



CITY COUNCIL REGULAR MEETING AGENDA
Monday, August 21, 2017, 7:00 PM
City Hall, 616 NE 4th Avenue

NOTE: There are two public comment periods included on the agenda. Anyone wishing to address the City Council may come forward when invited; please state your name and address. Public comments are typically limited to three minutes, and written comments may be submitted to the City Clerk. Special instructions for public comments will be provided at the meeting if a public hearing or quasi-judicial matter is scheduled on the agenda.

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. ROLL CALL

IV. PUBLIC COMMENTS

V. CONSENT AGENDA

- A. Approve the minutes of the August 7, 2017, Camas City Council Meeting and the Workshop minutes of August 7, 2017.

 [August 7, 2017 Camas City Council Regular Meeting Minutes - Draft](#)
[August 7, 2017 Camas City Council Workshop Meeting Minutes - Draft](#)

- B. Approve the automated clearing house and claim checks as approved by the Finance Committee.

- C. Authorize the write-off of the July 2017 Emergency Medical Services (EMS) billings in the amount of \$82,510.19. This is the monthly uncollectable balance of Medicare and Medicaid accounts that are not collectable after receiving payments from Medicare, Medicaid and secondary insurance. (Submitted by Pam O'Brien)

NOTE: Any item on the Consent Agenda may be removed from the Consent Agenda for general discussion or action.

VI. NON-AGENDA ITEMS

- A. Staff
B. Council

VII. MAYOR

- A. Announcements
B. Mayor's Volunteer Spirit Award

 [August 2017 LDS Grass Valley & Prune Hill Wards](#)

VIII. MEETING ITEMS

- A. Consultant Services for Wastewater Local Limits Development Amendment 1
Details: The City's National Pollution Discharge Elimination System (NPDES) permit for the Wastewater Treatment Plant requires the City to develop "Local Limits" for the amount of toxic metals and other constituents that may be discharged into the public sanitary sewer system. The City contracted with CH2M Inc. in April 2017, to develop a Local Limits Sampling and Evaluation Plan, which was submitted on July 15, 2017, to the Department of Ecology (ECY). The plan, which is attached for reference, provides a very good outline of purpose, background and objective of the Local Limits process and why the City is required to establish future limits. Amendment 1 to the CH2M Inc. contract in the amount of \$100,855, will take the City through the complete process up to adoption of a resolution or ordinance to establish Local Limits to be submitted and approved by ECY by December 31, 2019. The City requested the consultant include an optional Task 9 for \$10,000 for additional hours, if necessary, to work with industries and commercial businesses as the City wants the effort to be an inclusive process with these important groups. The 2017 Budget included money in the Water/Sewer Fund to complete this project.
Presenter: Sam Adams, Utilities Manager
Recommended Action: Staff recommends this item be placed on the September 5, 2017 Consent Agenda for Council's consideration.

 [Local Limits Development Amendment 1](#)

[Camas Local Limits Sampling and Evaluation Plan](#)

- B. Resolution No. 17-012 Relating to Salaries and Benefits for Non-Represented Employees
Details: Non-represented employees were subject to the 2016 salary schedule through June 30, 2017. Resolution No. 17-010 provided for non-represented employees' salaries to be increased by two percent in July, while additional review and work was performed on the non-represented salary schedule. This resolution allows for the non-represented salary schedules to be effective August 1, 2017, provided that the salary schedule is adopted no later than September 30, 2017.
Presenter: Pete Capell, City Administrator
Recommended Action: Staff recommends Council move to adopt Resolution No. 17-012.

 [Resolution No. 17-012](#)

IX. PUBLIC COMMENTS

X. ADJOURNMENT

NOTE: The City welcomes participation of its citizens in the public meeting process. Effort will be made to ensure anyone with special needs can participate. For more information call 360.834.6864.



CITY COUNCIL REGULAR MEETING MINUTES - DRAFT

Monday, August 7, 2017, 7:00 PM

City Hall, 616 NE 4th Avenue

I. CALL TO ORDER

Mayor Scott Higgins called the meeting to order at 7:00 p.m.

II. PLEDGE OF ALLEGIANCE

III. ROLL CALL

Present: Greg Anderson, Bonnie Carter, Don Chaney, Steve Hogan, Melissa Smith and Shannon Turk

Excused: Tim Hazen

Staff: Pete Capell, James Carothers, Cathy Huber Nickerson, Shawn MacPherson, Heather Rowley, Steve Wall and Alicia Pacheco (intern)

Press: No one from the press was present

IV. PUBLIC COMMENTS

Scott Culbertson, 4739 NW Aspen Court, Camas, commented about fireworks.

Jessica Mallard, 4536 NW 11th Circle, Camas, commented about dog ownership.

Ed Fischer, 3522 NW Pacific Rim Drive, Camas, commented about fireworks and bicycle helmets.

V. CONSENT AGENDA

- A. Approved the July 17, 2017 Camas City Council Regular and Workshop Meeting minutes.

 [July 17, 2017 Camas City Council Regular Meeting Minutes - Draft](#)
[July 17, 2017 Camas City Council Workshop Meeting Minutes - Draft](#)

- B. Approved automated clearing house and claim checks numbered 133888 to 134063 in the amount of \$934,965.77. Approved automated clearing house, direct deposit and payroll checks numbered 7410 to 7444 and payroll accounts payable checks numbered 133614 through 133627 in the amount of \$1,843,755.55. Approved electronic payments for the month of July in the amount of \$77,020.49.

It was moved by Council Member Carter, seconded by Council Member Smith, to approve the Consent Agenda. The motion carried unanimously.

A. Staff

There were no comments from staff.

B. Council

There were no comments from Council.

VII. MAYOR

A. Announcements

There were no announcements from Mayor Higgins.

VIII. MEETING ITEMS

A. Appointment to the Civil Service Commission

Details: Mayor Higgins recommends appointment of Brody Barnes to serve on the Civil Service Commission. This appointment fills the remainder of the term vacated by Tanis Knight and will expire on December 31, 2020. His term is effective immediately.


Presenter: Pete Capell, City Administrator

It was moved by Council Member Chaney, seconded by Council Member Hogan, to accept the appointment of Brody Barnes to the Civil Service Commission as recommended by the Mayor. The motion carried unanimously.

B. Ordinance No. 17-011 Reducing the Speed Limit for a Portion of State Route 500 (SR-500)

Details: Ordinance No. 17-011 adopts the findings of justification by the Washington State Department of Transportation (WSDOT) to extend the 35 mile per hour zone an additional half mile north on SR-500. The transition from 35 miles per hour to 50 miles per hour will be posted approximately 350 feet north of SE 5th Street.

Presenter: James Carothers, Engineering Manager

 [Ordinance No. 17-011 Reducing the Speed for a Portion of SR-500](#)
[SR-500 Revised Posted Speed Change Proposal](#)
[Map](#)

It was moved by Council Member Carter, seconded by Council Member Hogan, that Ordinance No. 17-011 be read by title only. The motion carried unanimously.

It was moved by Council Member Carter, seconded by Council Member Hogan, that Ordinance No. 17-011 be adopted and published according to law. The motion carried unanimously.

C. Ordinance No. 17-012 Ratifying and Approving Public Works Trust Fund (PWTF) Loan

Details: This ordinance formally approves a PWTF Loan for \$2,040,000 with the State of Washington that was entered into on August 6, 2012. This loan is for the Gregg Reservoir project and will be repaid with funds from water utility billing.

Presenter: Cathy Huber Nickerson, Finance Director

 [Ordinance No. 17-012 Ratifying and Approving PWTF Loan](#)

It was moved by Council Member Hogan, seconded by Council Member Carter, that Ordinance No. 17-012 be read by title only. The motion carried unanimously.

It was moved by Council Member Hogan, seconded by Council Member Smith, that Ordinance No. 17-012 be adopted and published according to law. The motion carried unanimously.

IX. PUBLIC COMMENTS

No one from the public wished to speak.

X. ADJOURNMENT

The meeting adjourned at 7:17 p.m.

NOTE: The City welcomes participation of its citizens in the public meeting process. Effort will be made to ensure anyone with special needs can participate. For more information call 360.834.6864.



CITY COUNCIL WORKSHOP MEETING MINUTES - DRAFT

Monday, August 7, 2017, 4:30 PM

City Hall, 616 NE 4th Avenue

I. CALL TO ORDER

Mayor Scott Higgins called the meeting to order at 4:30 p.m.

II. ROLL CALL

Present: Greg Anderson, Bonnie Carter, Don Chaney, Steve Hogan, Melissa Smith and Shannon Turk

Excused: Tim Hazen

Staff: Debra Brooks, Pete Capell, James Carothers, Cathy Huber Nickerson, Leona Langlois, Robert Maul, Shyla Nelson, Heather Rowley, Ron Schumacher, Steve Wall and Alicia Pacheco (intern)

Press: No one from the press was present

III. PUBLIC COMMENTS

No one from the public wished to speak.

IV. WORKSHOP TOPICS

A. Socrata Open Performance Demonstration

Details: As part of the City's new Strategic Plan, one of the initiatives included performance measurements. The City has successfully worked with Socrata to develop the Open Budget and Open Spending software, which provides financial transparency to citizens. Socrata also provides Open Performance, which will allow the City to track goals and initiatives with performance measurements that can be linked back to Open Budget to enhance the financial story of the City. Staff provided a preview of the software and demonstrated what another city has accomplished with the program.

Presenter: Cathy Huber Nickerson, Finance Director

Huber Nickerson demonstrated the software and responded to Council's questions.

B. State Route 500 (SR-500) Posted Speed Revision

Details: The Camas School District is preparing to construct a northern access on NE Garfield Street to Camas High School. The intent is to have this access opened by the start of the 2017-2018 school year. The high school traffic will enter and exit SR-500, also known as NE Everett Street, at NE Everett Drive just

south of SE 8th Street. The current posted speed at this intersection is 50 miles per hour. With the increase in school traffic at this location, staff recommended at the July 3, 2017, workshop that the 35 mile per hour posted speed limit boundary be moved to just north of SE 8th Street. Washington State Department of Transportation (WSDOT) is responsible for setting the posted speed on this state route. The southwest region of WSDOT conducted a study and found the reduced speed is warranted. In order to forward this request to the state traffic engineer for approval, Council must adopt an ordinance in support of this reduced speed limit. Since the workshop of July 3, 2017, a concern was brought forward by a citizen regarding the limited sight distance available at SE 5th Street, due to a vertical curve on SR-500. After review of the roadway characteristics, WSDOT can justify moving the 35 mile per hour speed zone boundary to the north of SE 5th Street. Staff recommends this speed zone alteration. Attached is a map depicting the area of the recommended speed limit change and the proposed Camas High School access location.

Presenter: James Carothers, Engineering Manager

 [SR-500 Revised Posted Speed Change Proposal Map](#)

Carothers summarized the item and discussion ensued. An ordinance was placed on the August 7, 2017 Regular Meeting Agenda for Council's consideration.

C. Development Construction Project Update

Details: The development community is currently constructing a number of projects throughout the City. Some of the projects under construction have been conditioned to complete roadway improvements that will add capacity, change roadway geometry, or add intersection controls. Staff will provide a brief update about some of the projects occurring throughout the City and the associated roadway improvements.

Presenter: Steve Wall, Public Works Director

 [Development Construction Project Update](#)

Wall reviewed the presentation and discussion ensued.

D. Public Works Miscellaneous and Updates

Details: This is a placeholder for miscellaneous or emergent items.

Presenter: Steve Wall, Public Works Director

Wall provided an update about the City's water use and projects impacted by the Capital Budget.

Wall commented about streetlights throughout the City and the completion of Forest Home Road.

E. Community Development Miscellaneous and Updates

Details: This is a placeholder for miscellaneous or emergent items.

Presenter: Robert Maul, Planning Manager

Maul commented about the Green Mountain and the Parklands at Camas Meadows developments.

Maul briefed the Council regarding future meeting items including a presentation from the Clark County Historical Preservation Commission, a draft ordinance regarding trees and updates to Title 18 of the Camas Municipal Code (CMC).

Maul responded to questions from Council regarding the Camas Crossing development.

F. Possible Congestion Tolling on Interstate 5 (I-5) and Interstate 205 (I-205) Bridges

Details: Oregon House Bill (HB) 2017 directs the Oregon Transportation Commission (OTC) and Oregon Department of Transportation (ODOT) to study tolling on the I-5 and I-205 bridges and proceed with an application to the Federal Highway Administration (FHWA) no later than December 31, 2018 to possibly seek approval to implement value pricing on the bridges.

Presenter: Pete Capell, City Administrator

 [Oregon HB 2017 Transportation Bill Tolling Language](#)
[Oregon HB 2017 Implementation Outline](#)

Capell summarized the item and discussion ensued.

G. City Administrator Miscellaneous Updates and Scheduling

Details: This is a placeholder for miscellaneous or scheduling items.

Presenter: Peter Capell, City Administrator

Capell commented about the salary study for non-represented employees, bargaining with the labor groups and mediation with the International Association of Fire Fighters (IAFF).

Capell confirmed Council attendance for the August 21, 2017 Workshop and Regular Meetings.

V. COUNCIL COMMENTS AND REPORTS

Chaney, Carter and Mayor Higgins attended three ribbon cutting ceremonies in Downtown Camas.

Anderson attended a meeting of East County Fire and Rescue (ECFR). He commented about wireless communication facilities.

Turk commented about the Concerts in the Park and Movies in the Park.

Carter attended a meeting of the Library Board of Trustees and will attend the Downtown Camas Association (DCA) meeting. Carter announced the Camas

Farmers Market will resume this week.

Smith commented about Camas Days and the Employee Appreciation Event.

Mayor Higgins announced that he will not present for the August 21, 2017, Council meetings. He commented about the City's Strategic Plan video.

VI. PUBLIC COMMENTS

No one from the public wished to speak.

VII. ADJOURNMENT

The meeting adjourned at 6:03 p.m.

NOTE: The City welcomes participation of its citizens in the public meeting process. Effort will be made to ensure anyone with special needs can participate. For more information call 360.834.6864.

Mayor's
VOLUNTEER SPIRIT AWARD

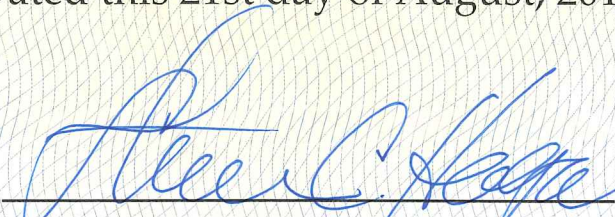
in the City of Camas, presented to

**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
GRASS VALLEY AND PRUNE HILL WARDS**

In appreciation of their dedicated volunteer groups, who have given
countless hours in service to the Camas community.

Dated this 21st day of August, 2017




Steve Hogan, Mayor Pro Tem



Attachment 1

Scope of Work

Amendment 1: Local Limits Development – City of Camas, Washington

Background & Objectives

The City of Camas has requested CH2M to provide consulting services to the City of Camas (City) to help develop technically-based local limits (TBLL) for industrial users, as required by the City's NPDES Permit for the Camas Wastewater Treatment Plant (WWTP). This work includes:

- Development of a Local Limits Development Plan (or Local Limits Sampling and Evaluation Plan; *this work approved separately under the original contract*),
- Assistance with monitoring treatment plant influent and effluent for priority pollutants,
- Sampling to determine plant partitioning of pollutants,
- Compilation and analysis of data,
- Calculation of TBLL,
- Preparation of a rationale document that will provide the legal basis for the TBLL and assist with future planning, and
- Carry out a Communications and Collaboration Plan (CCP) to work with industry.

Section S6 F.1 of the City's NPDES Permit No. WA0020249 states:

"The Permittee shall develop and codify local limits for the follow pollutants and any other which the initial screening shows may adversely affect the POTW: Antimony, Arsenic, Cadmium, Chromium (both total and hexavalent), Copper, Cyanide, Fluoride, Total Petroleum Hydrocarbons, FOG (Fats, Oil and Grease), Lead, Mercury, Molybdenum, Nickel, pH, Selenium, Silver, Sulfate, Total Dissolved Solids, and Zinc (20 total). The Permittee shall also establish either limits or a strategy for controlling non-domestic loadings of compatible pollutants: BOD, TSS, and Ammonia through loading allocations, surcharges, or similar means.

The Permittee shall follow the methodology described in Ecology Publication: Guidance Manual for Developing Local Discharge Limits, Ecology Publication 11-10-056 to develop local limits for the protection of its treatment works..."

The purpose of this project is to assist the City with development of technically-based local limits (TBLL) per the NPDES permit requirements and regulatory submittal deadlines. The following scope amends the originally contracted scope for the Local Limits Development Plan, which was approved separately by the City.

Schedule

The full project schedule is listed below in Table 1. Regulatory submittal deadlines in the schedule below in Table 1 are indicated by **bold underline**.

Table 1. Project Schedule	
Task or Milestone	Expected Completion Date
Internal Kickoff Meeting (Task 2)	June-July (TBD; subject to change based on availability)
External Kickoff Meeting (Task 2)	August 1, 2017 (subject to changed based on availability)
Task 1 – Prepare Local Limits Development Plan	
Local Limits Development Plan (Draft)	July 1, 2017
Local Limits Development Plan (Final, to Ecology)	<u>July 15, 2017</u>
Task 2 – Communication/Collaboration Plan	To commence by prior to August 1, 2017 and continue throughout project.
Individual Stakeholder Meetings (Task 2)	August 1 & 2, 2017 (subject to changed based on availability)
Task 3 - Data Review	
Proposed List of POCs (to Ecology) and Rationale.	<u>December 1, 2017 (or 30 days after Ecology approval of the Local Limits Development Plan, whichever is later)</u>
Task 4 – Site-Specific Testing	
Quarterly Sampling during 2018	December 31, 2018
Final data submittal (to Ecology)	<u>February 15, 2019</u>
Task 5 – Data Analysis and Calculations	
Draft Technical Memorandum (Tech Memo-documentation of sampling and testing protocols, data analyses, and rationales for local limits proposed)	June 1, 2019
Final Tech Memo (to City)	July 1, 2019
Task 6 – Local Limits Adoption Support	
Final Proposed Limits and Basis (to Ecology)	<u>July 15, 2019</u>
Publish for Public Comment, after approval by Ecology	City Dependent
Task 7 - Public Meeting (Meetings and Discussions Support)	City Dependent
Draft Resolution or City Ordinance	September 30, 2019-pending approval by Ecology
Final City Resolution or Ordinance (to City)	November 15, 2019 (to be codified by December 15, 2019)
Project Closeout (Task 8 – Project Management)	December 31, 2019

General Project Assumptions

1. The City will be responsible for the timely collection of comments from reviewers, and resolving conflicting comments, and shall submit one set of consolidated comments to CH2M for each deliverable.
2. CH2M will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by the City.

3. It is assumed that the City will contract directly with a laboratory acceptable to both the City and CH2M for testing services required under this activity. Pricing for laboratory analyses are not included in CH2M's pricing for this activity.

Task 1 – Prepare Local Limits Development Plan (*included here for reference, as already contracted as Task 2 under the Local Limits Development Plan project – no changes made*)

The purposes of establishing local limits are several – but primarily are used to protect against the discharge of pollutants and at a quantity or rate that cause the POTW to violate water quality standards, impair beneficial use of biosolids, threaten worker safety or the public. Per Ecology's guidance, local limits are established by calculating safe loadings of pollutants to the treatment works, and then dividing available capacity over the non-domestic dischargers and establishing limits to prevent adverse effects at the point of discharge to the collection system.

CH2M will develop a Local Limits Development Plan that considers the unique Significant Industrial Users present in the service area, the particulars of unit processes at the City, and the water quality characteristics of the effluent diffuser mixing zone in the Columbia River, and the City's biosolids beneficial use program. The Local Limits Development Plan will include the written POC screening protocol.

Task 1 Deliverables

1. Draft Local Limits Development Plan (electronic submittal to the City – Microsoft Word document and Adobe pdf).
2. Final Draft Local Limits Development Plan for submittal to Ecology (electronic submittal only – Adobe pdf).
3. Written responses to Ecology review comments of the Final Draft Plan (electronic submittal only).
4. Final Local Limits Development Plan (2 hard copies for the City; 1 hard copy for Ecology).

Task 2 – Communication/Collaboration Plan (CCP)¹

To assure City/Industrial input and collaboration CH2M will develop and implement a communication/collaboration plan (CCP) as outlined below. The CCP is a strategic and dynamic (changing) process with the following objectives:

- Keeping the City and industry informed regarding TBLL progress
- Provide awareness and training to assure meaningful stakeholder participation
- Establish a route for City/Industrial Input
- Achieve the best Win-Win outcome
- Assist with negotiations of final product
- Achieve the best level of local support for the final product presented to Ecology
- Contribute to the reputation of the City of Camas as a good environment for enterprise

¹ Due to the immediacy of the due date for the plan, it has been listed and executed as Task 1. Ideally, the CCP would be Task 1. In Subtask 2.2 this will be discussed with the stakeholders and a clear explanation will be made that the plan does not contain negotiable issues, or if such issues are found these will be discussed.

Subtask 2.1 Internal Kickoff Meeting

1. Upon initiation of the project, two (2) CH2M staff will attend an internal kickoff meeting with the City to discuss the work plan, CCP, project schedule, sampling logistics and similar items. This meeting will be held via conference call and is assumed to be two (2) hours in length.

Subtask 2.2 External Kickoff Meeting

Pending scheduling and logistics after the internal kick-off meeting (Subtask 2.1), one (1) CH2M staff will attend a meeting with industrial representatives and other City-selected stakeholders will be conducted. This meeting will include a presentation, open to questions and discussion at each point, and will include:

- Introduction to the personnel involved and the objectives.
- Short training on the required process, the inputs and outputs
- Issues that may be negotiable
- Issues that are a regulatory requirement and hence not negotiable
- Discussion of allocation methods
- Options for treatment at industries
- Options for treatment at City treatment plant
- A calendar of communications as specified below and key contact information.

The stakeholders for this meeting will be pre-invited by the City and also notified that individual meetings will be conducted after the industrial meeting to discuss individual concerns as outline in Subtask 2.3.

Subtask 2.3 Individual Stakeholder Meetings

One (1) CH2M staff will meet with individual key stakeholders. These meetings are expected to be scheduled for approximately 1.5 hour each. These meetings will cover the industrial operations, industrial concerns and the hoped-for results.

Subtask 2.4 Individual Stakeholder Follow-up

- Provide to all stakeholder a schedule of expected communications.
- Monthly progress reports.
- Skype or other electronic meeting to discuss the MAHLS and MAILS once these are calculated.
- Individual meetings with stakeholder to discuss allocation method as needed.
- Final meeting with individuals to discuss outcome and impact on permits.

Task 2 Assumptions

1. Each step outlined will be provided to the City for review. The City will provide feedback, recommendations and approval (electronic or written) prior to deployment.
2. The City will provide a representative for all meetings with industry (both live and electronic).
3. Assumes 40 hours of CH2M staff time to prepare for and execute all meetings listed under Subtasks 2.2, 2.3 and 2.4, and 20 hours of CH2M staff time to prepare monthly progress reports under Subtask 2.4. If effort beyond these 40 hours is required, additional scope and budget will need to be authorized by the City, under Task 9 – Supplemental (below) and/or a separate agreement if needed.

Task 2 Deliverables

1. Subtask 2.1: Meeting report and work plan revised by CH2M to account for modifications agreed to during the chartering meeting.
2. Subtask 2.2: Meeting report with agreed-to results and promised actions.
3. Subtask 2.3: Individual meeting reports and comments and analysis of feedback where appropriate.
4. Subtask 2.4: Complete outline of communication milestones. A dedicated email address that delivers future feedback to the City and CH2M to be used by industries/stakeholders.

Task 3 – Data Review

Subtask 3.1 Identify and Select Pollutants of Concern (POCs)

During this phase, CH2M HILL will collect and Review Available Records and Data to determine criteria to be used to develop local limits. CH2M will review the following under Subtask 2.1:

- Current NPDES permit
- Priority Pollutant Scans in the last 3 years
- A list and description of biosolids handling and disposal methods
- A list of treatment plant improvements, modification(s) recently completed or planned
- Current monitoring data for pollutants covered by TBLL
- A list of any Inter-Jurisdictional Agreements
- A list of industrial users and any expected changes
- Whole Effluent Toxicity Test results (5 years)
- Treatment plant monitoring data for flow, BOD, TSS, ammonia and phosphorus
- History of effluent discharge compliance
- Other criteria and data sources as they become available.

This data along with the latest regulatory requirements will be fully reviewed for inclusion in the final technical document. This activity is intended to be inclusive of EPA mandated pollutants which must be considered (heavy metals), as well as the pollutants identified in section S6.F of the current Camas NPDES Permit. These are listed in Table 2 below. In addition, the local limits development will establish limits or a strategy for BOD, TSS, and Ammonia.

Table 2. Minimum Pollutants for Local Limits Development	
Antimony	Cyanide
Arsenic	Fluoride
Cadmium	Total Petroleum Hydrocarbons
Chromium (total and hexavalent)	Fats, Oil and Grease (FOG)
Copper	pH
Lead	Sulfate
Mercury	Total Dissolved Solids
Molybdenum	

Table 2. Minimum Pollutants for Local Limits Development	
Nickel	
Selenium	
Silver	
Zinc	

Subtask 3.2 Collect Additional Data

In addition to the results of Subtask 2.1 above, judicious selection of additional data from USGS, engineering data and local industrial conditions, will be collected. This information will potentially include:

- Stream flow
- Stream conditions
- Plant design criteria-specific unit process size and capacity
- Review of prior records for possible instances of pass through
- Worker health and safety issues/flammability and toxicity
- Conventional pollutant loading record
- Laboratory data
- Other applicable data potentially needed for TBLL development

Task 3 Assumptions

None; see General Project Assumptions above, and assumptions under other tasks.

Task 3 Deliverables

1. Proposed list of POCs and rationale (City to submit to Ecology)
2. CCP report on POCs for review and dispatch.

Task 4 – Site-Specific Testing

CH2M will coordinate with City staff to conduct testing on the system to establish site specific conditions, determine plant partitioning and conduct limited mass balance calculations. The proposed tests regimen is shown in Table 3.

Table 3-Test Round Regimen ¹	
Frequency	Test Site
2	Influent
1	Primary Effluent
2	Effluent
TBD	Domestic Contribution Site ¹
TBD	Industrial Discharges ²
1	Concurrent Biosolids Monitoring

Table 3-Test Round Regimen ¹	
2	Receiving Stream (ambient monitoring)
<i>TBD</i>	After other key treatment plant processes ³ that splits flow to biological treatment units in a way that separately influences POC levels to biological treatment units or route solids to the sludge through more than one process.
¹ CH2M will propose in the sampling plan using the domestic approximation method where the domestic value is set to the influent value. This is a conservative assumption. Testing for domestic will be dependent on Washington Department of Ecology acceptance of the plan. ² Testing of industry will be dependent of review of historic records. Monitoring of industry will be conducted for any industry has been shown to discharge ≥5% of the total loading of any single POC received at the influent to the POTW. ³ Monitoring at other key treatment plant processes shall be determined after a walk-through inspection of the treatment plant. CH2M has included the locations that must be evaluated but at this time does not expect additional testing for items marked <i>To Be Determined (TBD)</i> .	
Proposed Test Rounds: 4 rounds, one round per quarter as per the wastewater treatment plant discharge permit.	

Task 4 Deliverables

None; see Deliverables under Task 5 below.

Task 4 Assumptions

1. It is assumed that the City will contract directly with a laboratory acceptable to both the City and CH2M for testing services required under this activity. Pricing for laboratory analyses are not included in CH2M's pricing for this activity.
2. It is assumed that four auto samplers will be required for this activity – all of which will be provided by the City. No sampler rentals are included in the pricing for this task.
3. Pending review of historical records a single round of sampling and testing for pollutants listed in 40 CFR Tables IV and VI and 40 CFR 136 Appendix A, Methods 624 and 625 may be required. If sufficient tests information is available, after review of historic records CH2M will propose in the sampling plan that sufficient data is currently available to meet these requirements.

Task 5 – Data Analysis and Written Rationale (Tech Memo)

CH2M will perform the following under Task 5:

- Review testing data for anomalies and set up data management to facilitate calculations.
- Perform calculations using compiled data and apply best professional judgment to establish proposed local limits.
- Provide a well written rationale in a formal Tech Memo in accordance with the State of Washington Ecology Guidance Manual for Developing Local Discharge Limits. Additionally, when the Ecology manual does not provide specific guidance the 2004 EPA Guidance Manual and other accepted sources will be used and documented. This approach will expedite regulatory acceptance and provide a sound foundation for client enactment and enforcement. A well-written and documented rationale also facilitates long range planning and construction of future local limit requirements.

Task 5 Assumptions

1. The City will provide up to two (2) rounds of consolidated comments on the Draft Tech Memo. Resolution of comments will be conducted via phone and email communication. Upon completion of this deliverable the City will submit the draft local limits to Ecology. CH2M will submit the limits upon request by the City.
2. Allocations will be proposed to industries based on prior communications conducted under Task 2. Any effort needed to further negotiate allocations with industries beyond labor allocated under Task 2 will require additional scope and budget under Task 9 – Supplemental and/or a separate agreement.

Task 5 Deliverables

1. Completed Ecology's local limits spreadsheet (<http://www.ecy.wa.gov/programs/wq/permits/newll11blank.xlsm>) along with example long hand calculation confirming correct usage of the spreadsheet (normally required by Ecology).
2. Documentation containing proposed limits, all inputs used in the calculations, decisions using best professional judgment, description of how limits were allocated and how limits will be applied. (Draft Tech Memo)
3. CCP report on final allocation meetings and method utilized.

Task 6 – Local Limits Adoption Support

After completion of Task 5 and agreement concerning the contents of the TM and spreadsheet calculations, CH2M will support the City by providing one of the following for inclusion with the submittal of the limits by the City of Camas to Ecology:

- a.) Language to be used for adoption by City Resolution. This is the preferred option because it provides more flexibility in the future but will require the City Attorney to certify that the City legal code allows this option.
- b.) If the City code does not allow adoption by resolution CH2M will provide suggested modifications to the City's Ordinance for adoption of the limits by the City.

Ecology requires the opportunity to review and provide comments before approving the limits. Approval of the limits in turn is required prior to the City sending the limits out for a public comment period and commencing the final adoption process.

CH2M will support the City by responding to comments and making any justified modifications requested by Ecology. Upon resubmittal of the limits and approval from Ecology CH2M will provide as requested from the City, suggestions to help with public notification and upon completion of the public comments period provide answers to city governance in the final adoption process.

Task 6 Deliverables

1. Written response to Ecology comments and modification to the draft local limits.
2. Suggestions for public comments as requested by the City.
3. Modified City ordinance with final local limits, or process for adoption by resolution.

Task 6 Assumptions

1. Pricing assumes two cycles of review comments from Ecology.
2. The City will submit local limits and justification rationales to Ecology for their review and comment or approval.

Task 7 – Meetings & Discussions

CH2M will participate in the following meetings and discussion related to the tasks described above:

1. Two (2) CH2M staff will participate in a conference call with the City to review Ecology comments on the draft local limits
2. Two (2) CH2M staff will attend the public meeting that is required to provide affected the public and SIUs the opportunity to comment on the proposed limits.
3. One (1) CH2M staff will attend the CCP final meeting with industries to discuss impacts of TBLL and permit limit modifications.

Task 7 Assumptions

1. Assumes 46 hours of total CH2M staff time for meetings under Task 7.

Task 7 Deliverables

1. Meeting notes for each of the three meetings outline above.

Task 8 – Project Management (*as amended to Task 1 – Project Management as already contracted under the Camas Local Limits Development Plan*)

CH2M's project manager will perform the following project management tasks:

- Project set-up and project closure.
- Communicate regularly with the City's project manager as needed but no less frequently than biweekly, and will maintain an action item and decision log as appropriate for the project.
- Prepare and submit a monthly invoice and brief progress report.
- Manage change: Monitor project for potential changes, anticipate changes whenever possible, and with City approval, modify Project tasks, task budgets, and approach to keep the overall project within budget and on schedule.

Task 8 Deliverables

1. Monthly invoices with progress reports including a narrative of the work completed and estimated percent complete under each task.

Task 9 – Supplemental (optional)

This optional task will require authorization by the City and may include services in addition to the tasks described above, including additional communication and coordination with SIUs, and other supplemental work identified during the project that has not been scoped. Task 9 to be authorized for up to \$10,000 by the City.

Cost

CH2M HILL proposes to perform the services described for this amended scope of work (Tasks 1-8) for a not-to-exceed amount of \$100,855 per Table 4 below. An additional \$10,000 under Task 9 (Supplemental) will be utilized only after authorization by the City.

Table 4. Project Fee

Task	Labor Cost	Expenses	Total
Task 1 – Prepare Local Limits Development Plan (<i>already contracted separately</i>)	--	--	--
Task 2 – Communication/Collaboration Plan	\$17,054	\$1,647	\$18,701
Task 3 – Data Review	\$11,498	--	\$11,498
Task 4 – Site-Specific Testing	\$10,485	\$5,840	\$16,325
Task 5 – Data Analysis and Calculations	\$26,638	\$100	\$26,738
Task 6 – Local Limits Adoption Support	\$5,684	--	\$5,684
Task 7 – Meetings & Discussions	\$10,891	\$3,174	\$14,065
Task 8 – Project Management (<i>amendment amount only</i>)	\$7,845	--	\$7,845
Total (Tasks 1-8)	\$90,094	\$10,761	\$100,855
Task 9 – Supplemental (optional; to be authorized for up to \$10,000)	--	--	\$10,000
Total (Tasks 1-9)	\$90,084	\$10,761	\$110,855

Labor will be billing at a 3.2 multiplier on raw salary costs.

Camas Wastewater Treatment Plant Local Limits Sampling and Evaluation Plan

Prepared for

City of Camas, Washington

July 14, 2017



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Acronyms and Abbreviations

BOD ₅	5-day biochemical oxygen demand
CAS	Chemical Abstracts Service
CFR	Code of Federal Regulations
City	City of Camas
COC	chain of custody
°C	degrees Celsius
DL	detection level
Ecology	Washington Department of Ecology
EPA	U.S. Environmental Protection Agency
FOG	fats, oil and grease
gpd	gallons per day
HDPE	high-density polyethylene
MAHL	maximum allowable headworks loading
MIU	minor industrial user
mgd	million gallons per day
mg/kg	milligrams per kilogram (dry)
mg/L	milligrams per liter
mL	milliliters
ML	minimum level
NPDES	National Pollutant Discharge Elimination System
O&G	oil and grease
POC	pollutant of concern
POTW	publicly-owned treatment works
QA/QC	quality assurance/quality control
QL	quantitation level
RL	reporting level
SIU	significant industrial user
TBL	technically-based local limits
TDS	total dissolved solids
TPH	total petroleum hydrocarbons
TSS	total suspended solids
µg/L	micrograms per liter
WWTP	wastewater treatment plant

Introduction

The City of Camas (City) is required to ensure that all commercial and industrial users of the City's wastewater treatment plant (WWTP) comply with federal pretreatment regulations in 40 CFR 403, and Sections 307(b) and 308 of the Clean Water Act.

To meet these requirements, the City must develop and codify technically-based local limits (TBLL) for pollutants of concern (POCs) that may adversely affect the WWTP. TBLL are to be developed for all significant sources of industrial wastewater to the City's WWTP, per Section S6 F.1 of the City's National Pollutant Discharge Elimination System (NPDES) Permit No. WA0020249.

1.1 Purpose

This Local Limits Sampling and Evaluation Plan (also known as a local limits development plan) is required by Section S6 F.1 of the City's NPDES permit for submission to the Washington Department of Ecology (Ecology). Ecology must review and approve this plan before sampling for POCs at the WWTP can commence. The following guidance documents were used to develop this Sampling and Evaluation Plan and will be used throughout the City's TBLL development process:

- *Ecology's Guidance Manual for Developing Local Discharge Limits* (Ecology, 2011)
- *Ecology's Water Quality Program Permit Writer's Manual* (Ecology, 2015)
- The U.S. Environmental Protection Agency's (EPA) *Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program* (EPA, 1987) and *Supplemental Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program* (EPA, 1991)
- EPA's *Local Limits Development Guidance* (EPA, 2004)
- Title 40 CFR 136 and 40 CFR 122

1.2 Background

Local limits are discharge standards for conventional, nonconventional, and toxic pollutants that apply to significant industrial users (SIUs) and typically also minor industrial users (MIUs), referred to herein as commercial users or commercial enterprise. Commercial enterprise is typically subject to the same local limits as SIUs but are not subject to the same periodic monitoring requirements, and are often addressed using mandatory best management practices (BMPs) as provided for by the City's local ordinance.

As listed in the City's NPDES permit, SIUs are defined as follows:

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; and
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day (gpd) or more of process wastewater to the publicly-owned treatment works (POTW) (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic, organic or any single pollutant capacity of the POTW treatment plant; **or** is designated as such by the Control Authority [Ecology] on the basis that the industrial user has a reasonable potential for adversely

affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

Ecology listed five SIUs in the City's latest (2014) NPDES permit application as significant sources of industrial wastewater. Of these five, one has subsequently closed (Heraeus Shin-Etsu [NRP LLC]). The following four remaining SIUs currently discharge to the City's WWTP under State Waste Discharge permits issued by Ecology:

1. **WaferTech** is a semiconductor integrated circuit (IC) fabrication facility subject to Categorical Pretreatment Standards under 40 CFR 469, and its discharge makes up a significant portion (16 to 27 percent) of the influent at the City WWTP. Its discharge contains very high concentrations of total dissolved solids (TDS), according to their current permit. There is also concern is that the sudden stoppage of the WaferTech discharge could create an osmotic stress for the bacteria in the City WWTP'S activated sludge.
2. **Linear Technology Corporation** (Linear Tech) is a semiconductor wafer production facility. Wastewater sources include: neutralized acid wastewater, treated hydrofluoric acid wastewater, process rinse water, gray water, reverse osmosis reject waste, condensate, fume control scrubber blowdown, cooling water, boiler blowdown, and cooling tower blowdown. Linear Tech is subject to Categorical Pretreatment Standards under 40 CFR 469 and discharges more than 200,000 gpd to the City's WWTP.
3. **Karcher North America** (Karcher NA) manufactures industrial and commercial water cleaning systems including pressure washing equipment, automatic parts washers, evaporators, and wastewater treatment/recycle systems. Because of the coating (phosphating and coloring) process, Karcher NA is a subject to Categorical Pretreatment Standards under 40 CFR 433.17, but discharges less than 7,000 gpd of wastewater to the City WWTP according to their current permit.
4. **Sharp Labs of America, Inc.** (SLA) performs research and development related to integrated circuits and Liquid Crystal Display technology. SLA generates the majority of its wastewater from air pollution control (air scrubber) equipment, according to their current permit. Cleaning, etching, stripping, anodic oxidation and polishing processes utilize chemicals such as polishing slurry, sulfuric acid, phosphoric acid, hydrogen peroxide, ammonium hydroxide, ammonium tartrate, ammonium fluoride, and hydrofluoric acid. The photodeveloping stations use tetramethylammonium hydroxide which is a surfactant containing alkaline solution. SLA is an SIU based on its request to discharge 35,500 gallons per day (gpd) of industrial wastewater, although on average the discharge is less than 15,000 gpd, according to their current permit. SLA uses processes that generate industrial wastewater similar to those in semiconductor industry, which may be subject to categorical effluent limitations (40 CFR 469). However, because SLA is a research and development facility, the Categorical Pretreatment Standards do not apply to this SIU.

No other SIUs were identified by the City through the industrial user survey completed in 2016. However, one surveyed property identified as having a high likelihood of being an industrial user has not yet responded to the survey: Bodycote Camas Heat Treatment Plant, which is identified as a metal heat treatment facility. The City is continuing to attempt to obtain the survey information from Bodycote.

In the City's current NPDES permit, Ecology identified 23 pollutants for which the City must develop TBLL. In addition to the pollutants of concern (POCs) listed below in Table 1-1, Ecology also needs the City to develop limits or allocation strategies for three treatment compatible pollutants: 5-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), and ammonia.

The current NPDES permit requires the City to develop either a concentration-based limit or a pollutant-specific loading allocation strategy protective of the maximum allowable headworks loading (MAHL) for each pollutant.

Table 1-1. Non-Treatment Compatible POCs for TBLL Development in Accordance with the City's NPDES Permit

Arsenic	Fluoride	Silver
Cadmium	Lead	Sulfate
Chromium, Hexavalent	Mercury	Total Dissolved Solids (TDS)
Chromium, Total	Molybdenum	Total Petroleum Hydrocarbons (TPH)
Copper	Nickel	Zinc
Cyanide	pH	
Fats, Oils and Grease (FOG)	Selenium	

1.3 Objectives

The goal of deriving local limits is to identify all available regulatory and safety numeric “criteria” that apply for each pollutant and then establish a maximum limit on industry that assures that all criteria are met. Criteria that are commonly used to derive TBLL include but are not limited to:

- Water quality standards
- NPDES permit limits
- Biosolids regulations for disposal
- Inhibition/interference with biological or chemical processes used by the wastewater plant to treat the waste
- Workers’ health and safety (toxicity, flammability, explosivity)
- Plant capacity
- Air emission regulations

Except for workers’ health and safety issues, these criteria are dependent upon how much of a given pollutant is coming into the plant at the headworks (influent) and where these pollutants end up once they enter the plant. For example, in regards to water quality standards, if 30 percent of a substance is extracted into the sludge, then the remaining concentration being discharged into the receiving stream (70 percent) is quite different than if 50 percent of the same material is extracted into the sludge.

Therefore, the objective of this Sampling and Evaluation Plan is to gather the information and research grade data needed to empirically determine how the plant will either pass the material through to the receiving stream, concentrate the pollutant in the sludge or in some cases, such as cyanide, metabolize and eliminate some of the pollutant. In its simplest form, a measurement of the influent followed by a measurement of the effluent will give the pollutant’s removal through simple subtraction. In practice, more sample information is required to obtain the best model and to account for factors such as inhibition of plant processes.

Sampling and Evaluation Procedures

2.1 Determination of Pollutants of Concern (POCs)

Seventeen of the 23 pollutants required for local limits development in Section S6 F.1 of the City's NPDES permit will be sampled for and analyzed under this Sampling and Evaluation Plan. Any additional pollutants identified during initial screening as potential POCs will be added to this list.

Section S6 F.1 of the City's NPDES Permit No. WA0020249 requires the City to “*establish either limits or a strategy for controlling non-domestic loadings of compatible pollutants: **BOD, TSS, and Ammonia** through loading allocations, surcharges, or similar means.*” These three parameters, however, will not receive testing as part of this Sampling and Evaluation Plan but will rely on existing data to establish a load allocation strategy. Also, per Ecology guidance (Ecology, 2011), development of limits for **pH** and **oil and grease** is not expected to require calculation of the available headworks loading, or how they are removed or affected across the treatment train, and thus are not included in this sampling. This plan also assumes that analysis for **total petroleum hydrocarbons (TPH)** is conducted using Method EPA 1664A, which is an adaptation of the tests for oil and grease. Consequently, limits for TPH will also be developed in like manner to oil and grease and independent of headworks loading, and TPH are not included in sampling under this plan.

Per Ecology's recommendation in the City's NPDES permit, initial screening for POCs will include additional pollutants listed in 40 CFR 122, Appendix J. All WWTP monitoring data, including Priority Pollutant Scans (PPS), from the past three years will be reviewed as part of this initial screening, to determine if these or any additional pollutants are present in amounts to be of concern, based on EPA guidance. In addition, each of the SIUs will be evaluated to identify chemical compounds that may be present in their discharge and that are also listed in 40 CFR 122 Appendix D, Table 4, and any pollutants identified in the SIU discharges that are toxic but not otherwise covered by available monitoring, for addition to potential POCs. The screening criteria in the EPA's *Guidance on the Selection of Pollutants of Concern* (provided here in Appendix A) will be used to determine whether any of these pollutants should be considered a POC, by applying the most stringent of the criteria for each potential POC.

2.2 Sampling Procedures

Sampling locations will include the following:

1. Influent - sampled and analyzed for 17 pollutants specified plus any additional identified POCs
2. Primary clarifier effluent - sampled and analyzed for 17 pollutants specified plus any additional identified POCs
3. Effluent - sampled and analyzed for 17 pollutants specified plus any additional identified POCs
4. Biosolids (sludge cake) – sampled and analyzed for metals only and additional identified POCs where appropriate¹

¹ Only conservative (does not breakdown or convert to a different less toxic form) POCs will be tested for in the biosolids. Organic compounds and ionic compounds (such as sulfate or hexavalent chromium), which are non-conservative, will be omitted from biosolids analysis because the data cannot be used in a meaningful mass balance.

5. Receiving water (Columbia River) – sampled and analyzed for hardness, cyanide, molybdenum, fluoride and TDS²

The proposed analytes for each of these sampling locations are listed below in Table 2-1, and the proposed sampling timing is provided in Table 2-2. Samples for effluent will be taken 24 hours after influent samples to account for plant retention (see Table 2-2). A process flow diagram for the City's WWTP is provided here in Appendix C for reference.

Domestic discharge samples are not recommended for sampling. This is because sampling at any single point in the collection system results in sampling a small population of contributing flows. In addition, sampling from smaller waste streams can lead to difficulty in obtaining a representative sample. Areas of high turbulence that are needed to obtain representative samples are usually not present in these small lines and non-representative samples are taken due to sample stratification. For this reason, the actual domestic value that will be used in the calculations is the average influent concentration. This method will be referred to as the domestic approximation. At the influent, all flows in the system are fully mixed and sampling can be conducted in an area of high turbulence so that the most representative sample can be taken of what the plant is actually receiving. The use of the influent concentrations represents a conservative assumption because the industrial flow is included and counted toward the domestic contribution, adding an additional safety factor. The last paragraph of Section 4.2.1 of the EPA's *Local Limits Development Guidance* (EPA, 2004) states that sampling at various points in the system "may not accurately represent the background levels" and uses the influent as a check on how much inaccuracy this approach may introduce. During the initial screening, if any industry is determined to be providing a significant proportion of a POC, that POC will be sampled for at the industrial point of discharge each sampling day, and the measured industrial contribution will be accounted for in the domestic approximation.

² The City is currently conducting a receiving water study that consists of four quarterly background water quality samples beginning in the fall of 2016 and measuring conventional pollutants and metals just upstream of the City's discharge to the Columbia River. The final results will be reported to Ecology by December 1, 2017. Data from this study will be used in development of the TBLL. However, because these data will not include cyanide, molybdenum, fluoride, or TDS, these analytes will be sampled for in the receiving water and analyzed as part of this Sampling and Evaluation Plan.

Table 2-1. Proposed Sampling Analytes and Sampling Locations

Analyte & CAS Registry No.	Influent	Primary Clarifier Effluent	Effluent	Biosolids	Receiving Water
Antimony, Total (7440-36-0)	✓	✓	✓	✓	
Arsenic, Total (7440-38-2)	✓	✓	✓	✓	
Cadmium, Total (7440-43-9)	✓	✓	✓	✓	
Chromium, Total (7440-47-3)	✓	✓	✓	✓	
Chromium, Hexavalent (18540-29-9)	✓	✓	✓		
Copper, Total (7440-50-8)	✓	✓	✓	✓	
Lead, Total (7439-92-1)	✓	✓	✓	✓	
Mercury, Total (7439-97-6)	✓	✓	✓	✓	
Molybdenum, Total (7439-98-7)	✓	✓	✓	✓	✓
Nickel, Total (7440-02-0)	✓	✓	✓	✓	
Selenium, Total (7782-49-2)	✓	✓	✓	✓	
Silver, Total (7440-22-4)	✓	✓	✓	✓	
Zinc, Total (7440-66-6)	✓	✓	✓	✓	
Cyanide, Total (57-12-5)	✓	✓	✓		✓
Fluoride (16984-48-8)	✓	✓	✓	✓	✓
Total Dissolved Solids (TDS)	✓	✓	✓		✓
Sulfate (as mg/L SO ₄)	✓	✓	✓		

2.2.1 Sampling Timing and Schedule

Sampling may be scheduled at the convenience of the WWTP staff with the following three restrictions:

1. Sampling must be conducted for three consecutive days, not including one day for initial setup.
2. Sampling must be conducted during a representative time period. For example, the winter holiday season will have high strength domestic waste and usually have lower strength industrial waste loading. Therefore, the samples would not be not representative of a normal condition. Local culture and holidays will also have an influence on this factor.

3. Weather is an important consideration for scheduling the sampling period. Sampling should occur in a time period where precipitation is low enough that flow does not increase or in very wet climates at a time when the flow is near its annual average. Inflow and infiltration will increase the concentration of some metals and dilute others. The rate of removal by the plant is effected by the original influent concentration. Thus, a precipitation event can render the sampling/testing events ineffective. If the weather on the selected sampling period is predicted to be stormy and could potentially interfere, the sampling should be rescheduled.

Table 2-2. Proposed Sampling Timing

	Day 0	Day 1	Day 2	Day 3
Influent	Setup	✓	✓	
Primary Clarifier Effluent	Setup	✓	✓	
Effluent		Setup	✓	✓
Biosolids			Setup	✓
Receiving Water	One grab sample any time during the 2-day sampling period for the effluent (Days 2 and 3).			

2.2.2 Sample Handling Protocol

Clean sampling methods (modified as needed for composite samples) are to be used for sampling.

A written record of sampling activities and field observations will be maintained in a bound field notebook. At a minimum, field notebooks will contain the following information:

- Date, time, parameter to be measured, and location for each sample collected
- Type of sample being collected
- Scheduled analyses for each sample collected
- Field parameter measurements
- Names of sampling personnel
- Deviations from the procedures described in this plan
- Daily signatures for each person making notebook entries
- Any relevant observations of sampling conditions or circumstances

Sample labels for all sample containers must be filled out in indelible, waterproof ink. The label must be moisture-proof to withstand immersed conditions. The following information will be recorded on the sample label:

- Facility name
- Sample location
- Date and time of collection
- Sample type (grab or composite)
- Sample matrix
- Requested analysis

- Preservative added, if any
- Name of sampling personnel

Table 2-3 below summarizes the sample types, containers, required preservation, and maximum holding time for each sample. The selected laboratory will provide all sampling bottles and chemical preservatives.

Table 2-3. Required Containers, Preservation, and Holding Times¹

Analyte	Sample Type	Container	Preservation	Maximum Holding Time
<i>Influent, Primary Clarifier Effluent, Effluent, and Receiving Water Samples</i>				
Total Recoverable Metals (except mercury and hexavalent chromium), Total Hardness	Composite	Polyethylene, Teflon®, Glass	HNO ₃ to pH<2; Cool, <6°C	6 months (180 days)
Mercury	Grab	Polyethylene, Glass with Teflon® lined lid	HNO ₃ to pH<2; Cool, <6°C	28 days
Hexavalent Chromium	Composite	Polyethylene, Teflon®, Glass	NaOH, [NH ₄] ₂ SO ₄ to pH 9.3-9.7; Cool, <6°C	28 days
Cyanide	Grab	Polyethylene, Teflon®, Glass	NaOH to pH >10, reducing agent if oxidizer present; Cool, ≤6 °C,	14 days
Fluoride	Composite	Polyethylene	None required	28 days
Total Dissolved Solids	Composite	Glass	Cool, <6°C	24 hours
Sulfate	Composite	Polyethylene, Teflon®, Glass	Cool, <6°C	28 days
<i>Biosolids Samples</i>				
Metals (except mercury)	Grab ²	Glass	Cool, <6°C	6 months (180 days)
Mercury	Grab ²	Glass	Cool, <6°C	28 days
Fluoride	Grab ²	Glass	Cool, <6°C	28 days

¹ Reference: 40 CFR 136, Table II

² Composite sludge samples may be taken as several grab samples from different portions of the sludge mass.

Results of this sampling must be legally defensible. As such, a thorough Chain of Custody (COC) report will be initiated starting from the field as soon as the sample is collected and completed, and will continue to add information while on its route for delivery to the contract lab. See Appendix B for a sample COC form. Sample bottles shall be prepared and provided by the lab.

Composite sampling will be of 24-hour duration and in no case contain less than 12 aliquots. Additional aliquots over the 24-hour period is preferable and the composite will be flow-weighted where flow measurements are available (expected to be influent and effluent). Otherwise, composite samples will be time-weighted.

When placing a sampler, the sample line should be placed into an area of high turbulence in order to draw a representative sample. The sampler should be set up with all new tubing pre-rinsed with 1:1 nitric acid/deionized water.

The internal temperatures of the auto samplers will be kept at or below the required 6 degrees Celsius (°C). All samples will be immediately labeled and placed on ice before shipment preparation. Samples will be kept at or below 6°C at all times. Prior to shipment, the samples will be packed on ice in laboratory supplied shipping containers. A final temperature reading will be taken and recorded on the COC, and the container is then sealed with shipping tape and a custody seal. The COC form will be completed and reviewed by a second person prior to shipping or delivery.

Cyanide samples will consist of at least four separate grab samples to be collected in separate sample bottles and composited into a single sample at the laboratory. Each set of grab samples will be reported as a single result for that location for each day.

Mercury samples will follow the clean hand/dirty hand protocol as closely as possible (the procedure can be requested from laboratory as part of the sampling sample kits). Mercury should be a grab sample because the method of analysis is sensitive enough that it can detect mercury from the surrounding atmosphere.

Receiving water sampling in the Columbia River will take place from the south terminus of docks protecting the Parkers Landing marina, which is approximately 250 feet from the nearest shoreline and 3,500 feet upstream of the Camas WWTP outfall diffuser. This is same location currently used in the receiving water study (in-progress). Prior to collecting river samples, a clean plastic work space will be laid out on dock. Sample bottles will remain covered in plastic bags inside the plastic lined ice chests. The clean hands work will be responsible for handling only the sample bottle, and all other activities will be conducted by the dirty hands work. Sampling personnel will wear talc-free, silicone-based sampling gloves and if any sampler observes potential contact with a metal surface or unshielded area, gloves will be replaced immediately.

Sampling will be conducted using a 1-quart glass jar that will be pre-cleaned (acid-washed and rinsed with metals-free deionized water) and inside a clean plastic bag prior to sampling. The water sampling jar will be lowered into the surface waters of the flowing river by hand to fill. The river water will be poured directly into the sample bottles and repeated water sample collections will be collected in the glass jar to fill all containers. This sampling technique will reduce handling and minimize any potential for sample contamination. All sample containers will be placed back into plastic bags and sealed, then placed in a cooler on ice. All empty sample containers should be double-bagged when received from the laboratory, and after sampling each sample container will be double-bagged and transported in a clean cooler to prevent contamination.

Biosolids sampling and analysis will be conducted in accordance with approved methods. The biosolids sample shall be collected after final treatment but before any blending or composting occurs. Two wide mouth glass jars of biosolids will be collected on the third day of sampling. Cyanide will not be analyzed for the biosolids samples because it is not a conservative pollutant or covered by the 40 CFR 503 regulations. A clean stainless steel laboratory spatula will be used to collect small (1-2 tablespoon) quantities for each aliquot. Each sample jar will be labeled with COC number, location, date, time, and analyses to be conducted. The COC will specify that results are to be reported as mg/dry kg “dry sludge” and percent solids will be reported along with all analyses.

2.3 Analytical Methods

Prior to commencing sampling, the City WWTP staff must ensure that the lab selected to perform the analyses certifies that the methods in Table 2-4 below will be exclusively used and include a statement that reports will contain not only the reporting limit (RL) but will also include the quantitation level (QL),

also known as the minimum level [ML]). The ML is used in certain instances where surrogates are appropriate, to determine the lowest values that can be used in the EPA *Local Limits Guidance* (EPA, 2004). The lab must also provide prepared sample bottles that have been properly acid rinsed and have the sample preservative added prior to sampling.

The analytical methods for TBLL development are critical. Although less expensive methods are available, the data generated with these methods can be of little or even no value in terms of determining local limits. These cheaper methods are also no longer accepted by the EPA. Consequently, for this TBLL sampling, the tests will be conducted using the methods and minimum detection and quantitation levels shown below in Table 2-4, which are from Ecology's *Permit Writer's Manual*, Chapter 6 (Ecology, 2015) and are also those recommended in Appendix A of the City's NPDES permit and approved under 40 CFR 136. Deviations from the methods listed below in Table 2-4 will require prior written approval from Ecology.

Table 2-4. Required Analytical Methods

Analyte & CAS Registry No.	Required Analytical Method	Required Minimum Detection Level (DL)¹	Required Minimum Quantitation Level (QL)²
Antimony, Total (7440-36-0)	200.8	0.3 µg/L	1.0 µg/L
Arsenic, Total (7440-38-2)	200.8	0.1 µg/L	0.5 µg/L
Cadmium, Total (7440-43-9)	200.8	0.05 µg/L	0.25 µg/L
Chromium, Total (7440-47-3)	200.8	0.2 µg/L	1.0 µg/L
Chromium, Hexavalent (Dissolved) (18540-29-9)	218.7 or SM3500-Cr EC	0.3 µg/L	1.2 µg/L
Copper, Total (7440-50-8)	200.8	0.4 µg/L	2.0 µg/L
Lead, Total (7439-92-1)	200.8	0.1 µg/L	0.5 µg/L
Mercury, Total (7439-97-6)	1631E or 245.7	0.0002 µg/L	0.0005 µg/L
Molybdenum, Total (7439-98-7)	200.8	0.1 µg/L	0.5 µg/L
Nickel, Total (7440-02-0)	200.8	0.1 µg/L	0.5 µg/L
Selenium, Total (7782-49-2)	200.8	1.0 µg/L	1.0 µg/L
Silver, Total (7440-22-4)	200.8	0.04 µg/L	0.2 µg/L
Zinc, Total (7440-66-6)	200.8	0.5 µg/L	2.5 µg/L
Cyanide, Total (57-12-5)	335.4 or 4500-CN D	5 µg/L	10 µg/L
Fluoride (16984-48-8)	SM4500-F E	25 µg/L	100 µg/L
Total Dissolved Solids (TDS)	SM2540-C		20 mg/L
Sulfate (as mg/L SO ₄)	SM4110-B		200 µg/L
Total Hardness	SM2340-B		200 µg/L as CaCO ₃

¹ Detection Level (DL) is defined as the minimum concentration of an analyte that can be measured and reported with a 99 percent confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR 136, Appendix B.

² Quantitation Level (QL) is also known as the Minimum Level of Quantitation (ML), and is defined as the lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to

the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures.

2.4 Quality Assurance/Quality Control (QA/QC)

2.4.1 Field and Laboratory Quality Control

QA/QC samples are important to evaluate sampling procedures (equipment blank) and sample representativeness (field duplicates).

- One trip blank sample for grab samples will be collected each quarter by pouring metals-free distilled water into sample bottles for analysis of all parameters.
- One equipment blank sample will be collected each quarter. These samples will be collected using distilled water which has been collected using the same sample equipment used to collect samples in the field.
- A duplicate sample will be collected at one site during each of the four sampling events and analyzed for all parameters.

The laboratory will perform all split sampling, duplicates, matrix spikes, and matrix spike duplicates as required by 40 CFR 136.

2.5 Data Handling

All data are to be reported along with the method detection limit (MDL), minimum level (ML)/quantitation level (QL), and reporting level (RL). All data with results above the ML will be used to develop local limits; surrogate data using one-half of the ML will be used where available for the influent, but not effluent, per EPA guidance (EPA, 2004).

All of the complete laboratory reports and data compilations will be included in the final submittal to Ecology (results of local limits monitoring per NPDES Permit Section S6.F.2) in February 2019.

References

Washington Department of Ecology (Ecology). 2011. *Guidance Manual for Developing Local Discharge Limits*. Publication no. 11-10-056. Available at <http://www.ecy.wa.gov/biblio/1110056.html>.

Ecology. 2015. *Water Quality Program Permit Writer's Manual*. Publication no. 92-109, revised January 2015. Available at <https://fortress.wa.gov/ecy/publications/SummaryPages/92109.html>.

U.S. Environmental Protection Agency (EPA). 1987. *Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program*. EPA 833-B-87-202. December.

EPA. 1991. *Supplemental Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program*. Available at <https://www3.epa.gov/npdes/pubs/owm0013.pdf>

EPA. 2004. *Local Limits Development Guidance*. EPA 833-R-04-002A. July.

Title 40 Code of Federal Regulations (CFR): Protection of Environment. Available at <https://www.ecfr.gov>

Appendix A
*Guidance on the Selection of
Pollutants of Concern (EPA, 1987)*

Guidance on the Selection of Pollutants of Concern

***Guidance Manual on the Development and Implementation of Local Discharge Limitations
Under the Pretreatment Program, EPA 833-B-87-202, December 1987***

Also, EPA guidance directs that a toxic pollutant may be classified as a POC if it meets the following screening criteria:

- *The maximum concentration of the pollutant in a grab sample from the POTWs influent is more than half the inhibition threshold for the biological process; or the maximum concentration of the pollutant in a 24-hour composite sample from the POTWs influent is more than one-fourth of the inhibition threshold for the biological process.*
- *The maximum concentration of the pollutant in the POTWs influent is more than 1/500* of the applicable sludge criteria.*
- *The maximum concentration of the pollutant in the POTWs influent is more than the maximum allowable effluent concentration.*
- *The maximum concentration of the pollutant in the POTW's effluent is more than one half the allowable effluent concentration.*
- *The maximum concentration of the pollutant in the POTW's sludge is more than one half of the allowable sludge concentration.*

The maximum measured concentration of the pollutant was greater than the ACGIH screening level for fume toxicity.

Appendix B

Sample Chain of Custody Form



49784

001

SR#

COC Set of

COC#

Page 1 of 1

www.alsglobal.com

[illegible]

V. EDD

Bill To:

5 Day
Standard

Requested Report Date

Circle which metals are to be analyzed

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

Special Instructions/Comments:

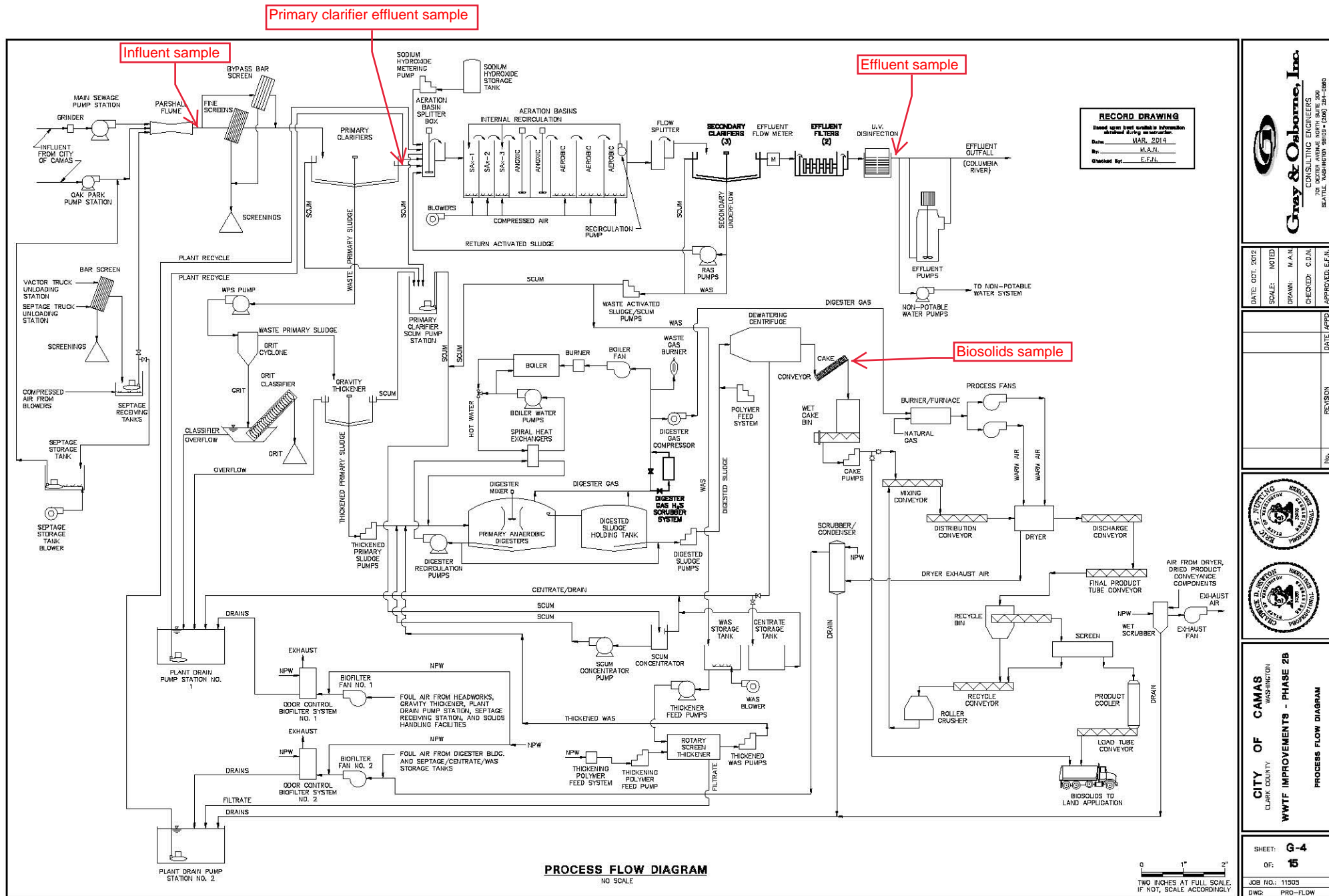
*Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other (Circle One)

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Appendix C

Camas WWTP Process Flow Diagram

\\CAMAS\11505_wwf_design\phase 2\plant-record.dgn\G Sheeta\PRO-FLOW DWG, 8/5/2014 9:05:31 AM, nrcba



RESOLUTION NO. 17-012

A RESOLUTION of the City Council of the City of Camas
relating to salaries and benefits for non-represented employees.

WHEREAS, wage and benefit adjustments for non-represented employees for 2017 were put on hold pending substantial resolution of new bargaining agreements with the City's existing bargaining units and the completion of a salary study which was anticipated to be completed in February 2017; and

WHEREAS, consequently, non-represented employees of the City of Camas were subject to the 2016 adopted salary schedule through June 30, 2017; and

WHEREAS, the City continues to bargain, but has substantially concluded new bargaining agreements with the City's existing bargaining units; and

WHEREAS, a salary study for non-represented employees was completed and was accepted by the City Council by motion at the meeting of July 17, 2017, with the directive that the salary study be clarified and additional review completed for Council consideration by no later than September 30, 2017; and

WHEREAS, on July 17, 2017, by Resolution No. 17-010, the Council adopted salary scales for non-represented employees with an effective date of July 1, 2017; and

WHEREAS, the City Council of the City of Camas shall consider the clarifications to the aforementioned salary study and expresses the intent to amend Resolution No. 17-010 at such time with the adoption of a revised salary schedule for non-represented employees, with an effective date of August 1, 2017, in order to keep the compensation plan competitive with comparable agencies and to maintain compensation at a level which will attract and retain quality employees.

RESOLUTION NO. 17-012

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Camas as follows:

Section I

Resolution No. 17-010 shall be amended, and the salary scales for all non-represented employees, including seasonal employees and interns, shall be set forth in a salary schedule attached thereto, with an effective date of August 1, 2017, at such time as the Council considers the clarification to the salary study referred to herein, but in no event later than September 30, 2017.

Section II

ADOPTED by the Council of the City of Camas and approved by the Mayor this 21st day of August, 2017.

SIGNED: _____
Mayor

ATTEST: _____
Clerk

APPROVED as to form:

City Attorney