

## Carol Creasey

Appendix 3 --Brochures was included in this pdf. The entire document including all the appendices was sent by mail today.

Carol Creasey

November 14, 2018

Abbey Stockwell  
Municipal Stormwater Senior Planner  
WA Department of Ecology  
PO Box 47696  
Olympia, WA 98504

**Re: Evaluation Against Western Washington Municipal Stormwater Phase II General Permit Coverage**

Dear Ms. Stockwell:

In June 2018, Clallam County provided a 5-page letter explaining why the unincorporated Port Angeles Urban Growth Area (PAUGA) did *not* merit being designated a Phase II NPDES permittee. Notwithstanding your August 1, 2018 letter recommending us as a Phase II Permittee, we continue to believe that the characteristics of the unincorporated PAUGA do not warrant NPDES coverage. The rest of this letter explains why the unincorporated PAUGA does not meet the Petition Criteria and provides additional information and clarification for Ecology to change their recommendation.

We are using the information from Ecology's 2012 evaluation for the unincorporated Port Angeles UGA (Appendix 1) to refute the argument that we should be a Phase II in 2019 since we did not receive any specifics from Ecology staff in their August 1, 2018 letter (Appendix 1) to support that argument except that Clallam County had not followed Ecology's recommendations for adopting plans and ordinances. Additionally, it should be noted that Ecology believed that we did not meet the criteria for a Phase II in 2012 and since that 2012 evaluation, the MS4 has not changed, the water quality 303(d) listings have not changed in the unincorporated area, there is better stormwater review since 2012, the amount of impervious surfaces has decreased, population adjacent to the MS4 has decreased, there are more updated stormwater regulations and policies in the recently approved Shoreline Master Plan (SMP) and County-wide Planning Policies, and the support for stormwater management from the Clallam County Department of Community Development (DCD ) Director, Public Works Director and County Engineer, and Board of Clallam County Commissioners (BOCC) has increased.

After the 2012 Ecology evaluation, adoption of the draft plans and ordinances stagnated as result of a change in the elected DCD Director and pushback from the community. The elected and newly elected DCD Director has led staff to bring stormwater management, the draft plans, and draft ordinances to the Planning Commission this Fall 2018 with review continuing through 2019.

## EVALUATION

### **Factor 1: Does the municipal separate storm sewer discharge stormwater to impaired or sensitive waters?**

The 2012 Ecology letter states, “The entire Port Angeles UGA is within Water Resource Inventory Area (WRIA) 18. Eight creeks receive runoff from portions of the UGA including; Dry, Tumwater, Valley, Peabody, White, Ennis, Lees, and Morse Creeks”.

As you can see from Figure 1, there is no unincorporated PAUGA upgradient of Dry Creek, Tumwater, and Peabody Creeks; these creeks are all within the city of Port Angeles (City) and not in the unincorporated PAUGA. The same applies to most of Valley Creek and White Creek since there is only a small portion of unincorporated PAUGA upgradient of these creeks in the City. Part of Ennis Creek and Valley Creek border the City.

The Benthic Index of Biotic Integrity (B-IBI), the widely recognized metric to comprehensively assess pollution in stream ecosystems, data shows mostly excellent B-IBI (green symbol) and good (yellow symbol) results for Dry Creek, Tumwater, Valley Creek, Peabody, White, and Ennis Creeks before entering the city of Port Angeles. Morse Creek is not in the unincorporated PAUGA. Lees Creek shows some issues; however, the B-IBI data, the closest to the Straits, at Lees 0.1 shows good benthic conditions. Lees Creek is discussed further under Factor 2.

The conditions for these creeks has not changed since the 2012 Ecology letter when the unincorporated PAUGA was determined not to meet the Petition Criteria and was not made a Phase II. According to the EPA, data for 303(d) listing includes data *only* through May 1, 2011, which was data available at the time of the 2012 evaluation. Closer analysis of the segments listed as being in Category 5 for various pollutants for creeks that run through the PAUGA shows that most of the concerns for these segments occur within the City rather than the unincorporated PAUGA or upgradient of the PAUGA. In some cases, the situation improves within the upgradient portion of the City itself. However, where pollutants are found in the downstream City portions, the entire segment is labeled as a Category 5 regardless of the better water quality upgradient, because of the segmentation system Ecology used during the last listing period, which is now being changed in the current 305(b) round..

Also, this area is not a TMDL, Sensitive Area, Shellfish Protection District, National Marine Sanctuary, State Designated Outstanding Resource Waters, drinking water intakes or designated protection areas, or designated public swimming areas.

### **Factor 2: Is the municipal separate storm sewer a significant contributor of pollutants to waters of the U.S.?**

As stated in Ecology’s 2012 letter , “ many of the creeks in the unincorporated UGA are on the 303(d) list of impaired waters. Water quality monitoring data from Streamkeepers of Clallam County shows Lees, Ennis, White, Valley, and Tumwater creeks as compromised or impaired based on a rating system from *State of the Waters of Clallam County*, 2004. Most of the relevant monitoring sites in this report are within the City of Port Angeles, which is primarily downstream of the unincorporated UGA.”

As discussed under Factor 1 the B-IBI data from the unincorporated PAUGA and upgradient shows mostly excellent to good benthic health of the streams (Figure 1).

The analysis of pollution/pollutants organized per watershed sectors of the PAUGA:

- A. DRY CREEK: We have no B-IBI data specifically tied to this UGA, but the B-IBI data from Dry Creek in the unincorporated area just outside the City limits indicates no impairment, whereas there is impairment within the City Limits.
- B. VALLEY CREEK: This is a tiny part of the UGA with no County roads and no sign of pollution per B-IBI data.
- C. PEABODY/WHITE CREEKS: Again, this is a tiny part of the PAUGA (2 small polygons) with no sign of pollution per B-IBI data in the portions of Peabody or White Creeks delivered to by County MS4 in this UGA.
- D. ENNIS CREEK: The eastern PAUGA includes the eastern portion of the lower Ennis Creek watershed, but there is no evidence of pollution in Ennis Creek per B-IBI data.
- E. LEES CREEK: More than half the Lees Creek watershed lies within the UGA, including the entire lower portion below the confluence of the two main forks. Here the B-IBI data indicates pollution B-IBI data alternating between fair (orange symbol) to good (yellow symbol) as shown in Figure 1. The B-IBI data from the closest sampling point to the Straits at Lees 0.1 shows good benthic conditions.

The assumption that impairment in the City results from problems in the unincorporated PAUGA is not validated by the B-IBI data. Impairment in the creeks in the City is likely the result of problems from the City. Closer analysis of the segments listed as being in Category 5 for various pollutants for creeks that run through the PAUGA shows that most of the concerns for these segments occur within the City rather than the unincorporated PAUGA or upgradient of the PAUGA. In some cases, the situation improves within the upgradient portion of the City itself. However, where pollutants are found in the downstream City portions, the entire segment is labeled as a Category 5 regardless of the better water quality upgradient, because of the segmentation system Ecology used during the last listing period, which is now being changed in the current 305(b) round.

Lees Creek as discussed in the 2012 Ecology letter shows impairment and is within the unincorporated PAUGA. As the 2012 letter states, “Lees Creek receives significant discharge from the Washington State Department of Transportation (WSDOT) stormwater system along US101. The US101 corridor is the most heavily developed area of the unincorporated UGA with commercial, industrial, multifamily, and limited residential development.” Additionally, as mentioned earlier, the B-IBI data, closest to the Straits, at Lees 0.1 shows good benthic conditions

Please note the conditions for these creeks has not changed since the 2012 Ecology letter where the unincorporated PAUGA was determined not to meet the Petition Criteria and was not made a Phase II. According to the EPA, data for 303(d) listing includes data only through May1, 2011, which was data available at the time of the 2012 evaluation (US EPA, 2015).

Additionally, from November 2011 through December 31, 2017, there has been almost 98,000 sq. ft. of impervious surfaces in the unincorporated PAUGA removed through demolition. During that time period only about 31% of that amount had been replaced on those parcels.

### **Factor 3: Does the municipal separate storm sewer serve a substantial population or area?**

#### **MS4 Estimated Population Served:**

According to the WA Office of Financial Management (OFM) Small Area Estimate Program (SAEP), the unincorporated Port Angeles UGA experienced a reduction in population from 2010 to 2017 with a -0.93 % growth rate.

([https://www.ofm.wa.gov/sites/default/files/public/legacy/pop/smallarea/data/xlsx/saep\\_uninc\\_uga.xlsx](https://www.ofm.wa.gov/sites/default/files/public/legacy/pop/smallarea/data/xlsx/saep_uninc_uga.xlsx))

Using OFM's previously posted data, for the ten year period of 2007 through 2017, the growth rate was -1.50%, which is far below the 15% over a ten year period of high growth rate threshold provided in the Petition Criteria. Recently OFM has published its population estimate for April 2018, the 10 year growth rate from 2008 to 2018 is 0.44%, which is far below the 15% over a ten year period *high growth rate* threshold in the Petition Criteria.

Using the map provided by Ecology from their November 2011 field survey of the County's MS4 infrastructure, the County estimated the current total population served by the MS4. According to the Clallam County Road Department, there have been no changes or additions to the MS4 curb & gutter and ditches since the November 2011 field survey. The population estimate protocol based on Ecology's 2011 protocol included:

- Counting residential structures adjacent to the County's MS4 curb & gutter and ditches (based on Ecology's 2011 field survey map) using parcels from our GIS system and the number of residential housing units from the Assessor's Office.
- Ground truthing the 2011 Ecology map where clarification was needed.
- Applying a household size of 2.193100 residents/household with an occupancy rate of 0.917180, as recommended by OFM's SAEP from the 2017 Estimate Review Worksheet of the City of Port Angeles.
- Certain exclusions were used following Ecology's method from 2011:
  - Residents adjacent to County rights-of-way with no visible MS4 (no ditches or other stormwater infrastructure)
  - Residents of parcels adjacent to private roads
  - Residents of parcels adjacent to US 101 (WSDOT right-of-way) and W. Lauridsen Blv. (City of Port Angeles right-of-way), unless parcels were large and topography indicated flow away from US 101
  - Residents of parcels not discharging to surface waters (where known)

The estimated population as of June 2018 was 930 for the unincorporated PAUGA that is served by the MS4. If you apply the occupancy rate as recommended by OFM, then the estimated population is 853. This is under the minimum population threshold of 1,000 provided in the Petition Criteria.

#### **Impervious surfaces:**

Additionally, from November 2011 through December 31, 2017, there has been almost 98,000 sq. ft. of impervious surfaces in the unincorporated PAUGA removed through demolition. During that time period

only about 31% of that amount had been replaced on those parcels. This is a decrease of 69% of impervious surfaces and considering the very low population growth rate is unlikely to have increased the impervious area served by the MS4 by 10% over the 2008 to 2018 10 year period.

**Soils:**

The soil situation has not changed since the 2012 Phase II evaluation. The Port Angeles area has Elwha-Clallam-Catla soil: shallow and moderately deep, moderately well-drained, nearly level to steep soils; on hills (Halloin, 1987). The soils infiltrate well and over 76% of the acreage in the unincorporated area is on parcels with sizes greater than 1 acre, allowing plenty of area for infiltration. Staff is in agreement with the 2012 Ecology letter which states, “A significant number of residents in the eastern UGA north of US101 are served by roads with no visible MS4. Soils data for this area indicate that infiltration rates are likely high enough to allow discharge to groundwater adjacent to the roads. A number of private roads in other areas of the UGA also result in a large number of households that are not served by County MS4”. It is not just the eastern part of the unincorporated PAUGA but the western and southern parts where there is no visible MS4 and water infiltrates into the ground. Where there is the County MS4 (vegetated roadside ditches and curb and gutter), stormwater infiltrates easily into the ground.

**Factor 4: Is the municipal separate storm sewer contiguously located to an already regulated municipal storm sewer?**

The County’s Municipal Separate Storm Sewer System (MS4) structures consist of discrete, separated roadway ditches and curbs and gutters and do not include any sewer component. Figure 2 shows examples of the MS4. The status of the County’s MS4 in the unincorporated PAUGA has not changed since the 2011 field survey by Ecology; no new County MS4 ditches and curbs and gutters have been added. The County maintains these roadside stormwater conveyances in accordance with the Regional Road Maintenance Endangered Species Act Program. The Clallam County Road Department is a member of the Regional Road Maintenance Program and uses the WSDOT 2014 Highway Runoff Manual and the February 2016 Supplement. According to Ecology’s website, “Ecology approved the WSDOT Highway Runoff Manual as functionally equivalent to the Stormwater Management Manual for both Western and Eastern Washington.”

Since the MS4 did not meet the Petition Criteria for Factor 4 in 2012 and there have been no changes in the County’s MS4 since 2012, the County should still not meet the Petition Criteria for Factor 4.

**Factor 5: Is the municipal separate storm sewer physically interconnected to another, already regulated municipal storm sewer?**

The status of the County’s MS4 in the unincorporated PAUGA has not changed since 2011; no new County MS4 ditches and curbs and gutters have been added since Ecology’s field survey in 2011 and decision in 2012 that we did not meet the Phase II criteria.

The western and southern parts of the unincorporated PAUGA are still sparsely populated. Ecology's 2012 concerns that "if the area were to develop without stormwater management, contributions to the Port Angeles MS4 could become substantial" have not occurred since there has been limited development in the unincorporated PAUGA. As shown by the population numbers, there has not been much growth since 2012. The northeastern part of the UGA has been highly developed since before becoming part of the UGA and future development in that area is limited.

Moreover, any major development in the unincorporated PAUGA has been required through SEPA to use the 2005 or later Ecology manuals. Examples of development that have been required to use the 2005 or later Stormwater Management Manual for Western Washington (SWMMWW) for their development are EZ-Pawn and Price Ford (See Figure 4). The County also sends to the city of PA any major development plans for review in concert with the County-wide Planning Policies.

The 2012 letter mentions that the City believes that more development will occur in the unincorporated UGA rather than the City because of its greater requirements. Having the unincorporated PAUGA bear the same burden in increased fees and costs as the city of PA will not tend to increase development in the City. Rather it is likely that development will not occur in the PAUGA but instead will move to the other cities, other UGAs, and LAMIRDS, which will not have the costs associated with being a Phase II. This could lead to more urbanization in the unincorporated non-UGA area, which is contrary to the Growth Management Act. At least one of our major engineering companies has said that they plan not to provide services for properties in the PAUGA because of all the costs associated with the Phase II requirements.

**Factor 6: Are the water quality impacts of the municipal separate storm sewer already being addressed under other regulations or programs?**

There has been a change in the DCD Director, Public Works Director, and BOCC since 2011 and 2012. The DCD Director, Public Works Director and County Engineer, and BOCC are all supportive of stormwater management and bettering water quality. In 2017 the DCD Director hired staff to plan and develop stormwater management strategies and a work plan. Special sessions concerning stormwater management were brought to the BOCC at their request and to the Clallam County Planning Commission this Fall 2018. The Planning Commission's Work Plan for 2019 includes review of illicit discharge, clearing and grading, and stormwater ordinances and updating of the draft Comprehensive Stormwater Management Plan, Outreach Plan, and Small Project Drainage Manual: the plans and ordinances recommended by Ecology in 2012

Factor 6 states that "a designated "regulated MS4" may be determined to be exempt from the requirement for permit coverage if the stormwater runoff is effectively addressed by other water quality programs". The Clallam County Public Works Department is a member of the Regional Road Maintenance Program and uses the WSDOT 2014 Highway Runoff Manual and the February 2016 Supplement. According to Ecology's website, "Ecology approved the WSDOT Highway Runoff Manual as functionally equivalent to the Stormwater Management Manual for Western and Eastern Washington." The following paragraphs indicate how stormwater and water quality are addressed in this and other programs.

**Clallam County Public Works**

**Regional Road Maintenance Program:**

The Regional Road Maintenance Program’s mission is to improve roadway safety and focuses on maintenance of the transportation system following the Endangered Species Act. The program applies to roadway maintenance operations, utility maintenance, maintenance of stormwater facilities, and other structure maintenance within the right-of-way (ROW). The program was created in 1999 due to new listings under the Endangered Species Act. Clallam County joined the group in 2001. All agencies (WSDOT and interested counties and cities) involved in the group are covered under the NMFS 4(d) Rule of the Endangered Species Act.

The program is comprised of three parts. Part 1 is the Regional Program Elements. There are 10 program elements Public Works follows that are essentially the program itself (attending the forums, reporting, compliance monitoring, training, etc.). Part 2 is the BMPs. Each BMP *category* is defined, has a desired outcome, and provides a list of site-specific BMPs that are proved effective for specific goals or outcomes. Part 3 is the application process allowing Clallam County to participate in the program and maintain coverage under the ESA 4(d) rule and Section 7 take exemptions.

The “manual” consists of Endangered Species Act Program *Guidelines* (Parts 1 and 2: program elements and BMPs). The Regional Forum continues to improve the *Guidelines* through Adaptive Management (Program Element 6).

The guidelines are intended to maintain the transportation system while conserving aquatic habitat conditions. For example, one guideline, “Cleaning Enclosed Drainage Systems” has the following conservation outcomes:

1. Street sweeping reduces sediments from entering storm drains and waterways.
2. Maintaining and cleaning enclosed drainage systems removes sediments.
3. Maintaining and cleaning oil/water separators reduces pollutants and sediments.
4. Maintaining and cleaning retention/detention facilities and connector ditches removes pollutants and sediments.
5. Repair and restoration of an enclosed drainage system facility ensures storage capacity.
6. Mowing bio-swales and cleaning water quality vaults removes pollutants and sediments.
7. Culvert repair and rehabilitation reduces erosion.
8. Outfall maintenance reduces erosion.

Each maintenance category within the *Guidelines* has activities that contribute to the conservation outcomes listed for that category.

The BMP outcome maintenance matrix provides a suite of BMPs to choose from. Below is an example for “Cleaning Enclosed Drainage Systems”:

**OUTCOME CATEGORY**

**BMPs (including, but not limited to)**

- |                                      |   |  |
|--------------------------------------|---|--|
| 1. Filter/Perimeter Protection       | – | coir log, continuous berm, curb inlet sediment trap, etc.          |
| 2. Keep Water from Work Area         | – | aqua barrier, cofferdam, dewatering, etc.                          |
| 3. Reduce Potential for Soil Erosion | – | back slope planting, construction road access, filter fabric, etc. |

The RRMP Part 1 BMPs apply the principles of erosion and sedimentation control such as: scheduling to reduce erosion hazards, protecting areas from stormwater runoff, stabilizing disturbed areas, minimizing



runoff velocities, reducing on site erosion and sedimentation, and inspecting and maintaining BMPs. Part 2 provides a list (matrix) of effective site-specific BMPs for the desired outcomes. Compliance monitoring, staff BMP training, reporting, and adaptive management are important elements that make this program successful.

Monthly meetings are held with all County road supervisors to document and discuss the month's BMP activities. A typical month may include 30 - 40 different maintenance activities, such as road sweeping, ditch cleaning, culvert cleanout, shoulder grading, etc., all with BMPs applied. It should also be noted that these BMPs are followed whenever County maintenance crews do projects, whether maintenance or new construction. This information is included and submitted in a quarterly report.

### **WSDOT 2014 Highway Runoff Manual and 2016 supplement:**

The County Public Works Department, which includes the Road Division, uses the WSDOT 2014 Highway Runoff Manual and the February 2016 Supplement. According to Ecology's website, "Ecology approved the WSDOT Highway Runoff Manual (HRM) as functionally equivalent to the Stormwater Management Manual for Western and Eastern Washington".

Similar to Ecology's 2014 SWMMWW, the HRM sets minimum requirements for stormwater planning, runoff treatment, flow control, infiltration facilities, and low impact development performance standards. Treatments options are reviewed and updated continually, and are approved by Ecology.

- The HRM contains BMPs that more suitable for linear projects that are not found in the SWMMWW (per county road engineers via HRM training).
- Being a rural county, there is generally a greater opportunity for infiltration as opposed to more built-out areas.
- Examples of common treatment infiltration techniques Public Works uses; some LID BMPs can achieve both treatment and flow control:
  - Vegetated filter strip: treatment
  - Compost amended vegetated filter strip (CAVFS): treatment and flow control (infiltration)
  - Natural dispersion: treatment and flow control (infiltration)
  - Bioswale: treatment - can also get flow control if amend the soil
  - Media filter drain: treatment

### **NPDES General Construction Stormwater Permit**

Clallam County projects one acre or greater are required to obtain an NPDES General Construction Stormwater Permit. The NPDES permit requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) to control the effects of runoff during construction. Sites are inspected and monitored until final stabilization. This is in addition to the requirements of the 2014 Highway Runoff Manual and 2016 Supplement.

### **Road Right-of-Way Permits**

Permits are required for any work done within County-owned right-of-way. This includes driveway access and utility construction. These permits require conditions for erosion control. This may include

reseeding and mulching for utility trench construction, or the laying of quarry spalls for road approaches onto County roads.

### **Other Permits**

All County projects must follow the conditions and guidelines set forth in various federal, state and local laws. These conditions may set timing restrictions, in-water work windows, and mitigation and erosion control measures. The following is a brief list of some of these permits:

- Hydraulic Project Approval issued through WDFW
- Shoreline permit issued through Department of Community Development
- Critical Areas Certificate of Compliance
- SEPA review
- Corps of Engineers Nationwide Permit
- Biological Assessment and Biological Opinion (done for ESA requirements)

### **Road Inspections**

The Road Division reviews permanent stormwater facilities from an operational and maintenance perspective several times each year. Road crews routinely conduct inspections for problem areas (i.e. “storm patrol”) and apply corrective measures. These inspections also include unauthorized discharges into County ditches, such as a silt-laden driveway ditch flowing into a County road ditch. In such cases the owners are notified and required to fix the problem.

### **CESCL training**

Seven of Clallam County Road Division staff are CESCL certified. Clallam County Public Works is not required to have this training: it is only optional since many of our contractors have CESCL certified staff on site. However, staff is required to be trained under the Regional Roads Maintenance Program Track 3f and 3w BMP training).

### **Inventory**

Starting in August 2012, DCD natural Resources staff has been inventorying culverts in Clallam County according to WDFW’s protocols found in Fish Passage Barrier and Surface Water Diversion Screening and Prioritization Manual. All the culverts have been mapped with some prioritized sites being evaluated in greater detail. Public Works inventories County stormwater conveyance infrastructure and stormwater BMPs on County property.

### **Stormwater and Water Quality Regulations and Policies:**

Current stormwater regulation is more robust than appears in the 2012 Ecology letter. Some of the main documents that deal with stormwater management, illicit discharge, clearing and grading, water quality, and critical areas policies and regulations are briefly described below. Appendix 2 provides more detail on the policies and regulations.

- Clallam County Public Works (CCC 5.100.240) requires approval of a stormwater drainage plan prior to obtaining a building permit, road access permit, and any actions that may impact stormwater runoff.
- New large-scale development in PAUGA has been conditioned through SEPA to comply with the 2005 or later Ecology stormwater manual. (Chapter 27.01, Clallam County Environmental Policy).
- After extensive public review, the Clallam County BOCC unanimously approved the Shoreline Master Plan (SMP) Update in October 2018. The BOCC voted 3:0 for approval.
  - CC SMP 5.2 contains policies and regulations on clearing, grading, and filling and requirement of TESC.
  - CC SMP 5.4 has policies and regulations for water quality and water quality management including stormwater management and illicit discharge regulations. The tiering in the SMP follows what was recommended in the draft Comprehensive Stormwater Management Plan. It also states the “a stormwater management site plan prepared by a licensed engineer must be in accordance with the most current edition of the Ecology Stormwater Management Manual for Western Washington, as amended”. This section also has regulations prohibiting illicit non-stormwater discharges to the stormwater system.
  - SMP contains other protection standards such as buffers from wetlands, streams, and landslide hazard areas.
- Starting in April 2017, a group of city and County officials and staff updated the County-wide Planning Policies. These policies under the Environment chapter now include illicit discharge prohibition, water quality protection, and stormwater policies. The County-wide Planning Policies were adopted on Oct. 2, 2018.
- The County’s Critical Areas code (Chapter 27.12 CCC) has provisions related to stormwater management in addition to other protection standards such as buffers from wetlands, streams, and landslide hazard area (CCC27.12.200, 27.12.215(6), 27.12.215(13), 27.12.300, 27.12.315(8), 27.12.315(31), 27.12.320(3), CCC 27.12.325(2), CCC 27.12.415(3), CCC 27.12.420(2), CCC 27.12.515(3), CCC 27.12.615(7), and CCC 27.12.815. More details are in Appendix 2.
- Clallam County Comprehensive Plan (Chapter 31.04 CCC) includes many policies on stormwater management, pollution prevention, and public involvement and education. Appendix 2 contains mostly excerpts specific to the PAUGA.
  - CCC 31.04.105 Excerpts pf public facilities and services
  - CCC 31.04.145 Excerpts of natural environment
  - CCC 31.04.155 Excerpts of public involvement and education
  - CCC 31.04.310 Excerpts of comprehensive Plan Policies for Port Angeles UGA

### **Special Actions to Address Local Water Quality Problems**

Clallam County Public Works supports Streamkeepers volunteer monitoring and education programs. When funding allows, Streamkeepers collects B-IBI samples to assess stream health; the latest B-IBI sampling occurred in August and September of 2018. Streamkeepers also provides trend sampling and targeted sampling help for the Clallam County Environmental Health Pollution Identification and

Correction (PIC) Program. Streamkeepers, Environmental Health, and Water Resources produce and distribute educational brochures/materials on water quality, water quality protection, and stormwater. See examples in Appendix 3. Clallam County Environmental Health also works on issues related to stormwater through their septic, shellfish, drinking water, and PIC programs. The Clallam County DCD also maintains a website on stormwater management with links to regulations and educational materials. DCD Code Enforcement was reinitiated in 2015 to deal with egregious land use and water quality issues. They have been instrumental to the PIC program, junk vehicle program, and on-site septic program. Other entities such as the Clallam Conservation District, WSU Extension, League of Women Voters provide local outreach and education on such topics as water resources, water quality protection, stormwater, LID, etc.

In 2016 Clallam County had the Courthouse parking lot retrofitted with LID BMPs not only to manage stormwater more effectively but to use as a teaching tool that LID is supported by the County and is feasible for the citizens of Clallam County. Besides the actual installed BMPs of bioretention swales and permeable pavement, the project included signage and a brochure about stormwater and how the BMPs manage and treat the stormwater. See Appendix 4 for pictures of the courthouse stormwater improvements.

### **Summary:**

In 2012 Ecology decided that the unincorporated PAUGA did not meet the Petition Criteria and should not be a Phase II Permittee. Since the 2011 evaluation these conditions have remained the same:

- There have been no additions to the MS4 structures, which consists of vegetated roadside ditches and curb and gutter. The MS4 is discrete and often disconnected.
- The estimated population associated with the accumulated MS4s is below the 1,000 people threshold and the 0.44% growth rate is substantially below the 15% high growth rate over the last 10 years. The data obtained from OFM and the County's evaluation indicates that MS4 does *not* serve a substantial population.
- The MS4 infrastructure is operated and maintained under the Regional Roads Maintenance Program and the WSDOT 2014 Highway Runoff Manual and the February 2016 Supplement, which is functionally equivalent to the Western Washington Stormwater Management Manual and better for linear features such as roads
- The well-drained soils and the precipitation of 25 inches/yr of rain remain the same.
- The County continues to use Streamkeepers to collect the Benthic Index of Biotic Integrity (B-IBI), the widely recognized metric to comprehensively assess pollution in stream ecosystems data, to inform the County about stream health. The B-IBI data shows mostly excellent B-IBI and good results for Dry Creek, Tumwater, Valley Creek, Peabody, White, and Ennis Creeks before entering the city of Port Angeles. Except for Lees Creek, the other creeks indicate better water quality conditions in the unincorporated area than in the city of Port Angeles. The disturbed riparian habitat and Highway 101 are the likely major contributors to pollutants in Lees Creek and not the County's MS4 structures.
- The water quality data available for review in 2012 is mainly the same data available for review in 2018. Data considered for the 303(d) listing is the same data that was available for the 2011

## Clallam County Department of Community Development

evaluations since EPA has approved the listing as the 2012 303(d) list to include data collected only through May 1, 2011. There is no TMDL for the Port Angeles area.

- The unincorporated PAUGA is very rural. 76% of the acreage is greater than 1 acre with 55% of the acreage greater than 2.5 acres.
- Clallam County continues to be supportive of stormwater management.

There have been improvements since the 2011 evaluation:

- The population adjacent to the MS4 has decreased to 930 and if the occupancy rate as recommended by OFM is applied, then the estimated population is 853.
- There has been a decrease in effective impervious surfaces. From November 2011 through December 31, 2017, almost 98,000 sq. ft. of impervious surfaces in the unincorporated PAUGA were demolished. Figure 3 shows an example of a demolition with a large decrease in impervious surfaces at one of the sties. During that time period only about 31% of that amount has been replaced on those parcels.
- Large scale projects have been required to use the 2005 or higher Ecology SWMMWW as a condition of SEPA
- Stormwater LID BMPs such as a rain garden and pervious pavement were installed in 2015 at the Clallam County Courthouse parking lot (Clallam County Courthouse Retrofit Project) as an education and outreach example, demonstrating the County's support of stormwater management and LID BMPs. Other forms of outreach and education have been developed including brochures and signage.
- The County has increased its CESCLs to 7 staff.
- Staff has recently applied for stormwater funding and continues to attend stormwater training and webinars.
- In late summer 2018 Streamkeepers collected more B-IBI samples across the County with many occurring in the PAUGA.
- County has a Pollution Identification and Correction Program (PIC).
- There is more political will to have updated stormwater management. The Director of Community Development, Public Works Director and County Engineer, and the Clallam County Board of County Commissioners have publically expressed their support of stormwater management.

Since conditions have remained the same or improved from Ecology's 2012 evaluation, the County believes that just like in 2012 the unincorporated PAUGA does **not** merit NPDES coverage at this time.

With the change in political will and staffing, Clallam County has moved forward to update stormwater management including developing water quality and stormwater policies and regulations for the entire County. Progress has been made with requiring the 2005 or higher Western Washington Stormwater Manuals for large scale development through SEPA conditioning; including water quality, illicit discharge prohibition, and stormwater policies in the recently adopted Clallam County-wide Planning Policies; clearing, grading, and filling regulations (CC SMP 5.2) and water quality and water management including stormwater management and illicit discharge regulations (CC SMP 5.4) in the shoreline jurisdiction in the newly BOCC approved Shoreline Master Plan (Oct. 2018), and starting stormwater management regulation discussions this Fall 2018 with the Clallam County Planning Commission and

Clallam County Department of Community Development

including an illicit discharge, clearing and grading, and stormwater ordinances and draft Comprehensive Stormwater Management Plan, Outreach Plan and Small Project Drainage Manual on their 2019 Work Plan.

At this point it would be counterproductive for the County to spend its limited resources on an MS4 with 930 people or less and 0.3% of the County acreage when we are in the process of protecting water quality for the entire unincorporated County with a population of 44,685. If the County does not progress at a reasonable pace or obtain its goals for updated stormwater management, Ecology as stated in its 2012 letter “ according to federal regulations, ... can require permit coverage at any time if municipal discharges are a significant contributor to impairment of water quality”.

**References:**

Halloin, Louis J., Soils Survey of Clallam County Area, Washington, USDA, Soil Conservation Service, 1987.

US EPA letter to Ms. Heather Bartlett of Washington Department of Environmental Quality, dated July 22, 2015.

Sincerely,



Mary Ellen Winborn, Director  
Clallam County Dep't of Community Development



Carol Creasey  
Clallam County Hydrogeologist

- CC. Vince McGowan, Program manager of Development Services Section  
Angela Vincent, Regional Permit Writer  
Chris Montague-Breakwell, Watershed Resources Unit Supervisor

Figure 1

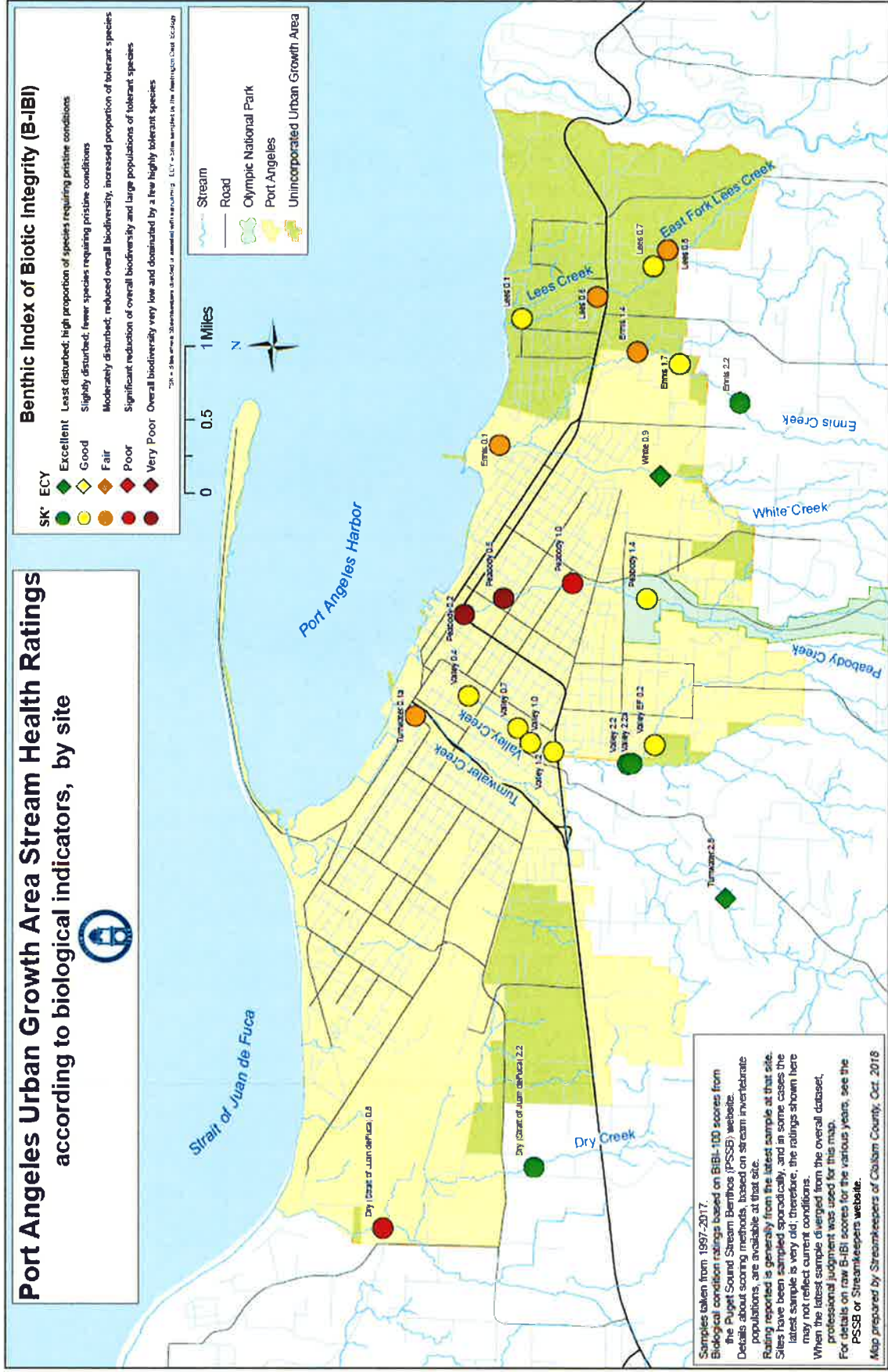




Figure 2 –Clallam County MS4 in the PAUGA

MS4-Vegetated roadside ditch (South Bay in unincorporated PAUGA)





MS4-Curb and gutter (Monroe Road in Unincorporated PAUGA)



Figure 3—Example of large demolition at the Monroe School that reduced impervious surfaces.







Figure 4—EZ Pawn and Price Ford (Examples of SEPA Conditioned Permits in Unincorporated PAUGA).





Price Ford  
(in Unincorporated PAUGA)



# APPENDIX 1—Ecology 2012 and 2018 letters and Clallam County 2018 letter



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000  
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April 20, 2012

The Honorable Jim McEntire  
The Honorable Mike Chapman  
The Honorable Mike Doherty  
Clallam County Board of Commissioners  
223 East 4th Street, Suite 4  
Port Angeles, WA 98362-3000

**RE: Evaluation Results for Western Washington  
Phase II Municipal Stormwater Permit**

Dear Commissioners McEntire, Chapman, and Doherty:

The Washington Department of Ecology (Ecology) has completed an evaluation of the Clallam County unincorporated Urban Growth Area (UGA) of the city of Port Angeles (Port Angeles) for coverage under the Western Washington Phase II Municipal Stormwater Permit (Phase II Permit). Ecology has made a determination that the unincorporated Clallam County UGA for Port Angeles does not meet the criteria for permit coverage. Ecology will not be listing Clallam County as a new permittee in the Phase II Permit to be reissued in July 2012.

Ecology appreciates the cooperation of Clallam County during the evaluation by meeting, providing information, and assisting Ecology staff on a field visit. Although Clallam County does not currently meet the criteria for permit coverage, Ecology will be required to evaluate Clallam County for coverage when the permit is reissued in 2018. In addition, according to federal regulations, Ecology can require permit coverage at any time if municipal stormwater discharges are a significant contributor to impairment of water quality.

Based on our evaluation, Clallam County has a good stormwater management plan; Ecology has the following recommendations:

- Finalize and implement the *Clallam County DRAFT Comprehensive Stormwater Management Plan*. This plan was developed with broad stakeholder involvement. It contains many elements of successful Phase II Permit programs and is tailored to the unique characteristics of Clallam County. Key initial elements to adopt include:
  - Clearing and grading ordinance.
  - New code to prohibit illicit discharges to the stormwater conveyance system.



The Honorable Jim McEntire  
The Honorable Mike Chapman  
The Honorable Mike Doherty  
April 20, 2012  
Page 2

(Ecology's recommendations continued)

- o Updated requirements for drainage design and review including:
  - A stormwater design manual equivalent to the *2005 Ecology Stormwater Management Manual for Western Washington*. Consider future adoption of the 2012 version of this manual.
  - Finalize and adopt the *Draft Clallam County Small Project Drainage Requirements and Technical Guidance Manual*. This manual provides a number of clear and effective options for managing stormwater on small sites in the county.

A copy of the criteria used in the evaluation is enclosed. In the evaluation, Ecology considered information related to population growth, impaired water bodies, and the status of current stormwater management, as well as the potential for discharges from the MS4 to contribute pollutants to surface waters of Washington State.

If you have questions about this determination or would like technical assistance to address our recommendations, you may contact Vincent McGowan (Regional Municipal Stormwater Specialist) at (360) 407-7320, or [vincent.mcgowan@ecy.wa.gov](mailto:vincent.mcgowan@ecy.wa.gov), or me at (360) 407-6460, or [bill.moore@ecy.wa.gov](mailto:bill.moore@ecy.wa.gov).

Thank you again for your cooperation in the evaluation.

Sincerely,



Bill Moore, P.E.  
Program Development Services Section Manager  
Water Quality Program

cc: Sally Toteff, Ecology, SWRO Director  
Vincent McGowan, Ecology, SWRO

Enclosure





STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600  
(360) 497-6000 • TDD Only (Hearing impaired) (360) 497-6006

**January 17, 2007**

**Petition Criteria**

**The process to get additional areas covered under the permits**

The factors Ecology will consider in evaluating municipal separate storm sewers include, but are not limited to, the factors listed below. Ecology's evaluation will be on a case by case basis, and in the exercise of its discretion Ecology may rely on other factors to evaluate municipal separate storm sewers. The factors listed below are provided to give potential petitioners guidance regarding the factors Ecology will typically consider, but are not intended to restrict Ecology's exercise of its discretion.

**Factor 1: Does the municipal separate storm sewer discharge stormwater to impaired or sensitive waters?**

Ecology will consider whether the municipal separate storm sewer discharges to impaired or sensitive waters that need protection to maintain or restore uses.

- "Impaired waters" are Clean Water Act section 303(d)-listed water bodies.
- "Sensitive waters" include public drinking water intakes and their designated protection areas; designated public swimming areas; shellfish beds; State-designated Outstanding Resource Waters; National Marine Sanctuaries; State Aquatic Reserves; and waters determined to be critical habitat for threatened or endangered species.

Ecology will also consider whether stormwater management practices are likely to contribute to the necessary protective and/or restoration measures for the water body of concern, e.g. if the impairment is due to a constituent of concern in stormwater.

Constituents of concern in stormwater typically include: arsenic, cadmium, copper, chromium, lead, zinc, heat, oil and grease, organic toxins, oxygen-demanding organics, nutrients, sediments, bacterial/viral agents and other pathogens.

**Factor 2: Is the municipal separate storm sewer a significant contributor of pollutants to waters of the United States?**

Ecology will consider whether the activities that take place in the municipal separate storm sewer contribute a loading of pollutants that are considered to be sufficient to cause or exacerbate the deterioration of receiving water quality or instream habitat conditions. This consideration will be based on best available science and readily available information. The types of information or metrics that may be considered and applied include, but are not limited to:

- Water quality monitoring data;
- Landscape metrics such as total impervious surface area, road network density, or number of stream crossings by roads;
- Quantification of the vehicular traffic in the municipal separate storm sewer at levels that would correspond to a high pollutant loading in stormwater discharges;
- Other indications of increased potential for stormwater pollutant loading, including a large non-resident population (such as seasonal or year-round tourism, university students, adjacent military bases, or other types of commuters) or high-use commercial traffic areas.

**Factor 3: Does the municipal separate storm sewer serve a substantial population or area?**

Management of stormwater runoff from growing municipal separate storm sewers is a primary goal of the regulations. High growth may be measured by a rate of increase in population, or directly by the number of people added, or by the increase in the amount of impervious surfaces in the municipal separate storm sewer. Ecology will evaluate whether the municipal separate storm sewer has experienced high growth by one or more of the following measures:

- Residential population has grown or is projected to grow by a rate of 15% (the average rate of growth in Washington State from 1990-2000) or more within a 10 year period; this applies only to municipal separate storm sewers serving a minimum population of 1,000.
- The municipal separate storm sewer is projected to serve a population of 10,000 or more outside an Urbanized Area, or a population of 1,000 or more inside an Urbanized Area, when the next census takes place. (Note: Municipal separate storm sewers that met this criterion for the 2000 census have already been designated by Ecology as regulated municipal separate storm sewers.)
- The amount of total impervious area served by the municipal separate storm sewer has increased by a rate of 10% or more within a 10 year period; this applies only to municipal separate storm sewers serving a minimum population of 1,000.

Ecology's determination will be based on the best available information, including the latest U.S. Census Bureau or State of Washington Office of Financial Management data.

**Factor 4: Is the municipal separate storm sewer contiguously located to an already regulated municipal storm sewer?**

Potential impacts on a neighboring regulated municipality and shared water bodies will be considered for jurisdictions that are directly adjacent to an already regulated municipal separate storm sewer.

**Factor 5: Is the municipal separate storm sewer physically interconnected to another, already regulated municipal storm sewer?**

If a municipal separate storm sewer is physically interconnected to another municipal separate storm sewer that is regulated by the NPDES stormwater program and contributes substantially to the pollutant loading in the regulated municipal separate storm sewer, then it must be designated as a "regulated municipal separate storm sewer." Ecology will determine whether the physically interconnected municipal separate storm sewer contributes substantially to the pollutant loadings of the already regulated municipal separate storm sewer.

To determine whether a physically interconnected municipal separate storm sewer is a “substantial contributor” to the regulated municipal separate storm sewer, Ecology will consider the following factors and any other factors Ecology's determines are appropriate:

- The total contributing area of the candidate municipal separate storm sewer;
- What portion of the receiving regulated municipal separate storm sewer's discharge is contributed by the interconnected candidate municipal separate storm sewer; and/or
- What portion of the municipal stormwater discharge to the receiving water body is contributed by the interconnected candidate municipal separate storm sewer.

Factor 6: Are the water quality impacts of the municipal separate storm sewer already being addressed under other regulations or programs?

A designated “regulated municipal separate storm sewer” may be determined to be exempt from the requirement for permit coverage if the stormwater runoff from the municipal separate storm sewer is effectively addressed by other water quality programs. Ecology will consider, on a case-by-case basis, whether the stormwater runoff from a potentially designated “regulated municipal separate storm sewer” is effectively addressed under other regulations or programs.

Information in support of this criterion should be provided directly to Ecology by the candidate municipal separate storm sewer and should include a description of each of the following elements of the stormwater management program to prevent and minimize pollutant runoff:

- Public education and involvement: actions to promote greater understanding and support of stormwater management activities among various audiences within the local community and to involve them in the program planning process.
- Illicit discharge detection and elimination: actions to identify and reduce non-stormwater discharges to the municipal separate storm sewer.
- Construction stormwater runoff control: specific actions to prevent discharge of sediment and other construction-related pollutants from entering the municipal separate storm sewer.
- Post-construction stormwater management: specific actions to control stormwater runoff from new development and redevelopment projects.
- Pollution prevention and good housekeeping for municipal operations: specific actions to reduce pollutant loading in stormwater runoff from publicly-owned roadways, parking areas, maintenance and storage yards, waste transfer stations, parks, and other areas.
- Special actions to address local water quality problems, such as monitoring, retrofitting, or basin planning, being undertaken by the jurisdiction.
- Record-keeping and program evaluation to adaptively manage the program and report to the public on stormwater management activities.

The descriptions should include budget and staff allotments, scheduled inspection and maintenance activities, and copies of adopted ordinances or other rules supporting the actions.



STATE OF WASHINGTON

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August 1, 2018

RECEIVED  
CLALLAM CO. COMMISSIONERS

AUG 06 2018

*[Handwritten signature]* DOE

The Honorable Mark Ozias  
The Honorable Randy Johnson  
The Honorable Bill Peach  
Board of Clallam County Commissioners  
223 East 4<sup>th</sup> Street, Suite 4  
Port Angeles, WA 98362-3015

**RE: Results of Evaluation of the Unincorporated Port Angeles Urban Growth Area for Coverage under the Western Washington NPDES Phase II Municipal Stormwater Permit**

Dear Commissioners Ozias, Johnson, and Peach:

The Washington State Department of Ecology (Ecology) has completed an evaluation of the Clallam County unincorporated Urban Growth Area (UGA) of the City of Port Angeles (Port Angeles) for coverage under the Western Washington Phase II Municipal Stormwater Permit (Phase II Permit). Ecology has made a determination that the unincorporated Port Angeles UGA meets the criteria for permit coverage. We plan to list Clallam County as a new permittee in the Phase II Permit to be reissued in July 2019 for the coverage area of the unincorporated UGA of the City of Port Angeles.

The Phase II Permit authorizes discharges from a municipal separate storm sewer system (MS4) to a surface water of Washington State. Ecology has delegated authority from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) program (RCW 90.48.260). Ecology brought the City of Port Angeles under coverage in 2007 after evaluation as required by EPA federal rule. Ecology has determined that it makes programmatic and environmental sense to evaluate whether to apply the requirements of the Permit to the unincorporated UGA around the City of Port Angeles, as this area is targeted for growth and urbanization by its definition as a UGA.

In 2012, Ecology made the determination that the unincorporated Port Angeles UGA did not meet criteria for permit coverage. In our April 20, 2012 letter to County Commissioners communicating this agency decision, we recommended the County finalize and implement the *Clallam County DRAFT Comprehensive Stormwater Management Plan* and that the County adopt the following: a clearing and grading ordinance, new code prohibiting illicit discharges to the stormwater conveyance system, and updated requirements for drainage design and review (i.e., adopt the 2005 Ecology Stormwater Management Manual for Western Washington



(SWMMPWW); consider future adoption of the 2012 SWMMWW; and adopt the *Draft Clallam County Small Project Drainage Requirements and Technical Guidance Manual*. Clallam County has had six years to implement Ecology's 2012 recommendations. Unfortunately, the County has not finalized its *DRAFT Comprehensive Stormwater Management Plan* nor has it adopted drainage requirements for small projects, a clearing and grading ordinance or code prohibiting illicit discharges to the County MS4.

A copy of the 2007 Petition Criteria (modified 10/13/14) that Ecology used for this evaluation is enclosed. The County's no action on these 2012 recommendations is a factor in our decision to cover the unincorporated Port Angeles UGA under the Phase II Permit. As described in the Petition Criteria, Ecology weighed information on: impaired water bodies, interconnection to an existing area of coverage, population growth, the status of current stormwater management in the County, and the potential for discharges from the MS4 to contribute pollutants to surface waters of Washington State, in our evaluation of the Port Angeles UGA for Phase II coverage.

The Phase II Permit will reissue on July 1, 2019 with an effective date of August 1, 2019. This will be the effective date of coverage for the unincorporated Port Angeles UGA. As described in Chapter 43.21B RCW and Chapter 371-08 WAC, there is an opportunity for appeal. Appeals must be filed with the Pollution Control Hearings Board and served on the Department of Ecology within thirty (30) days of receipt of the final permit (to be reissued July 1, 2019).

As proposed in permit condition S1.D.2.b of the formal draft Phase II Permit slated for release for public comment in August 2018, the County must submit an application for coverage prior to or within 30 days of the permit effective date of August 1, 2019. The application is the *Notice of Intent (NOI) for Coverage under National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater General Permit*, which new permittees will access and complete through Ecology's WQWebPortal (more information available at: <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance>).

Additional information regarding the formal draft Phase II Permit available for public comment, as well as workshop and public hearing opportunities, can be found on Ecology's permit reissuance webpage: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Municipal-stormwater-general-permits/Municipal-stormwater-permit-reissuance>.

Under RCW 90.48.465, Ecology is authorized to assess annual fees to fund operations of the Water Quality Wastewater and Stormwater Discharge Program. Ecology will contact you with information on the fee when the final permit is issued.

Realizing that permit coverage brings challenges to a community, Ecology will provide all available information and resources to support the County's work. At this time, we can offer \$25,000 in grant funding, which must be spent by June 30, 2019 in order to prepare for permit implementation. Please contact Kyle Graunke at (360) 407-6452 or [kyle.graunke@ecy.wa.gov](mailto:kyle.graunke@ecy.wa.gov) if you would like to receive this funding.

Board of Clallam County Commissioners  
August 1, 2018  
Page 3

Please feel free to contact me at (360) 407-6460 with any questions, or you may contact Abbey Stockwell, the Phase II Permit Writer, at [abbey.stockwell@ecy.wa.gov](mailto:abbey.stockwell@ecy.wa.gov) or (360) 407-7221. Angela Vincent (Regional Municipal Stormwater Permit Planner) is also available to answer questions or provide assistance to prepare for coverage under the Phase II Permit. You may contact Ms. Vincent at (360) 407-6276 or [angela.vincent@ecy.wa.gov](mailto:angela.vincent@ecy.wa.gov).

Sincerely,



Vincent McGowan, Manager  
Program Development Services Section  
Water Quality Program

Enclosures: 2007 Petition Criteria  
April 20, 2012 Ecology Letter to County Commissioners

cc: Ross Tyler, Public Works Director  
Mary Ellen Winborn, Director of Community Development  
Carol Creasy, County Hydrogeologist  
Abbey Stockwell, Phase II Permit Writer  
Angela Vincent, Regional Municipal Permit Planner



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**January 17, 2007**

**Petition Criteria**

**The process to get additional areas covered under the permits**

The factors Ecology will consider in evaluating municipal separate storm sewers include, but are not limited to, the factors listed below. Ecology's evaluation will be on a case by case basis, and in the exercise of its discretion Ecology may rely on other factors to evaluate municipal separate storm sewers. The factors listed below are provided to give potential petitioners guidance regarding the factors Ecology will typically consider, but are not intended to restrict Ecology's exercise of its discretion.

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Ecology will also consider whether stormwater management practices are likely to contribute to the necessary protective and/or restoration measures for the water body of concern, e.g. if the impairment is due to a constituent of concern in stormwater.

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- Water quality monitoring data;
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- Quantification of the vehicular traffic in the municipal separate storm sewer at levels that would correspond to a high pollutant loading in stormwater discharges;
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- Residential population has grown or is projected to grow by a rate of 15% (the average rate of growth in Washington State from 1990-2000) or more within a 10 year period; this applies only to municipal separate storm sewers serving a minimum population of 1,000.
- The municipal separate storm sewer is projected to serve a population of 10,000 or more outside an Urbanized Area, or a population of 1,000 or more inside an Urbanized Area, when the next census takes place. (Note: Municipal separate storm sewers that met this criterion for the 2000 census have already been designated by Ecology as regulated municipal separate storm sewers.)
- The amount of total impervious area served by the municipal separate storm sewer has increased by a rate of 10% or more within a 10 year period; this applies only to municipal separate storm sewers serving a minimum population of 1,000.

Ecology's determination will be based on the best available information, including the latest U.S. Census Bureau or State of Washington Office of Financial Management data.

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To determine whether a physically interconnected municipal separate storm sewer is a "substantial contributor" to the regulated municipal separate storm sewer, Ecology will consider the following factors and any other factors Ecology's determines are appropriate:



- The total contributing area of the candidate municipal separate storm sewer;
- What portion of the receiving regulated municipal separate storm sewer's discharge is contributed by the interconnected candidate municipal separate storm sewer; and/or
- What portion of the municipal stormwater discharge to the receiving water body is contributed by the interconnected candidate municipal separate storm sewer.

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A designated "regulated municipal separate storm sewer" may be determined to be exempt from the requirement for permit coverage if the stormwater runoff from the municipal separate storm sewer is effectively addressed by other water quality programs. Ecology will consider, on a case-by-case basis, whether the stormwater runoff from a potentially designated "regulated municipal separate storm sewer" is effectively addressed under other regulations or programs.

Information in support of this criterion should be provided directly to Ecology by the candidate municipal separate storm sewer and should include a description of each of the following elements of the stormwater management program to prevent and minimize pollutant runoff:

- Public education and involvement: actions to promote greater understanding and support of stormwater management activities among various audiences within the local community and to involve them in the program planning process.
- Illicit discharge detection and elimination: actions to identify and reduce non-stormwater discharges to the municipal separate storm sewer.
- Construction stormwater runoff control: specific actions to prevent discharge of sediment and other construction-related pollutants from entering the municipal separate storm sewer.
- Post-construction stormwater management: specific actions to control stormwater runoff from new development and redevelopment projects.
- Pollution prevention and good housekeeping for municipal operations: specific actions to reduce pollutant loading in stormwater runoff from publicly-owned roadways, parking areas, maintenance and storage yards, waste transfer stations, parks, and other areas.
- Special actions to address local water quality problems, such as monitoring, retrofitting, or basin planning, being undertaken by the jurisdiction.
- Record-keeping and program evaluation to adaptively manage the program and report to the public on stormwater management activities.

The descriptions should include budget and staff allotments, scheduled inspection and maintenance activities, and copies of adopted ordinances or other rules supporting the actions.

**Submit Petitions to :**

Abbey Stockwell  
 Department of Ecology  
 P.O. Box 47600  
 Olympia, WA 98504-7600  
 Phone: (360) 407-7221; Fax: (360) 407-6426; E-mail: [abst461@ecy.wa.gov](mailto:abst461@ecy.wa.gov)



# Board of Clallam County Commissioners

223 East 4<sup>th</sup> Street, Suite 4  
Port Angeles, WA 98362-3015  
360.417.2233 Fax: 360.417.2493

Email: [commissioners@co.clallam.wa.us](mailto:commissioners@co.clallam.wa.us)

*Jim Jones, Jr. County Administrator*

**MARK OZIAS, District 1, Chair**  
**RANDY JOHNSON, District 2**  
**BILL PEACH, District 3**

File: A72

26 June 2018

Vince McGowan, Manager  
Program Development Services Section  
Water Quality  
WA Dep't. of Ecology  
PO Box 47600  
Olympia, WA 98504-7600

Re: Evaluation for Western Washington Municipal Stormwater Phase II General Permit Coverage

Dear Sir:

In January 2018, Clallam County Department of Community Development (DCD) and Clallam County Roads Department (Roads) were contacted to evaluate the possible coverage of the unincorporated areas of the Port Angeles Urban Growth Area (PAUGA) under the 2019 National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater General Permit. With Ecology's aid, Clallam County has been reviewing its stormwater status in regards to the Phase II NPDES General Permit criteria. At this time we believe that the characteristics of the unincorporated PAUGA do not merit NPDES coverage. The rest of this letter explains why the unincorporated PAUGA does not meet the permit requirements and provides additional information that Ecology has requested from the County.

### **Current Conditions:**

The County's Municipal Separate Storm Sewer System (MS4) structures consist of discrete, separated roadway ditches and curbs and gutters and does not include any sewer component. The status of the County's MS4 in the unincorporated PAUGA has not changed since 2011; no new County MS4 ditches and curbs and gutters have been added since Ecology's field survey in 2011. The County maintains these roadside stormwater conveyances in accordance with the Regional Road Maintenance Endangered Species Act Program. The Clallam County Road Department is a member of the Regional Road Maintenance Program and uses the WSDOT 2014 Highway Runoff Manual and the February 2016 Supplement. According to Ecology's website, "Ecology approved the WSDOT Highway Runoff Manual as functionally equivalent to the Stormwater Management Manual for Eastern Washington."

New development and redevelopment is required to provide for stormwater management. County code requires stormwater management to follow the 1992 Ecology Stormwater Manual or as amended. Many of the consultants that work in Clallam County now choose to use the 2005 and 2012 Manuals and the 2014 amendment for stormwater projects.

According to the Office of Financial Management (OFM) the population in the unincorporated PAUGA has decreased since 2011; it does not meet the 1,000 people per MS4 threshold or the 15% over a ten year period of high growth rate in the petition criteria. See the section titled MS4 Estimated Population Served for more detailed information on population estimates. The data obtained from OFM and the County's evaluation indicates that MS4 does *not* serve a substantial population.

The County continues to recognize the importance of stormwater management and to make progress toward a formal stormwater management program:

- a. Clallam County Department of Community Development (DCD) hired Carol Creasey back to its department to bring stormwater management and new regulations to the forefront. Creasey was the project manager who spearheaded the draft Stormwater Management Plan, draft Small Project Drainage Manual, draft outreach plan, and conceptual design/installation of stormwater Low Impact Development (LID) Best Management Practices (BMPs) for the Clallam Courthouse Stormwater Retrofit Project from 2010-2014.
- b. Stormwater LID BMPs such as a rain garden and pervious pavement were installed in 2015 at the Clallam County Courthouse parking lot as an education and outreach example, demonstrating the County's support of stormwater management and LID BMPs.
- c. Clallam County plans to review a draft clearing and grading ordinance with the Planning Commission in October 2018, leading to public hearings with the Planning Commission and Clallam County Board of County Commissioners.
- d. Clallam County proposed a Near Term Action (NTA) to the Puget Sound Partnership to obtain funding (NTA2018-0221 Clallam County Stormwater Management Plan, Regulations, and Outreach) in May 2018. In it Clallam County proposes to update its draft stormwater management plan, draft Small Project Drainage Manual, and stormwater and development standards. The objective is for Clallam County to have a workable, comprehensive, updated Stormwater Management Plan and fiscally and politically sustainable program that includes a stormwater strategy, regulations, staff and engineer training, and citizen outreach.
- e. Stormwater policies have been proposed and accepted as part of the 2018 update of the Countywide Planning Policies for Clallam County.
- f. Clallam County staff from DCD and Roads received Certified Erosion and Sediment Control Lead (CESCL) training.
- g. Clallam County has followed through on a subset of Final Recommendations of the Clallam County Stormwater Work Group listed in the draft Clallam County Stormwater Management Plan:
  - Under **Public Education and Outreach** recommendations: Clallam County has performed outreach and education concerning stormwater through signage about stormwater and stormwater LID BMPs used in the Clallam County Courthouse Stormwater Retrofit project (2016), a brochure describing the BMPs (Clallam County Courthouse Low Impact Development (LID) Parking Lot Retrofit), and three additional brochures (Clean Water is Everybody's Business, Only Rain Down the Roadside Ditches, and Keep Clallam Waters Clean).
  - Under **Development and Redevelopment** recommendations: 1) DCD is in the process of adopting a clearing and grading ordinance. Plans are to bring the ordinance forward to the Planning Commission in October 2018. ; and 2) the County increased densities in the Carlsborg UGA in 2016, which follows the recommendation for the County to reduce development pressures and related stormwater impacts in rural areas by increasing densities in existing Urban Growth Areas.

- Under the **Source Control/Pollution Prevention** recommendations: 1) Clallam County Roads Department continues to meet monthly and review County maintenance projects that require BMPs and a record of their status and effectiveness is maintained.; 2) Roads has mapped all the culverts with some prioritized sites being evaluated in greater detail.; 3) Roads reviews permanent stormwater facilities from an operational and maintenance perspective several times each year.; 4) Roads uses the Regional Road Maintenance Program Guidelines as their written plan describing their practices for inspection and maintenance, recording, and monitoring.; and, 5) Clallam County Environmental Health works on stormwater issues through its pet waste, septic, shellfish, and drinking water programs.
- Under **Long term Compliance** recommendations: 1) County drainage plan requirements that are attached to building permits are intended to limit or eliminate discharges from non-County sources into roadside ditches.; and, 2) County Roads Dep't. maintenance procedures adhere to the BMPs adopted by the Regional Road Maintenance Program. The County does not currently monitor privately maintained stormwater facilities.
- Under the **Sub-Basin Assessments** recommendation, the County has sought funding from the Puget Sound Partnership to assess prioritized sub-basins in the County (NTA2018-0087).

County DCD and Roads evaluated new development and redevelopment along the County's MS4. From November 2011 through December 31, 2017, there has been almost 98,000 sq. ft. of impervious surfaces in the unincorporated PAUGA removed through demolition. During that time period only about 31% of that amount has been replaced on those parcels.

#### **Additional Information for Evaluation:**

##### **Stream Water Quality**

Streamkeepers, a County supported volunteer monitoring and education program, has collected Benthic Index of Biotic Integrity (B-IBI) in the Port Angeles streams since 1998. B-IBI is an indicator of stream health. The B-IBI data shows that for the majority of streams in this area there is no impairment in the portions of the creeks in the unincorporated areas whereas there is impairment within the Port Angeles city limits. This is the pattern seen for Dry Creek, Valley Creek, Peabody/White Creek, and Ennis Creek. Lees Creek B-IBI data shows impairment. Streamkeepers' water quality data indicates pollutants of dissolved oxygen and bacteria in Upper Lees Creek in the UGA. Based on visits to the watershed and comparison to other local watersheds, these pollutants likely stem from disturbed riparian habitat and not from the County MS4. Lower Lees Creek water quality data indicates pollutants such as bacteria and turbidity. Lees Creek receives significant discharge from the WSDOT stormwater system along US Highway 101 and is the major likely contributor.

##### **MS4 Estimated Population Served**

According to OFM's Small Area Estimate Program (SAEP), the unincorporated Port Angeles UGA experienced a reduction in population from 2010 to 2017 with a -0.93 % growth rate. ([https://www.ofm.wa.gov/sites/default/files/public/legacy/pop/smallarea/data/xlsx/saep\\_uninc\\_uga.xlsx](https://www.ofm.wa.gov/sites/default/files/public/legacy/pop/smallarea/data/xlsx/saep_uninc_uga.xlsx)) For the ten year period of 2008 through 2017, the growth rate was -1.70%, which is far below the 15% over a ten year period of high growth rate provided in the petition criteria.

Using the map provided by Ecology from their November 2011 field survey of the County's MS4 infrastructure, the County estimated the current total population served by the MS4. According to the Clallam County Road Department, there have been no changes or additions to the MS4 curb & gutter and ditches since the November 2011 field survey. The population estimate protocol based on Ecology's 2011 protocol included:

- Counting residential structures adjacent to the County's MS4 curb & gutter and ditches (based on Ecology's 2011 field survey map) using parcels from our GIS system and the number of residential housing units from the Assessor's Office.

- Ground truthing the 2011 Ecology map where clarification was needed.
- Applying a household size of 2.193100 residents/household with an occupancy rate of 0.917180, as recommended by OFM's SAEP from the 2017 Estimate Review Worksheet of the City of Port Angeles.
- Certain exclusions were used following Ecology's method from 2011:
  - Residents adjacent to County rights-of-way with no visible MS4 (no ditches or other stormwater infrastructure)
  - Residents of parcels adjacent to private roads
  - Residents of parcels adjacent to US 101 (WSDOT right-of-way) and W. Lauridsen Blvd. (City of Port Angeles right-of-way), unless parcels were large and topography indicated flow away from US 101
  - Residents of parcels not discharging to surface waters (where known)

The estimated population as of June 2018 was 930 for the unincorporated PAUGA adjacent to County MS4 infrastructure. If you apply the occupancy rate as recommended by OFM, then the estimated population is 853. This is under the minimum population threshold of 1,000 provided in the petition criteria.

Additionally, from November 2011 through December 31, 2017, there has been almost 98,000 sq. ft. of impervious surfaces in the unincorporated PAUGA removed through demolition. During that time period only about 31% of that amount had been replaced on those parcels.

### Summary

The County believes that the characteristics of the unincorporated PAUGA do **not** merit NPDES coverage at this time:

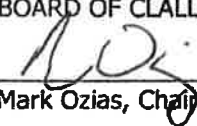
- 1) The MS4 infrastructure (roadside ditches and curb and gutter) in the unincorporated PAUGA is discrete and often disconnected. There have not been any additions to the MS4 structures from Ecology's last evaluation in 2011.
- 2) The estimated population associated with the accumulated MS4s is below the 1,000 people threshold and the negative growth rate is substantially below the 15% high growth rate over the last 10 years.
- 3) The MS4 infrastructure is operated and maintained under the Regional Roads Maintenance Program and the WSDOT 2014 Highway Runoff Manual and the February 2016 Supplement, which is functionally equivalent to the Stormwater Management Manual for Eastern Washington.
- 4) Except for Lees Creek, the other creeks indicate better water quality conditions in the unincorporated area than in the city of Port Angeles. The disturbed riparian habitat and Highway 101 are the likely major contributors to pollutants in Lees Creek and not the County's MS4 structures.
- 5) County DCD and Roads have already begun the process of bringing stormwater management back to the public's attention from our last attempt five years ago through such activities as outreach and education, hiring staff, the Clallam Courthouse Stormwater Retrofit Project, proposals for stormwater management funding, staff training, and plans for a clearing and grading ordinance.

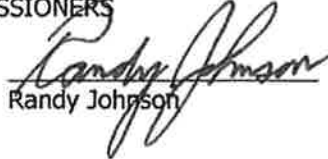
Additionally, the unincorporated PAUGA is less than 0.5% of the entire County. It would be more beneficial for the County to spend the limited funds available to establish a stormwater management program for the entire County rather than for less than a percent of the County and end up with a stormwater program in the unincorporated PAUGA and another form of stormwater management for the rest of the County.

We appreciate the opportunity to provide our perspective and the assistance Ecology and OFM staff have provided. If you should require additional clarification or comment for your evaluation, please contact DCD and Roads staff.

Sincerely,


BOARD OF CLALLAM COUNTY COMMISSIONERS

  
Mark Ozias, Chair

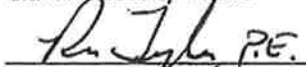
  
Randy Johnson

  
Bill Peach

Clallam County Dep't. of Community Development

  
Mary Ellen Winborn, Director

Clallam County Public Works

  
Ross Tyler, Director and County Engineer

- cc. Angela Vincent, Regional Permit Writer  
Abbey Stockwell, Phase II Permit Writer  
Chris Montague-Breakwell, Watershed Resources Unit Supervisor



# APPENDIX 2-Excerpts of Clallam County Policies and Regulations



**CLALLAM COUNTY PUBLIC WORKS - ROAD DIVISION--CCC 5.100.240 Permit requirements.**

Approval of a storm water drainage plan shall be obtained from the Clallam County Public Works Department prior to obtaining permits, including but not limited to building permits, for actions that may affect storm water runoff. Storm water drainage plans shall comply with Clallam County requirements.

An approved road approach permit shall be obtained from the Clallam County Public Works Department prior to obtaining other permits, including but not limited to building permits, and for actions that may affect access to County roads. Road approaches shall comply with the guidelines of the Clallam County Public Works Department.

**CCC 5.100.245 – Excerpts for Road Division Service Fees Related to Drainage Review**

| Service Type  | Fee   | Code Reference                                      |
|---|---|---|
| Standard Residential Drainage Plan Review <sup>1</sup>  | \$30/plan   | CCC 5.100.245                                       |
| Non-standard (alternative) Residential Drainage Plan – Outside of Critical Areas <sup>2</sup> | \$125/plan  | CCC 5.100.245                                       |
| Non-standard (alternative) Residential Drainage Plan Review – Critical Areas <sup>2</sup>     | \$180/plan  | CCC 5.100.245<br>Chap. 27.12 CCC,<br>Critical Areas |
| Engineered Non-residential Drainage Plan Review <sup>3</sup>                                  | \$0.15/sf of equivalent impervious surface; \$340 minimum | CCC 5.100.245                                       |

<sup>(1)</sup> “Standard residential drainage plan review” means review of drainage plan applications using standard method drywells for containing roof runoff for a single-family residential development. This also covers review of drainage plans pursuant to pre-approved comprehensive drainage plans unless the pre-approved comprehensive plan requires an engineered plan or the drainage plan exceeds the limits of the pre-approved comprehensive drainage plan. CCC 5.100.235(2)

<sup>(2)</sup> “Alternative residential drainage plan review” means review of drainage plans for residential applications not included under standard residential drainage plan review. Examples include alternative plans such as storage ponds, minor impacts on large parcels, or residential drainage plans designed by an engineer licensed in Washington. CCC 5.100.235(3)

<sup>(3)</sup> “Engineered nonresidential drainage plan review” means review of drainage plans for nonresidential developments. These drainage plans must be designed by an engineer licensed in Washington. CCC 5.100.235(4)

**SEPA REVIEW – CHAPTER 27.01, CLALLAM COUNTY ENVIRONMENTAL POLICY**

- Have conditioned new large-scale commercial development in Port Angeles UGA to comply with Ecology stormwater manual using SEPA substantive authority. For example, the Walmart development in the eastern Port Angeles UGA.

**CRITICAL AREAS CODE, CHAPTER 27.12 CCC**

Below are critical area code provisions related to stormwater management. These would be in addition to other protection standards such as buffers from wetlands, streams, and landslide hazard areas.

- CCC 27.12.200 Applicability and purpose (Wetlands – includes stormwater objectives)
- CCC 27.12.215(6) Addresses when stormwater management plan required – Wetlands
- CCC 27.12.215(13) Additional specific stormwater management requirement – Wetlands
- CCC 27.12.300 Applicability and purpose (Aquatic Areas – includes stormwater objectives)
- CCC 27.12.315(8) Addresses when stormwater management plan required – Aquatic Areas (streams)
- CCC 27.12.315(21) Additional specific stormwater management requirement – Aquatic Areas
- CCC 27.12.320(3) Addresses when stormwater management plan required – Class I wildlife conservation areas.
- CCC 27.12.325(2) Addresses when stormwater management plan required – Class II wildlife conservation areas.
- CCC 27.12.415(3) Addresses when stormwater management plan required – Landslide Hazard Areas.
- CCC 27.12.415(12) Additional specific stormwater management requirement – Landslide Hazard Areas
- CCC 27.12.420(2) Addresses when stormwater management plan required – Erosion hazard areas.
- CCC 27.12.515(3) Addresses when stormwater management plan required – Floodplains.
- CCC 27.12.615(7) Stormwater standards for commercial and industrial uses-Critical Aquifer Recharge Areas.
- CCC 27.12.815 Critical Area Code Drainage and Erosion Control Plan Requirements

**CLALLAM COUNTY SHORELINE MASTER PROGRAM (SMP)**

The recently County-approved SMP Update (October 2018) now under Ecology review contains these two key sections related to stormwater management. These would be in addition to other protection standards such as buffers from wetlands, streams, and landslide hazard areas.

- SMP Section 5.2 (Clearing, Grading and Filling)
- SMP Section 5.4, Water Quality and Water Management

**EXCERPT FROM COUNTY-WIDE PLANNING POLICIES ADOPTED BY BOCC IN OCTOBER 2018**

- Environment chapter include illicit discharge prohibition, water quality protection, and stormwater policies.

**EXCERPTS FROM PORT ANGELES REGIONAL COMPREHENSIVE PLAN, CHAPTER 31.04 CCC**

**CCC 31.04.105 Excerpts of Public facilities and services – Policies**

**(5) Stormwater Management.**

(a) [Policy No. 19] ● Control stormwater runoff and treat associated pollutants generated from new development, redevelopment, and new and relocated roads, highways, and bridges.

● Clallam County, City of Port Angeles, WA Department of Transportation

(i) For new development, maintain post development peak runoff rate and average volume at levels that protect aquatic resources and capital improvements.

(ii) Both structural and nonstructural methods should be employed to mitigate the adverse impacts of stormwater.

(iii) Management practices should be designed for site-specific conditions to achieve the desired maximum effectiveness.

(iv) Regional stormwater management is advocated as a means of correcting existing problems, but not necessarily as a means of addressing new projects.

(v) Minimize stormwater impacts to natural conveyance systems.

(vi) Biofiltration best management practices shall be a required component of all stormwater management systems where feasible.

(vii) Where feasible, utilize appropriate biofiltration pollution control mechanisms to treat road and highway runoff prior to discharging to surface and ground waters of the watershed. Minimize stormwater impacts during road highway projects and seek mitigation which would increase stormwater storage.

(b) [Policy No. 20] ● Riparian areas, and wetlands should be protected and restored as part of regional stormwater management.

● Clallam County, City of Port Angeles

(i) Use vegetation and “soft” practices, such as reed berms or willow revetments, rather than “hard” structural improvements, such as rip-rap or concrete revetments, to stabilize stream channels and reduce or eliminate the effects of stormwater.

(ii) Maintain, and increase where feasible, the natural storage capabilities of the watershed’s wetlands. Investigate the potential for increased stormwater storage through artificial wetland development at suitable sites.

(iii) Utilize constructed wetlands to treat and contain surface water runoff pollutants and decrease loading to surface waters. Constructed wetlands or sediment retention basins should be located to have a minimal impact on the surrounding areas. While wetlands constructed for stormwater treatment do not replicate all of the ecological functions of natural wetlands, they should be designed with enhancements which increase their aesthetic value as a landscape amenity whenever possible.

(c) [Policy No. 21] ● Develop a schedule for implementing stormwater controls and capital facilities identified in stormwater management plans (Clallam County; City of Port Angeles, 1986, 1994), and other necessary improvements to existing stormwater control structures.

## Clallam County Department of Community Development

● Clallam County, City of Port Angeles

(i) Identify and establish priorities and funding for regional structural solutions, retrofit needs and opportunities, and nonstructural alternatives.

(d) [Policy No. 22] ● Pollution prevention mechanisms, including education and source control and treatment, should be implemented by all jurisdictions as part of comprehensive stormwater management plans. Jurisdictions should cooperate in watershed-wide stormwater management planning and implementation.

● Clallam County, City of Port Angeles, WA Department of Transportation

(e) [Policy No. 23] ● Alternative designs and maintenance strategies should be developed for impervious parking lots which promote sweeping, use of vegetated areas/grassed swales, and other methods to contain and control pollutants.

● Clallam County, City of Port Angeles

(i) All new storm drains shall be identified with a "Dump No Waste, Drains to ... [stream, groundwater, etc.]" message.

(ii) Conduct a volunteer project to stencil existing storm drains with a "Dump No Waste" educational message.

(f) [Policy No. 24] ● Publish design standards in a readily understandable format for permit applicants and responsible parties. Provide clear requirements to expedite planning, review, and approval of stormwater control methods.

● Clallam County, City of Port Angeles

(g) [Policy No. 25] ● Jurisdictions should undertake periodic monitoring and maintenance to ensure proper operation and maintenance of stormwater facilities of facilities they own and/or operate.

● Clallam County, City of Port Angeles, WA Department of Transportation

(h) [Policy No. 26] ● Adopt and implement planning and design standards for stormwater facilities that require the minimum amount of maintenance for proper, long-term functioning. Ensure continued performance through appropriate maintenance operations. Repair damage after storms, and periodically inspect practices.

● Clallam County, City of Port Angeles

(i) [Policy No. 27] ● Publish specific obligations and responsibilities of the stormwater facility owner/operator including procedures for identifying owners/operators with long-term responsibility for the facility. Whenever possible, facilities should be operated and maintained by a public entity or professional services contractor. Once installed, facilities should receive thorough maintenance at regular intervals, by individuals trained in proper inspection and maintenance of such facilities.

● Clallam County, City of Port Angeles

(j) [Policy No. 28] ● Develop a procedure for addressing maintenance default by negligent owner/operators. A provision shall be made for public assumption of stormwater control facilities.

● Clallam County, City of Port Angeles

(k) [Policy No. 29] ● Establish a stormwater review and inspection program which includes staff training and education.

● Clallam County, City of Port Angeles

Clallam County Department of Community Development

(l) [Policy No. 30] Develop training and education programs and materials for public officials, contractors, and others involved with the design, installation, operation, inspection, and maintenance of runoff facilities.

Clallam County, City of Port Angeles

(m) [Policy No. 31] Educate the public about the importance of stormwater management facilities. Explain the purpose and details of stormwater projects and programs, the benefits they provide, and the need for regular maintenance of facilities. Signage at these facilities is an effective way to provide this information, in addition to field trips, workshops, and other educational activities.

Clallam County, City of Port Angeles

(n) [Policy No. 32] Periodically review and evaluate stormwater management programs to ensure continued effectiveness and efficiency. Evaluate locally applied stormwater BMPs to determine their general effectiveness in reducing the quantity and quality impacts of runoff.

Clallam County, City of Port Angeles

**CCC 31.04.145 Excerpts of Natural Environment – Policies**

(1) General.

(a) [Policy No. 1] Review existing regulations relating to critical areas, sewage disposal, and land division for adequacy and effectiveness of ground and surface water protection measures.

County, City of Port Angeles

(i) Strengthen the wording and enforcement of existing laws, to protect water quality and quantity and to control specific sources of nonpoint pollution.

(ii) Provide incentives for compliance if necessary and include innovative enforcement approaches such as restoration, civil penalties, dedicated fines, and/or community service.

(b) [Policy No. 2] Address cumulative impacts to water quantity, water quality and beneficial uses, across all jurisdictions, when developing and implementing land use policies and plans. Conservation of water resources and prevention of pollution are the preferred management objectives.

**31.04.155 Excerpts of Public Involvement and Education – Policies.**

(1) Education.

(a) [Policy No. 1] Provide funding and support for a water resources field agent who will provide assistance in planning, conducting, and evaluating educational programs by working with local governments, property owners, and the public. The field agent should conduct regular educational presentations to civic groups and organizations in the community on water resource issues and watershed plan implementation.

WSU-Cooperative Extension, UW SeaGrant, Clallam County, City of Port Angeles

(b) [Policy No. 2] Conduct educational programs to meet applicable stewardship objectives and which are geared toward specific neighborhoods, organizations, and user groups. Programs should provide information, discussion, and activities and should address water quality and quantity issues and problems particular to these groups. Subjects covered may include on-site sewage disposal system operation and maintenance; riparian management; waste reduction, recycling, and disposal; water conservation.

## Clallam County Department of Community Development

● WSU-Cooperative Extension, Clallam County, City of Port Angeles, Elwha S'Klallam Tribe, Port of Port Angeles

(i) Conduct education programs for individual forest landowners, the general public, and the forest industry about forestry best management practices, streamside management, and watershed restoration.

● WA Department of Natural Resources, Clallam Conservation District, WSU-Cooperative Extension

(ii) Provide public education programs for boaters, marina owners and operators, and other interested shoreline users. Signage, billing inserts, and workshops regarding proper waste disposal, spill management, and pumpout use should be a part of educational activities.

(iii) Conduct public education programs regarding proper use and disposal of household hazardous materials and chemicals.

(iv) Use public education and awareness programs to encourage the use of biodegradable cleaners and other alternatives to hazardous chemicals.

(c) [Policy No. 3] ● Continue Clallam Conservation District's ongoing program of water quality education for small farm and commercial farm operators. Reach out to small farm operators to identify needs and concerns, provide information about good stewardship, and provide technical assistance for conservation planning and best management practices.

● Clallam Conservation District, WSU-Cooperative Extension

(d) [Policy No. 4] ● Conduct outreach and awareness programs to reach a broad spectrum of the population, including previously underserved groups. Integrate environmental education and activities into other social and economic programs. Environmental education objectives should include giving marginalized groups employment skills, control over their environment, access to power, and cultural identity.

● WSU-Cooperative Extension, Clallam County, City of Port Angeles, Elwha S'Klallam Tribe

(h) [Policy No. 8] ● Develop or purchase educational displays for use in public spaces, government offices, community events.

● WSU-Cooperative Extension, Clallam County, City of Port Angeles, WA Department of Fish and Wildlife

(i) Utilize brochures, booklets, and countertop video programs to provide water quality and water quantity education for individuals applying for County and City permits.

### (2) Information.

(a) [Policy No. 9] ● Create and distribute a personal water quality decision-making guide, which includes issues related to individual attitudes and behavior, describes the options and opportunities the individual has to correct and prevent nonpoint source pollution, and the effects of those choices, and provides the individual with avenues to further protect water quality in their home, business, and community.

● WSU-Cooperative Extension, Clallam County, City of Port Angeles

### (3) Activities.

## Clallam County Department of Community Development

(a) [Policy No. 15] Identify stream, wetland, and shoreline sites in the watershed which could be used for educational programs and develop site-specific materials for these places. Conduct field trips to these sites to demonstrate beneficial use and nonpoint pollution issues and solutions.

WSU-Cooperative Extension, Clallam Conservation District, Clallam County, City of Port Angeles, WA Department of Fish and Wildlife

(c) [Policy No. 17] Work with teachers, citizens groups, agencies, and landowners to coordinate water quality and habitat enhancement projects on local streams. Utilize local volunteers to conduct an ongoing water quality monitoring program as an educational and public involvement tool.

Clallam Conservation District, WSU-Cooperative Extension, Elwha S'Klallam Tribe, Clallam County, City of Port Angeles, WA Department of Fish and Wildlife

(f) [Policy No. 20] Conduct training sessions for County, State, and agency staff, contractors, and equipment operators whose activities may impact or influence water quality.

Clallam County, City of Port Angeles

(g) [Policy No. 21] Conduct a stormwater demonstration project which includes a field workshop for local contractors, developers, and the public. Projects should be designed to accompany stormwater management manuals developed by County, City, and State.

### **CCC 31.04.310 Excerpts of Comprehensive Plan Policies for Port Angeles UGA**

#### (5) Critical Areas.

(a) [Policy No. 13] The creeks flowing through the Port Angeles urban growth area should be preserved and enhanced as critical habitat for freshwater and saltwater species of fish. The bottoms and steep-sided ravines associated with each creek should be preserved in a natural state whenever possible to protect the geologically unstable ravine sidewalls and to maintain the filtering properties of the natural vegetation buffering the streams.

(b) [Policy No. 14] Preserve the value and functions of critical areas such as steep-sided creek ravines, bluffs, narrow creek bottoms, wetlands and natural drainage ways by identifying such sites with an open space overlay designation and enacting programs to further protect such critical areas.

(i) Property in critical areas identified in an open space overlay designation would be targeted for public acquisition through voter approval of a general obligation bond or the enactment of conservation futures tax or the enactment of an additional one percent real estate tax on transfer of property.

(ii) Property owners of critical areas identified in an open space overlay designation should be able to qualify for open space taxation regardless of the size of their property.

(iii) Property owners of critical areas identified in an open space overlay designation should be allocated development rights which could be utilized in receiving zones within the urban growth area.

(c) [Policy No. 15] Implementation of the urban growth area should include specific measures to protect the water quality and resources of the creeks flowing through the Port Angeles urban growth area.

## Clallam County Department of Community Development

(d) [Policy No. 16] Wetlands in the urban growth area serve important functions in the urban area including indirect stormwater storage, filtering water prior to its entry into the Strait and in provision of wildlife habitat and should be protected and retained.

(e) [Policy No. 17] Groundwater resources should be protected through city/county adoption of stormwater and erosion control measures, water quality education programs, and other best management practices which avoid or minimize impacts to groundwater.

### (6) Urban Watershed Management.

(a) [Policy No. 18] Site development, including roads, highways, and bridges, should protect the natural integrity of waterbodies and natural drainage systems.

#### City of Port Angeles

(i) Avoid conversion, to the extent practicable, of areas that are susceptible to erosion and sediment loss;

(ii) Preserve areas that provide important water quality benefits and/or are necessary to maintain riparian and aquatic habitat;

(iii) Plan, design, and develop sites to limit impervious areas;

(iv) Limit land disturbance activities such as clearing and grading, and cut and fill;

(v) Limit disturbance of natural drainage features and vegetation; and

(vi) Guidance on appropriate pollution prevention practices should be incorporated into site development and use.

(b) [Policy No. 19] Where feasible, identify failing residential on-site sewage disposal systems within the City limits, and provide sewer service consistent with the City's Urban Services Ordinance.

#### City of Port Angeles

(c) [Policy No. 20] Develop and implement a commercial source control program (e.g., "Business for Clean Water") which offers pollution prevention assessments, reduction strategies, and training materials for the workplace. The program should provide incentives and rewards for businesses which implement new practices to improve pollution prevention associated with their operation.

#### City of Port Angeles

(d) [Policy No. 21] Manage stream corridors in the urban areas as greenways.

#### City of Port Angeles

(i) Establish soft trails which connect to the waterfront trail, providing a water-oriented recreational amenity which also focuses on interpretation and protection of local natural resources within the urban environment.

(ii) The City, Port, Elwha S'Klallam Tribe, and County should work cooperatively to educate landowners, fund acquisition of property, and develop amenities while maintaining the natural state of the corridor.

(7) Valley Creek. [Policy No. 22] Conduct general habitat improvements, such as revegetation, restoration of channel configuration, and placement of instream structures. Continue rehabilitation of estuarine habitat. Replace or improve culverts to correct fish passage problems.



Clallam County Department of Community Development

● WA Department of Fish and Wildlife, Port of Port Angeles, City of Port Angeles, Clallam County, Elwha S’Klallam Tribe

(8) Peabody Creek.

(a) [Policy No. 23] ● Target this stream for activities which will improve the ecosystem functions of its lower stretches and complement the good quality found upstream.

● City of Port Angeles, Clallam County Elwha S’Klallam Tribe

(b) [Policy No. 24] ● Use the stream to enhance watershed awareness among urban residents and tourists. Develop enhancement projects which, while not necessarily improving salmon production, could serve multiple objectives related to water quality education, resident fish and wildlife habitat, stormwater management, and recreation and aesthetics.

● WA Department of Fish and Wildlife, Elwha S’Klallam Tribe, City of Port Angeles

(c) [Policy No. 25] ● Improve fish access to upstream habitat by eliminating blockage under 5th Street and Park Avenue. Create off-channel rearing at Peabody and 5th to improve habitat potential.

● WA Department of Fish and Wildlife, Elwha S’Klallam Tribe, City of Port Angeles

(d) [Policy No. 26] ● Undertake projects and conduct activities to improve the salmon productivity of this stream.

● WA Department of Fish and Wildlife, Elwha S’Klallam Tribe, City of Port Angeles

(9) Ennis Creek. [Policy No. 27] ● Revegetate riparian corridors and buffers in residential areas.

● City of Port Angeles, Clallam Conservation District

(11) Open Space and Greenbelts. [Policy No. 29] The City shall designate greenbelts within the urban growth area. Areas that should be considered include all of the creek ravines. (See Figure 22 for critical habitat corridors.)

# APPENDIX 3—Brochures

# APPENDIX 4—Clallam Courthouse Stormwater Retrofit Project

### Courthouse Parking Lot Stormwater Retrofit Project Bioretention swales





















Constructing Porous Asphalt



