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2309 Meridian Street • Bellingham, WA 98225 • (360) 733-8307 • fax (360) 715-8434 • resource@re-sources.org

February 3, 2012

Ms Kathleen Emmett
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

RE: Petition to Include City of Blaine, Blaine and Birch Bay UGAs Under the NPDES Municipal Phase II Permit for Western Washington

Dear Kathleen:

Thank you for your work on the Western Washington Phase II Municipal General Stormwater Permit. In our role of protecting and restoring the marine and nearshore habitats of the Northern Puget Sound region, we view the NPDES permits as key components of our region's toolbox to protect water resources from the adverse effects of stormwater runoff. To this end, we submit this petition to include the City of Blaine, the Blaine UGA, and the Birch Bay UGA for coverage under the newest draft of the Phase II Western Washington Municipal Stormwater Permit (Permit).

Summary Statement: The City of Blaine, the Blaine UGA, and the unicorporated Birch Bay UGA have a combined population of 13,097 (2010 data). These areas are contiguous, and the marine waters along their shorelines have similar water quality problems. The ongoing stormwater pollution potential of the City of Blaine is especially concerning because of the magnitude of traffic at the border crossing and close proximity to sensitive waters. We urge that you designate these three areas as one "Bubble City," and include it for coverage under the 2012 Permit.

By including this area under the Phase 2 Municipal Stormwater General Permit, this area will be required to participate in stormwater permit requirements, resulting in water quality improvements to Puget Sound and the Strait of Georgia.

Detailed comments for each of the three criteria listed on the "Municipal Stormwater Permit Criteria for Designating Phase II Bubble Cities" follow:

Criterion A.1: Stormwater Discharge to Impaired or Sensitive Waters

Drayton Harbor is a marine bay located in northwestern Whatcom County, has experienced shellfish growing area closure due to degraded water quality for many years. Similarly, water quality issues have long been present in Birch Bay, an inlet of Georgia Strait, which is directly south of Drayton Harbor. The following section contains details about water quality, stormwater, and sensitive waters status of these areas.

Blaine and Drayton Harbor water quality and impaired status:

Stormwater outfalls in the city of Blaine and the Blaine UGA drain to Drayton Harbor, Dakota Creek, and a small unnamed creek that drains to Drayton Harbor. These waterbodies, and nearby California Creek have been listed under Section 303(d) of the federal Clean Water Act for non-attainment of Washington State fecal coliform bacteria criteria since 1998. The listings in Drayton Harbor are based on sampling by the Port of Bellingham in and around the Blaine Marina from 1997-2000. The listings on Dakota and California Creeks are based on sampling done by the Northwest Indian College from 1998-2003. Ongoing monitoring by Whatcom County has shown that fecal coliform contamination remains a problem. (Stroebel, 2011.)

Drayton Harbor has a long history of shellfish closures. Washington State Department of Health (DOH) prohibited harvesting of shellfish in 1995 in portions of Drayton Harbor due to deteriorating water quality. In 1999, the entire harbor was downgraded to a "prohibited" status for shellfish harvesting. The main commercial and recreational shellfish beds were conditionally reopened in May 2004, with the exception of temporary closures following large rainfall events. DOH recently implemented a seasonal closure in Drayton Harbor due to declining water quality. The conditional approval area is closed to shellfish harvest between the months of November and February of each year.

As stated in the Drayton Harbor TMDL, the highest fecal coliform levels were observed during the wet season, and the sampling stations with the highest fecal coliform levels did not exhibit a monthly pattern. Numerous actual and potential pollution sources were identified during a June 2006 shoreline survey conducted by Whatcom County Public Works Department. This survey noted elevated fecal coliform from Dakota, California, and Cain Creeks and stormwater culverts and drainages near Blaine.

Although some improvements in water quality have been demonstrated, a recent Department of Health report recommended that the Drayton Harbor shellfish area should continue to be classified Conditionally Approved, and remain closed during the winter months (November – February) due to elevated fecal coliform levels during the wet months. The recent Department of Health report stated that stormwater sampling data showed extremely elevated bacteria levels arising from the stormwater culverts and drainages near the town of Blaine

Ecology is conducting a TMDL study in this watershed because there is strong evidence of bacterial contamination that is affecting beneficial uses in the area, such as shellfish harvesting and recreation. There are also 3 Category 2 (waters of concern) listings for fecal coliform (2), and ammonia-nitrogen (1), with additional listings proposed for fecal coliform and dissolved oxygen for the 2010 assessment. It is likely that fecal coliform, ammonia-N, and low dissolved oxygen are associated with stormwater runoff.

The DOH completed a report titled “Fecal Coliform Pollution in Drayton Harbor through 2007.” They use a “fecal pollution index” which provides a single value to express the annual status of fecal pollution in shellfish growing areas throughout the Puget Sound. It is a useful way to show pollution trends in these areas. In the case of Drayton Harbor, their analysis shows that in spite of improvement in water quality at some sampling stations in the harbor, there is “little evidence of significant overall change in water quality in the harbor over the past 10 years.” Drayton Harbor has the dubious distinction of having the highest fecal pollution index by far of the 94 growing areas that are evaluated by the Washington State Department of Health.

Birch Bay water quality and impaired status:

Birch Bay has also experienced shellfish growing area closures due to degraded water quality in Terrell Creek, the primary freshwater discharge to the bay. In 2003 the DOH identified Birch Bay as a "threatened" shellfish growing area due to water quality degradation. In 1994, DOH noted the elevated bacteria levels in Terrell Creek as a potential threat to the shellfish growing areas adjacent to the mouth of the creek (DOH 1994). There is also 1 Category 2 (waters of concern) listing for fecal coliform, with additional listings proposed for fecal coliform and dissolved oxygen for the 2010 assessment. Again, it is likely that these parameters are associated with stormwater.

Terrell Creek, which drains to Birch Bay, experiences low summer and fall flows, fish passage problems, and degraded instream and riparian habitat. Fish populations are declining in Terrell Creek. Poor water quality and low flows in the lower portion of Terrell Creek have been considered potential causes or contributors to fish kills in 2002 and 2007. The Terrell Creek water Quality Monitoring Report 2004-2009 concluded that temperature, DO, and Fecal Coliform in Terrell Creek did not meet the WA State water quality standards for this freshwater creek (NSEA 2010).

In response to the water quality issues, Whatcom County has established a shellfish protection district in Birch Bay. Ongoing monitoring by Whatcom County has shown that the majority of sites do not meet the standard for primary contact recreation and noticeable improvement has not occurred. (Whatcom County Public Works, 2010-2011)

Sensitive and unique habitat of Drayton Harbor and Birch Bay:

Drayton Harbor and Birch Bay provide critical habitat for the following species:

- Puget Sound Chinook salmon; federally threatened, state candidate. This species uses the area for foraging and over-wintering.
- Bull Trout; federally threatened, state candidate. This species also uses the area for foraging and over-wintering.
- Puget Sound Steelhead; federally threatened. This species uses Dakota Creek for spawning and rearing. (Whatcom Salmon Recovery Website)
- Cherry Point herring. Once the largest stock in Washington with spawning grounds extending from north Bellingham Bay to the Canadian border, the Cherry Point herring stock has declined 94% from historic levels (Bargman 2001.)
- Marbled murrelet; federally threatened, state threatened. This species forages in the near shore waters of Drayton Harbor,
- Surf scoters. These birds rely on herring for sustenance, and have decreased in numbers parallel to the Cherry Point herring. Bower demonstrated that as a group scoters showed significant declines in both the PSAMP/MESA (-57%) and WWU/MESA (-33%) comparative studies. Surf scoters declined by 60% in the WWU/MESA comparison; however, nearly half of this decline is attributed to the collapse of the Cherry Point herring stock that occurred between the two survey periods. (Puget Sound Science Update, 2010).
- Common murre. This seabird has declined 93% in the north Puget Sound region since the since the 1970s census. (Marine Birds, 2007).
- Western grebe. This seabird has seen its numbers drop 81 percent. (Marine Birds, 2007).

Birch Bay has healthy eelgrass beds that provide excellent forage, spawning grounds, and refuge for numerous marine species, including waterfowl, crab, snails, shrimp, and Pacific Herring. Birch Bay also provides excellent rearing habitat for juvenile fish, including forage fish and salmon, and provides critical spawning areas for surf smelt and sand lance, which are vital members of the marine food web.

Blaine, including Semiahmoo, and Birch Bay, are major wintering areas on the Pacific Flyway located between Seattle and Vancouver, British Columbia. This area has been designated as one of 53 Important Bird Areas in Washington State. The area is also a stopover for rare and uncommon species over the past few years, including American White Pelican, Parasitic Jaeger, Thayer's Gull, Little Gull, Heermann's Gull, Great Egret, Hudsonian Godwit, Bar-tailed Godwit, Marbled Godwit, Long-billed Curlew, Whimbrel, and Red Knot.

Part of the shoreline in the Birch Bay UGA includes Birch Bay State Park, which provides access to Point Whitehorn Marine Reserve. Point Whitehorn is one of the most significant marine areas of Whatcom County, due to its kelp forests, herring spawning, and importance to fisheries. In addition to its value as a shellfish area, Birch Bay is one of the most popular marine recreational areas for Whatcom County residents and visitors. In 2009, Birch Bay was the most popular recreational shellfish collecting beach in Washington State, with 26,000 clammers counted.

Standards for Birch Bay and Drayton Harbor:

The Washington State Water Quality Standards, set forth in Chapter 173-201A of the Washington Administrative Code (WAC) include designated beneficial uses, waterbody classifications, and numeric and narrative water quality criteria for surface waters of the state.

The increased protections afforded by the Permit are especially applicable to this area because the marine waters within Drayton Harbor, outside of Drayton Harbor, within Semiahmoo Bay, and Birch Bay are essential for the following aquatic life and human contact uses: (1) salmonid and other fish migration, rearing, and spawning; (2) clam, oyster, and mussel rearing and spawning; and (3) crustaceans and other shellfish (crabs, shrimp, crayfish, and scallops) rearing and spawning.

Within Drayton Harbor, waters should meet guidelines for Excellent quality, as well as meeting primary contact standards for recreational uses. Outside of Drayton Harbor and within Semiahmoo Bay, waters should meet guidelines for Extraordinary quality (guidelines found in WAC 173-201A) Birch Bay and Terrell Creek are classified as Extraordinary Primary Contact Recreation for bacteria criteria by the Washington State Department of Ecology (Final Birch Bay/ Terrell Creek Fecal Coliform and Nutrient Monitoring Project 2010).

Criterion A.2: Is the MS4 a Signficant Contributor of Pollutants to Waters of the United States?

Stormwater Outfalls: The City of Blaine, Blaine UGA, and Birch Bay UGA discharge untreated urban stormwater into sensitive and/or impaired water bodies. The City of Blaine discharges stormwater via 21outfalls to Drayton Harbor, 15 outfalls into Cain Creek, and one outfall to Dakota Creek (Arnet 2012, Smith 2012) Additionally, it appears that some stormwater flows from the City of Blaine into the Blaine UGA, and some leaves the UGA and flows into

unincorporated County areas. Stormwater from the Blaine UGA discharges to Dakota Creek and into unnamed watercourses that discharge to Drayton Harbor. The Birch Bay UGA contains approximately 35 public stormwater outfalls that discharge into Birch Bay (Enschede 2012). Data from Whatcom County illustrate that the stormwater outfalls are a frequent contributor of fecal coliform pollution. (Stroebel 2011, Enschede 2012) No information about private stormwater outfalls was available at the time of this writing.

Other Pollution Sources: Activities in this area that may contribute loading of pollutants into receiving waters include large impervious areas, including some facilities with industrial stormwater permits such as two boatyards and two marinas. In addition, heavy traffic associated with the U.S. Canadian Border and truck crossing, large areas of truck parking, expanding industrial areas, and expanding residential areas contribute heavily to stormwater pollution. We are especially concerned that development projects in this area "fly under the radar" and should receive the regulatory oversight required by the municipal permit. These areas would especially benefit from the outreach, education, and targeted business sector outreach (and source control program and outreach) that is required by the permit. Especially relevant potential pollution sources are listed below.

- The Blaine Marina is located at the northern edge of the harbor entrance. The marina contains approximately 600 boat slips, including permanent moorage and 700 square feet of visitor moorage. Common pollutants associated with marinas include antifouling coatings and paint, which are an ongoing source of copper to water. Typical activities in marinas include boat rehabilitation, mechanical repairs, painting, fueling and lubrication.
- A large number of commercial vessels and businesses are located on the pier at the mouth of Drayton Harbor. Like recreational vessels, discharges from commercial vessels, from holding tanks to bilge water and deck waste, are a potential source of contamination in the harbor. Management practices of the businesses occupying the wharf area of the marina can also impact water quality.
- Within the marina are several fish processing companies and a public wharf. The processors have combined to form a consortium and no longer discharge to Blaine WWTP but to a separate outfall at the mouth of Drayton Harbor. The seafood processors are regulated by Ecology through an industrial state waste discharge permit; it is not clear whether this permit covers stormwater.
- Two NPDES permitted boatyards operate in Drayton Harbor. Blaine Marine Services, received a correction notice from DOE on 7/2010 for violations including but not limited to "polluting impaired waters discharge limits exceeds 303(d) limit." Similar notices have been issued in the past to Blaine Marine Services. Westman Marine also received numerous correction notices. The most recent notice was issued on 7/21/2010 was for "polluting impaired waters discharge limits exceeds 303(d) limit," discharging process water without treatment in lined impoundments, and failure to clean up oil spills or repair leaking equipment. Currently Walsh Marine operates on the site previously occupied by Westman Marine.
- The Cain Creek watershed drains a large portion of the city of Blaine, north of the harbor, and discharges to Drayton Harbor approximately ⅓ of a mile south of the international border with Canada. Its headwaters begin in a minimally developed wetland area just south of the Blaine Airport and drain into the main channel, which parallels the I-5 freeway through the city. The City's stormwater in this area is heavily impacted by the development of Blaine and the construction of the I-5 freeway. Runoff from this area includes many large unpaved and poorly maintained truck parking and maintenance areas associated with the border crossing. We believe that many of these businesses

should be covered under the Industrial Stormwater General Permit (ISGP), but are not currently covered, despite our efforts to educate businesses about this requirement.

- The magnitude of trucks and other vehicles crossing at the US/Canadian Border Crossing may be contributing a significant source of pollutants to Drayton Harbor. Truck tires and brake pads are a documented source of copper and other pollutants in stormwater. Vehicle crossing statistics at US Border Crossing within the City of Blaine were as follows in 2010: Trucks – 586,052. Loaded truck containers – 367,020. Empty truck containers – 163,753. Buses – 17,985. Personal vehicles – 6,377,325. (Border Crossing/Entry Data, 2011).
- Birch Bay UGA is a rapidly developing area with a heavy seasonal use and tourism. The Birch Bay UGA is experiencing rapid development, particularly near the beach. New development increases the peak rate and volume of runoff, impacting stormwater quality and quantity. Natural hydrology in many areas of the UGA has been altered, wetlands have been impacted, and stormwater runoff is conveyed through culverts and ditches. Loss of vegetation has increased volumes of runoff and peak flows. Ditch construction has channelized the system and promoted higher runoff velocities and greater volumes of runoff.
- The Birch Bay UGA includes numerous recreational developments, including golf courses and an equestrian center. Golf courses have the potential to produce stormwater pollutants or contribute to increased stormwater runoff, including equipment and parts washing, fuel storage, use of pesticides, herbicides, fertilizers, and watering of golf course grounds. Portions of this golf course are within 500 feet of Birch Bay.
- Primary soil types around Drayton Harbor and the California and Dakota Creek watersheds have seasonal high water tables which limit the ability of the soil to hold and treat contaminants. Once discharged to the shallow portions of the harbor, wind and currents disperse and direct these impacts towards the deeper Conditionally Approved portions of the shellfish growing areas.

Criterion B.1: Does the MS4 Serve a Substantial Population Area?

Yes. For all practical purposes, the Blaine, Blaine UGA, and Birch Bay UGA, are contiguous, share a continuous waterfront, and have similar drainage, stormwater, and development pressures. Their combined population is 13,097, which exceeds the federal requirement to evaluate all cities outside census urban areas of over 10,000 in population served by the MS4, known as “bubble cities”.

The population growth rates are high in these areas, as well. Whatcom County population increased by 20.6 percent from 2010, exceeding the total population of Washington State, which increased by 14.1 in the same time period. The population of the Birch Bay UGA increased more than any other area of Whatcom County during the last decade, with 3,451 people added. The population of the Birch Bay UGA is expected to double in the next 20 years. Currently, the urban areas in the Birch Bay watershed have more potential for growth than any other area in Whatcom County (Whatcom County Salmon Recovery Website). The City of Blaine population increased 80% from 2000 (population 3,770) to 2010 (population 4,684). No population data was available for the City of Blaine UGA. Birch Bay, a “Census Designated Place” which includes Birch Bay, Point Whitehorn, non-City of Blaine portions of Semiahmoo, and Birch Point increased 59%, from 4,961 in 2000 to 8,413 in 2010 (Paben, 2011).

Are Water Quality Impacts of the MS4 Already Being Addressed Under Other Regulations or Programs?

The City of Blaine and Blaine UGA do not currently have an official program or staff to address water quality impacts of stormwater.

Birch Bay UGA: The Birch Bay UGA has the Birch Bay Watershed and Aquatic Resources Management (BBWARM) District, which is managed by Whatcom County Public Works. It is a self-taxing district that was established in 2007 to manage stormwater and address citizen concerns about water quality problems, flooding, and loss of aquatic habitat in the Birch Bay Watershed. The mission of BBWARM is as follows: *To promote actions that reduce the impacts of stormwater runoff by decreasing the threat of flooding to private and public property and by improving and protecting water quality, aquatic habitat, and the quality of life that a healthy watershed provides.* Despite the proactive efforts by this group and by Whatcom County staff, water resources in this area would be afforded more protections if the area was included under the municipal permit.

BBWARM is a voluntary program. Some of the elements of the BBWARM program are similar to the requirements of the Permit. The requirements of the Permit are much more extensive. Some of the differences between what BBWARM accomplishes and what is required of permittees include, but are not limited to the following:

- The permit requires more extensive education and outreach,
- The permit requires an ongoing program to map, identify, detect, prevent, and track illicit connections,
- There are more stringent requirements for controlling runoff from new development, redevelopment, and construction than for BBWARM, and
- Maintenance requirements, tracking, and reporting inspection of stormwater facilitities is more extensive for permittees than for BBWARM.

Again, thank you for your work on this important issue and for the opportunity to comment on the criteria relevant to the Phase 2 MSGP. If you have questions on these comments, please contact Lee First or Wendy Steffensen, North Sound Baykeeper Team members, at (360) 733-8307, or at leef@re-sources.org and wendys@resources.org, respectively.

Sincerely,

Lee First, Pollution Prevention Specialist
Wendy Steffensen, Lead Scientist

Information Sources:

Arnet, Frank. City of Blaine Wastewater Treatment Plant. Personal Communication. January 24, 2012.

Bargmann, Greg. Fish and Wildlife Science Online Science Magazine. WDFW. 2001. Accessed January 2, 2012. http://www.wa.gov/wdfw/science/current/herring.html.

Birch Bay Watershed & Aquatic Resources Management District (BBWARM). "Annual Report 2010." 2010. Accessed January 20, 2012. http://bbwarm.whatcomcounty.org/about

"Birch Bay." Whatcom Salmon Recovery. Accessed January 22, 2012. http://whatcomsalmon.whatcomcounty.org/background/watershed_archive/archiv e-birchbay.html

Combs, Greg and Scott Berbells. "Sanitary Survey of Whatcom County." Washington State Department of Health. July 2010. Accessed January 24, 2012. http://whatcomshellfish.whatcomcounty.org/Drayton/documents/DraytonHarbor SanitarySurvey2010.pdf

Department of Ecology. "Drayton Harbor Watershed Fecal Coliform Total Maximum Daily Load." March 2008. Accessed January 20, 2012. http://www.ecy.wa.gov/pubs/0803105.pdf

Department of Ecology. "Drayton Harbor Focused Watershed Analysis, Remediating Water Quality Impacts Through Application of Landscape Principles." August 11, 2003. Accessed January 20, 2012. http://www.whatcommrc.whatcomcounty.org/documents/DraytonReportFinal031.pdf

Department of Health. "Fecal Coliform Polution in Drayton Harbor through 2008." June 24, 2009. Accessed January 24, 2012. http://www.doh.wa.gov/ehp/sf/Pubs/psamp-drayton.pdf

Derry, Bill and Amy Engstrom. "Birch Bay Comprehensive Stormwater Plan, Summary of Public Workshop 1." January 5, 2006. Accessed January 20, 2012. http://www.co.whatcom.wa.us/pds/pdf/planning/draft_bb_comp_swplan_appendi ces_a_e.pdf

Enschende, Ingrid. Whatcom County Public Works. Email Communication. UGA Maps. January 17. 2012.

Enschede, Ingrid. Whatcom County Public Works. Personal Communication. January 18, 2012.

"Marine Bird Population Declining." *New York Times*, August 21, 2007. Accessed January 30, 2012. http://www.precaution.org/lib/07/marine_birds+decline.070821.htm

"Marbled Murrelet Population Trends." Washington Department of Fish and Wildlife. Accessed January 18, 2012. http://wdfw.wa.gov/conservation/research/projects/seabird/marbled_murrelet_po pulation/

Nooksack Salmon Enhancement Association. “Terrell Creek Water Quality Monitoring Report, 2004-2009.” April 2010. Accessed January 15, 2012. http://www.n-sea.org/watersheds/terrell-creek

“Northern American Border Crossing/Entry Data.” Bureau of Transportation Statistics, last modified August 2011. Accessed on January 18, 2012. http://www.bts.gov/programs/international/transborder/TBDR_BC/TBDR_BC_Ind ex.html

Paben, Jared. “2010 Census: Whatcom County grew 20.6 percent over past decade.” *The Bellingham Herald,* February 23, 2011. Accessed January 31, 2012. http://www.bellinghamherald.com/2011/02/23/1882675/2010-census-whatcom-county-grew.html

“Puget Sound Science Update, Marine Birds.” Puget Sound Partnership, lat modified October 27, 2010. Accessed January 24, 2011. http://pugetsoundscienceupdate.com/pmwiki.php?n=Chapter2a.MarineBirds

Smith, Rod. City of Blaine, Public Works. Personal Communication. January 18, 2012.

Stroebel, Erika. Email Communication. Whatcom County Water Quality data. October 13, 2011.

Stroebel, Erika. “FINAL Birch Bay/ Terrell Creek Fecal Coliform and Nutrient Monitoring Project, Qualtiy Assurance Plan.” Whatcom County Public Works. September 2010. Accessed January 25, 2012. http://whatcomshellfish.whatcomcounty.org/birch/documents/ BirchBayWQQAPP_final.pdf

United States Census 2010. Accessed January 18, 2012. http://2010.census.gov/2010census/data/

Whatcom County Public Works. “Birch Bay/Terrell Creek Water Quality Monitoring Project. Progress Report #1.” June 2010. Accessed January 21, 2012. http://whatcomshellfish.whatcomcounty.org/birch/documents/BBMonJan-Jun2010_final.pdf

Whatcom County Public Works. “Birch Bay/Terrell Creek Water Quality Monitoring Project. Progress Report #2.” December 2010. Accessed February 3, 2012. http://www.bbwarm.whatcomcounty.org/programs/wq

Whatcom County Public Works. “Birch Bay/Terrell Creek Water Quality Monitoring Project. Progress Report #3.” June 2011. Accessed February 3, 2012. http://www.bbwarm.whatcomcounty.org/programs/wq