is listed in the approved 2019 through 2024 Six-year Citywide Capital Improvement Program 			
Budget Impact: Approved in current year budget? Yes No Annual/Reoccurring expenditure? Yes No If new, specify funding source: Other budget impacts: (revenue generating, match requirements, etc.) The 50% match requirement of the grant is programmed through the utilities capital fund.			
Operations Impact:Consistent with current operations/policy?Requires change in current operations/policy?YesNoSpecify changes required:Known challenges/barriers:			

(Public Infrastructure, Environment, & Sustainability Committee)

Division & Department:	Public Works Division / Integrated Capital Management		
Subject:	2019 Bridge Grant Opportunities		
Date:	3/25/19		
Contact (email & phone):	bblankenagel@spokanecity.org		
City Council Sponsor:			
Executive Sponsor:			
Committee(s) Impacted:			
Type of Agenda item:	Consent Discussion Strategic Initiative		
Alignment: (link agenda item to guiding document – i.e., Master Plan, Budget , Comp Plan, Policy, Charter, Strategic Plan)	Transportation		
Strategic Initiative:	Improving Streets		
Deadline:	April 26, 2019		
Outcome: (deliverables, delivery duties, milestones to meet)	Approve the list of projects for bridge grant applications in 2019		
Background/History:			
 WSDOT has announced a Call for Projects for bridge funding. The City of Spokane has several eligible candidate bridges. This federal bridge program has \$75 million available for projects across the state. The City is preparing grant applications for the following projects: Howard Street Mid-Channel Bridge – replacement truss, re-painting Chestnut Street Bridge – scour rehabilitation Maple Street Bridge – deck rehabilitation, re-painting Washington St. Bridge (south) – deck rehabilitation Stevens St. Bridge (north) – deck rehabilitation 			
 <u>Executive Summary:</u> Grant applications for city bridges will be submitted in April. 			
Budget Impact: Approved in current year budget? Annual/Reoccurring expenditure? Yes No If new, specify funding source: Other budget impacts: Match requirement for most of the grant programs. Match will be programmed through the arterial street fund, and will be updated in the 6-Year Street Program			
Operations Impact:Consistent with current operations/policy?Requires change in current operations/policy?YesNoSpecify changes required:Known challenges/barriers:			

Presentations

City of Spokane Greenhouse Gas (GHG) Emissions Inventory Project



Overview

Introduction to City GHG emissions inventory project

- Brief history of City GHG emissions inventories and purpose of the 2016 GHG emissions inventory
- City-University partnership and EPIC model

Student presentations

- Setting the **inventory boundaries**
- Local government operations inventory and
- Community-wide inventory

Introduction

Cities, Energy Consumption, and GHG Emissions

Cities consume over 2/3 of world's energy and account for over 70% of global energy-related GHG emissions

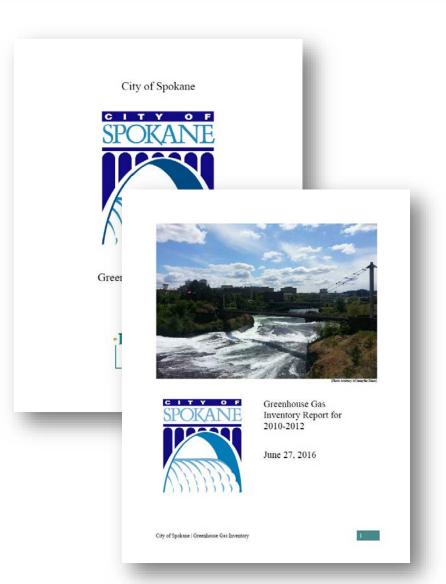
Cities and **local governments** are also unique positioned to take a **leadership role** in promoting sustainable development and curbing GHG emissions





City of Spokane and GHG Emissions Inventories

Previous inventories published in 2009 and **2016**, accounted for GHG emissions from local government operations and community-wide activities in the 1990, 2005, 2010, & 2012 inventory years



Purpose of the 2016 GHG Emissions Inventory

The primary **purpose** of this inventory was to **build upon past inventories** by:

- Calculating and publishing updated local government operations and community-scale
 GHG emissions inventories using the most recent data and latest inventory protocols and
- Leveraging largely untapped university resources to streamline the time it takes to address a real community need through applied learning experiences and workforce training

City of Spokane-Gonzaga University Partnership and the EPIC Model





)NZAGA

School of Engineering & Applied Science City of Spokane-Gonzaga University partnership assigned interdisciplinary team of engineering and environmental studies students (under the direction of the PI) to complete the updated inventories over 2018-2019 academic year as part of a senior capstone project

Setting the Inventory Boundary

Inventory Boundaries and Year

Local Government Operations Inventory

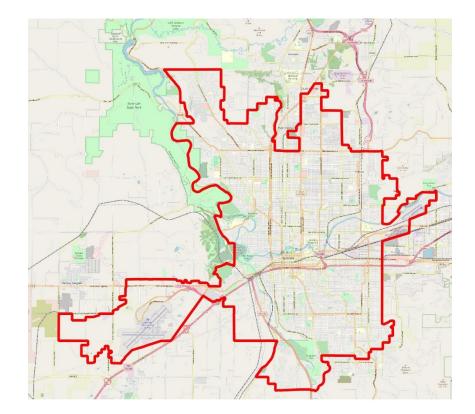
 Accounts for GHG emissions from City of Spokane operations

Community-Scale Inventory

 Accounts for GHG emissions from activities within the municipal boundary

Inventory Year

 Used 2016 due to the availability and accuracy of activity data



GHG Emissions Calculation Methodology

To calculate total emissions in units of metric tons of CO₂e, **activity data (AD)** from each source is multiplied by a corresponding **emission factor (EF)**

 CO_2e Emissions = (AD x EF)

GHGs Included



Inventories account for emissions of **several GHGs**, including:

- Carbon dioxide (CO_2) ,
- Methane (CH₄),
- Nitrous oxide (N_2O) ,
- Hydrofluorocarbons (HFCs),
- Perfluorocarbons (PFCs), and
- Sulfur hexafluoride (SF $_6$)

GHG Emissions Sectors Included (by Inventory Type)

Local Government Sectors

- Buildings and other facilities
- Streetlights and traffic signals
- Water delivery facilities
- Wastewater facilities
- Airport facilities
- Vehicle fleets
- Power generation facilities
- Solid waste facilities
- Other scope 3

Community-Scale Sectors

- Stationary energy
- Transportation
- Waste
- Industrial processes and product use
- Agriculture, forestry, and other land use

Local Government Operations GHG Emissions Inventory

Buildings and Other Facilities

Data for **electricity use** and **natural gas consumption** provided by the City of Spokane

Avista Utilities provided emissions factors for CO₂e calculations

Buildings and other facilities account for 8% of all LGO emissions



Streetlights and Traffic Signals



Year	Electricity Used (MWh)	CO ₂ e from Electricity (MT CO ₂ e)
2016	8,242	2,423
2018	2,016	593

Calculated using same methodology as "Buildings and other facilities" sector

Recent 80% reduction between 2016 and 2018 due to efficient street lighting improvements

Vehicle Fleet

Information on **fuel use** and **fleet vehicles** was easy to access and use in calculations

Digging into the details (e.g., **electric vehicle** use) was more of a challenge

Commute and **employee travel** data requires better understanding of employee habits and behaviors



Community-Wide GHG Emissions Inventory

Stationary Energy

Challenges of **data collection** prior to emissions calculations, including:

- Time required
- Data from multiple sources
- Modeling emissions



Transportation



Not as simple as measuring emissions from tailpipes, as it is difficult to account for **moving emissions sources**

Scale of available data was often larger than inventory boundary

Approximately **47.3%** of total community-wide emissions come from **transportation sector**

Agriculture, Forestry, and Other Land Use (AFOLU)

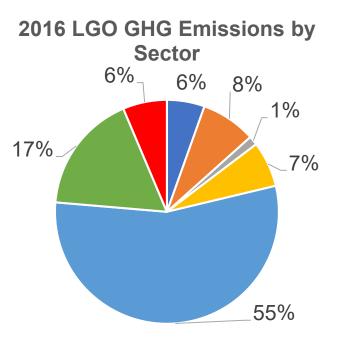
Developed **new methods** for modeling emissions using spatial (**GIS**) land use data

Learned to work with the **complexities** of integrating data from multiple sources

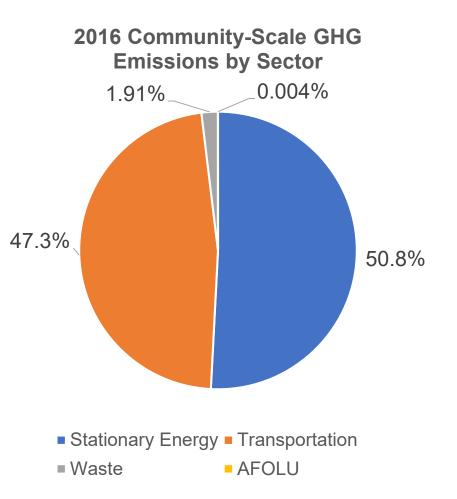


Summary

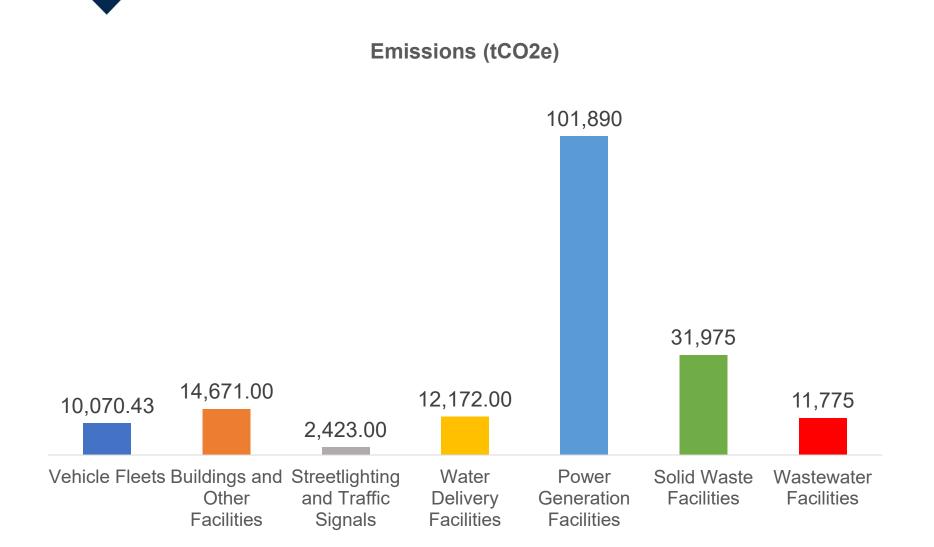
Preliminary Summary of GHG Emissions by Sector



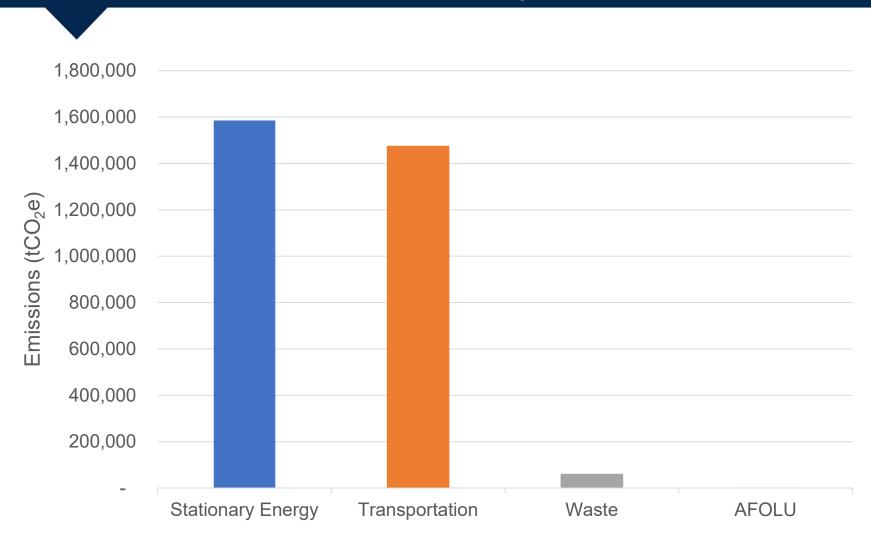
- Vehicle Fleets
- Buildings and Other Facilities
- Streetlighting and Traffic Signals
- Water Delivery Facilities
- Power Generation Facilities
- Solid Waste Facilities
- Wastewater Facilities



Preliminary Summary of LGO GHG Emissions by Sector



Preliminary Summary of Community-Wide GHG Emissions by Sector



Team and Contact Information

Student Team

- Chelsey Hand
- Wesley Davis
- Jena Jadallah
- Austin Kaesemeyer
- Frederick Winter
- Luke Schumm
- Dawson Matthews

Principle Investigator

 Dr. J. Alexander Maxwell (maxwell@gonzaga.edu)



References

California Air Resources Board. (2010). Local Government Operations Protocol: For the quantification and reporting of greenhouse gas emissions inventories. Los Angeles, CA: The Climate Registry.

City of Spokane. (2009). 1990 & 2005 Greenhouse Gas Inventory. Spokane.

City of Spokane. (2016). *Greenhouse Gas Inventory Report for 2010-2012*. Spokane.

World Resources Institute. (2014). Global Protocol for Community-Scale Greenhouse Gas Emission Inventories: An Accounting and Reporting Standard for Cities. New York, NY: World Resources Institute.

Additional Reference Slides

Overview of Calculating GHG Emissions

Activity Data







Emissions Factors

Quantitative measure of the mass of GHG emissions associated with specific activities



Activity Data	Emission Factor
Electricity Use	648 lb CO ₂ e/MWh
Land converted to Settlements	9.4 MT CO ₂ e/hectare
Jet Fuel Usage	0.0098 MT CO ₂ e/gallon
Passenger Car	0.00047 MT CO ₂ e/mile



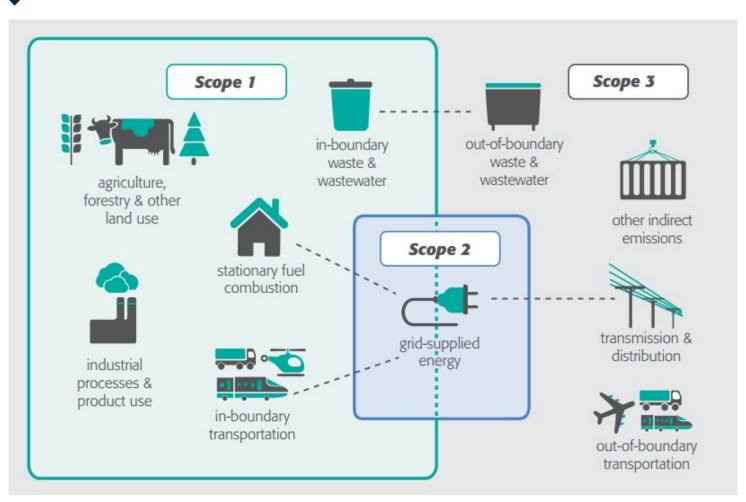
GHG Emissions Calculation Methodology

To calculate total emissions in units of metric tons of CO₂e, **activity data (AD)** from each source is multiplied by a corresponding **emission factor (EF)**

 CO_2e Emissions = (AD x EF)

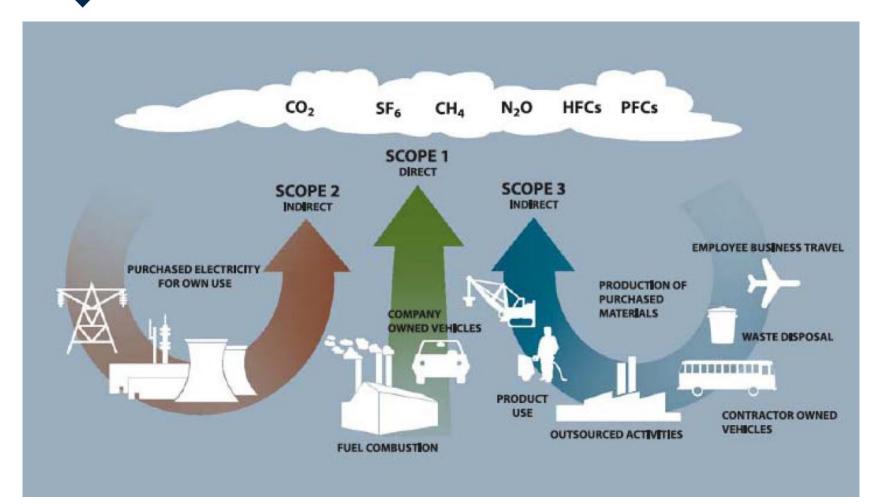
GHG Emissions Scopes

Community-Scale GHG Emissions Scopes



(World Resources Institute, 2014, p. 32)

LGO GHG Emissions Scopes



(California Air Resources Board, 2010, p. 23)

Street Department

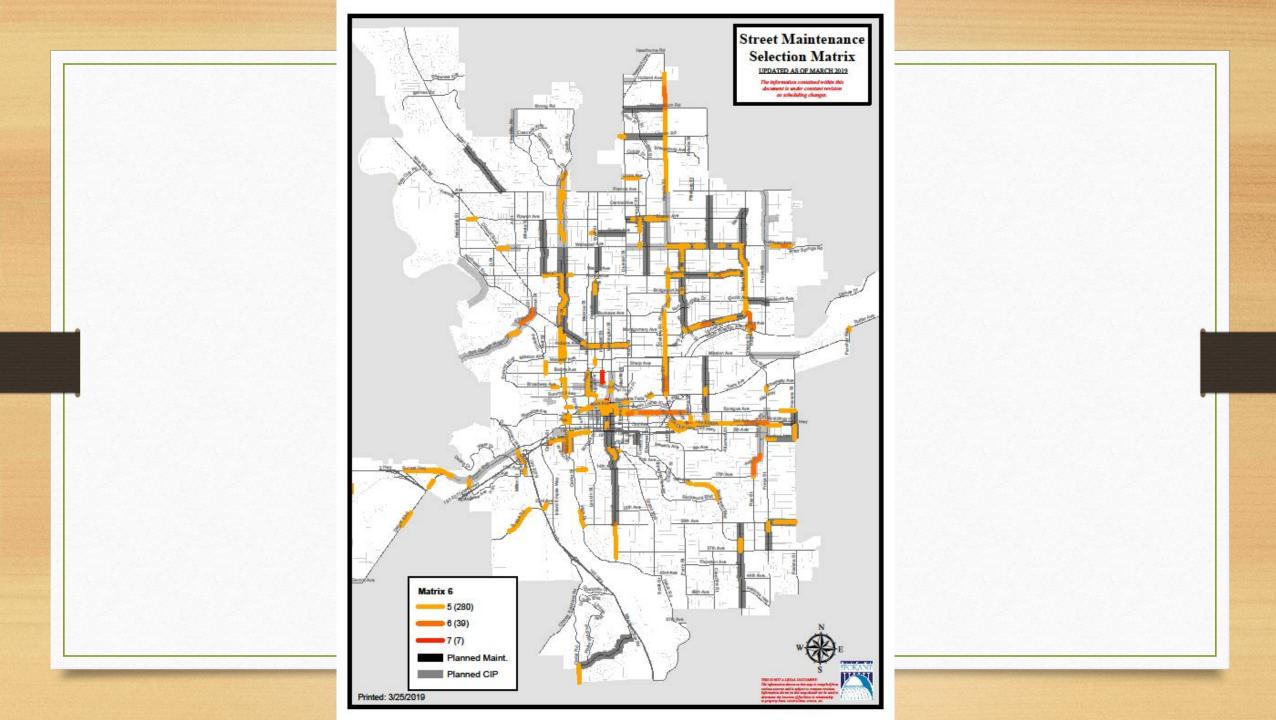
Pavement Rating Matrix

Matrix Assumptions

Latest Matrix Calculation Includes:

- Bus route
- Bike lane
- Truck Route
- PCI Value
- Traffic Count Value
- Age
- Previous Bond







Riverside Avenue Survey Results Public Infrastructure & ES March 25, 2019



and been and a start of and and the start of a start of a start of a start for a start of a start of the star

PROJECT CONCEPT – Decisions to Date



The project will include the following:

- Street reconstruction Remove & replace pavement
- Utilities Water and stormwater updates
- Sidewalk vaults Replacement and infill as appropriate
- Travel lanes From 4 lanes to 3, sizing to existing and forecasted traffic levels
- **Bike facility** Continue building the city bicycle network



under son and and a far the set of the stand and the standard and the standard the standard and the

Should cycle tracks be tested first?

- Construction of the project will happen in segments separated potentially by multiple years. This allows an opportunity to test a segment with cycle tracks for a time before building the rest of the corridor.
- The first segment, including cycle tracks, will be from Division Street to Washington Street. Re-striping of travel lanes from Washington to Monroe will also be changed at that time. Temporary cycle tracks or bike lanes could be built with the re-striping.



PARKING POTENTIAL



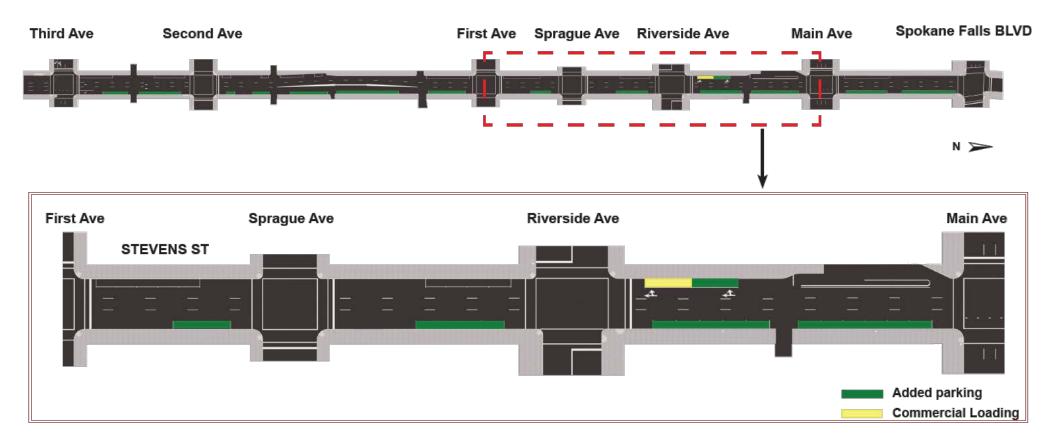
Riverside Avenue with the CCL will have about 117 parallel parking spaces. Construction will re-work the curb line such that parallel parking can be increased to about 125 spaces.

A balanced use of angled parking could yield about 130 spaces Maximizing the use of angled parking could provide about 144 spaces



and the second second and the state of the s

PARKING POTENTIAL - Stevens Street Revisions



The Downtown Spokane Partnership requested the City look at Stevens Street to be reconfigured to increase parking. This re-stripe to 3 lanes would add up to 50 new parking spaces, and could be included in the Riverside work, if not earlier.



Survey



- Online Public Survey (211 Responses)
- Certified Mailing Survey of Business and Property Owners (96 Responses)



and the second second and an a second second and the standard and the second and and the second second second

Survey Questions



- .. Angled parking requires more roadway space than parallel parking, and would require removal of the center turn lane. Several intersections and driveways on Riverside depend on the left-turn lane to keep thru-traffic moving. How would you prefer to balance on-street angled parking with traffic flow?
- 2. Do you support this Riverside Avenue Project



Survey Results



	Business Property	1. How would you prefer to balance on-street angled (1) and parking with traffic flow?
Public	Owners	
17%	9%	 Maximize angled parking, recognizing there will be impacts to traffic flow.
55%	58%	 Use angled parking between Browne and Bernard (balanced approach), and keep turn lanes at critical
28%	33%	 intersections. Do not use angled parking, as traffic flow should not be impacted.





VEHICLE NETWORK – Critical Left Turns



A balanced approach to angled parking would maintain critical left-turn movements with fewer angled parking areas.

Survey Results



Public	Business Property Owners	2.	Do you support this Riverside Avenue Project
75%	64%	•	Yes
11%	36%	٠	No



and the second of the Annal of Bearing and a water bearing to a still to mark the Andrew Bearing to a second and

Decision Matrix



Decision Matrix - Riverside Avenue from Monroe to Division

	Weight of decision					
Γ	Percent YES	Percent NO		Weighted YES	Weighted NO	
Planning Documents			42			
Comp Plan/Matrix	83%	17%	32	26.56	5.44	
Fast Forward Spokane	85%	15%	5	4.25	0.75	
Downtown Parking Plan	75%	25%	5	3.75	1.25	
		•				
Feedback			42			
Riverside Neighborhood Residents	87%	13%	15	13.05	1.95	
Property and Business Owners	64%	36%	15	9.6	5.4	
Adjacent Neighborhoods	79%	11%	8	6.32	0.88	
Rest of City Neighborhoods and outside of						
City (if collected)	71%	12%	4	2.84	0.48	
					• 0.00.00.0	
Matrix: Existing Conditions	90%	10%	10	9	1	

94.0

17.2

75.4

*Score of 60 or more for "Weighted YES" to move forward with design.



Next Steps

Resolution:

 Accept the scoping of the "Riverside Avenue – Monroe St. to Division St." project, as determined through the use of the Decision Matrix tool.



under som en te ander ander ander ander ander ander ander ander ander and the set of the

Spokane Unpaved Streets





Not all unpaved streets are created equal





Not all unpaved streets are created equal





Approach and selection greatly affect cost

- Rock
- Trees
- Drainage
- Structures
- Driveways
- Utilities
- Adjacent facilities/tie in
- Private Property Encroachments/Improvements



Cost effective approach

- Strip pave 24'
- Two travel lanes, allow some raveling at edges due to lack of curbs
- Paved driveway aprons
- Shallow V ditch for drainage
- No structures/utilities
- Minimal tree removals or rock ex
- No drainage issues



Easy Street – Strip pave

280' street length \$115,000 3" HMA 4" Crushed Rock 6'Drainage 24' Pavement 6'Drainage Ditch Ditch







Easy Street – Complete street





Challenging Street – partial complete street with sidewalks & on-street parking





More examples – easy streets





More examples – easy streets





More examples – easy streets

46th & Cook





















More examples – difficult streets





More examples – difficult streets





Recommended Guidelines for Selection

- Strip pave 24'
- Minimal sloping (inc. driveway approaches)
- No structures/utilities
 - Needed or needing replacement
- Minimal tree removals or rock ex
- No drainage issues
- No private property encroachments



Genapidata @2019 Go

Thank you!



NPDES Permit: Path Forward

March 2019



Overview: Path to a New Permit



Water Quality Standards Change

Revised numeric limit for PCBs is unmeasurable and unachievable

City collaborates with Ecology, municipal dischargers to find a solution New Permit must help achieve City goals

> Maintain Community Affordability

Remain in compliance with regulations

Protect Water Quality

Provide some certainty for operations

"Variance" recommended path forward

Recognizes significant investment made by our citizens

Requires continued work toward PCB reduction

Includes periodic reviews of available technology

How we got here





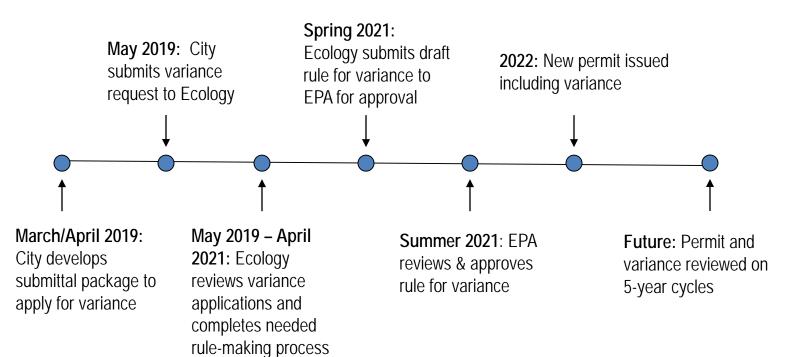
PCB Water Quality Standard

- Ecology limit was 170 ppq
 - EPA limit is 7 ppq

Other Options Considered:

- Compliance Schedule
- Narrative Limit for PCBs
- A Presumption of Compliance





Variances





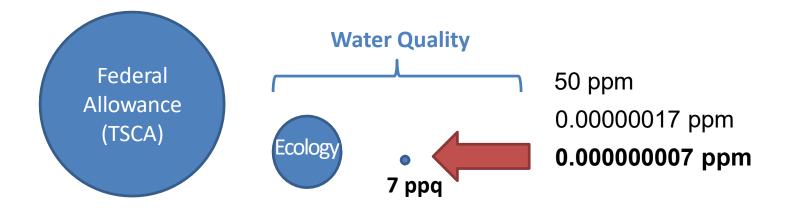


- Ecology recommends a variance for PCB standard
 - For City and other municipal dischargers
 - Technology doesn't exist to measure or achieve the standard
 - Ecology believes this option is most protective of water quality
- Lots of work ahead
 - Ecology has never issued a variance
 - City must submit a package of information
 - City will estimate results of NLT
 - Ecology will review & go through rule-making process
 - EPA also will need to approve



Magnitude Difference

What Are PCB Limits?

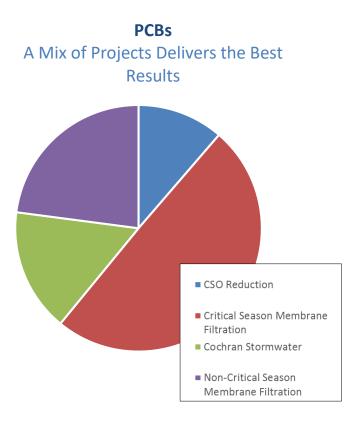


TSCA compared to new EPA Water Quality Standard

Magnitude Difference = <u>7 Billion</u>

Integrated Plan Gets Results!



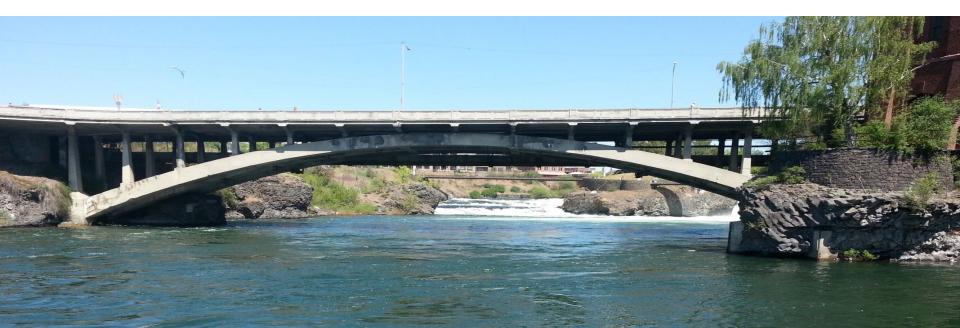


- 3 components:
 - CSO: Manage flows going to River from combined sewers
 - Stormwater: Include
 Cochran Basin project
 - NLT: Add tertiary treatment at Treatment
 Plant



\$350 M in construction

City sold \$200 M in "green" bonds in 2014 Payments continue until 2034 Also \$85 M in SRF loans \$4,000 cost per household Limited rate increases to 2.9% annually



Committed to:

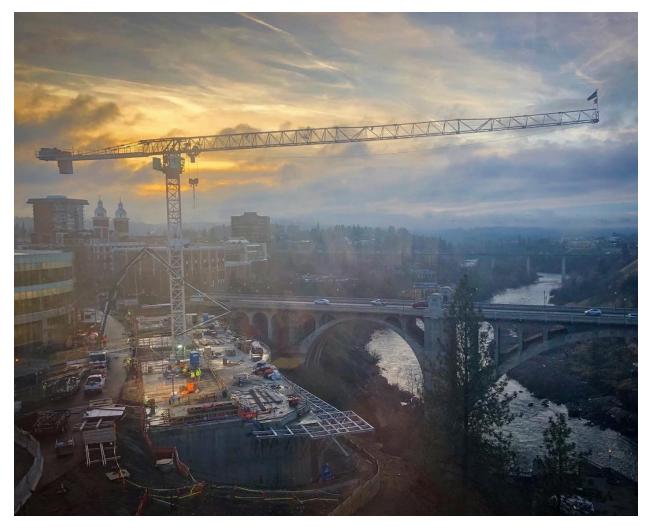
- Regulatory Compliance
- Responsible Stewardship of Natural Assets
- Affordable Utility Services for Citizens

Variance allows us to:

- Maintain our commitments
- Seek new & innovative solutions







Questions?