

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)
TBD	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 $\geq 5\%$ 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.