



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

September 4, 2009

Michael A Bussell, Director
U.S. Environmental Protection Agency
Region 10
Office of Water and Watersheds
1200 Sixth Avenue, OWW-130
Seattle, Washington 98101

Re: Permit No.: AKS-052558
Municipality of Anchorage
Stormwater Permit

Attn: Misha Vakoc

Dear Mr. Bussell:

The U.S. Environmental Protection Agency (EPA) is proposing to reissue the National Pollutant Discharge Elimination System (NPDES) general permit (Permit No. AKS-052558) for storm water discharges from all municipal separate storm sewer system (MS4) outfalls owned or operated by the Municipality of Anchorage (MOA) and the Alaska Department of Transportation and Public Facilities (ADOT&PF).

Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act requires federal agencies to consult with NMFS on all actions that may adversely affect Essential Fish Habitat (EFH). In the Fact Sheet for the above referenced permit EPA has tentatively determined that the reissuance of this permit will not affect any EFH in the vicinity of the discharges. NMFS disagrees with this conclusion and has subsequently met with EPA to discuss the EFH determination. As a result, EPA has informed NMFS that it will prepare an EFH Assessment within the Biological Evaluation for this action. This letter conveys our concerns as they relate to EFH. Any comments we have on marine mammals or threatened or endangered species will be provided in a separate letter.

Proposed Action

The proposed NPDES permit establishes conditions, prohibitions and management practices for discharges of storm water from the MS4s owned or operated by the MOA and ADOT&PF. The permit requires the continued implementation of a jurisdiction-wide municipal storm water management program (SWMP), and outlines the actions and activities to be used by both permittees to control pollutants in urban storm water discharges to the maximum extent practicable. Monitoring of certain storm water discharges is required to determine the effectiveness of best management practices (BMPs) and to estimate pollutant loading to impaired receiving waters. Annual reporting is required to provide information on the status of the SWMP implementation.



General Concerns

Non-point source pollution from storm water runoff is an emerging threat to ecosystems along coastal areas of the United States (McCarthy 2008). A variety of potentially toxic chemicals are commonly found in these discharges including fecal coliform, pesticides, petroleum hydrocarbons, heavy metals, and other common contaminants that originate from agricultural, residential, commercial, and industrial land use activities. These chemicals, in the form of metals, organic and inorganic compounds are mobilized from roads, lawns, and other surfaces by rainfall and snow melt, suspended in water and transported to aquatic habitats via terrestrial runoff. Literature reviews and ongoing research illustrate the adverse impacts of storm water discharge from growing communities on fresh water and marine invertebrate, fish and marine mammal populations (Ewing 2006, LaLiberte 2006, Beach 2002, Boulton 2001, Becker 2001).

These discharges have been shown to negatively alter cellular function and biochemical machinery in many aquatic organisms giving rise to the incidence of carcinogenesis through oxidized metabolites, interfere with DNA repair mechanisms, initiate teratogenesis and increase mortality in fish species. Some contaminants disrupt neurotoxic and olfactory responses that maintain normal homing, predator avoidance, spawning behavior. They can weaken immune system response, and inadvertently increase susceptibility and mortality from diseases. These conclusions are well documented in a variety of fish species (Sandahl 2007, Ewing 2006, Klink 2005, Baldwin 2003, Dethloff 1999, Hansen 1999 and 1999b, Baker 1993, Neff 1985).

Recent reports indicate that toxic contamination of water, sediments and organisms in the Puget Sound region is partially a result of NPDES permitted discharges (Ewing 2006, LaLiberte 2006). Dissolved metals, and organic and inorganic compounds found in storm water discharge have been found in mussels, fish species such as sole, rockfish, and salmonids, and seals and killer whales. Sublethal effects from many discharges may prove more deleterious over time than the immediate lethal concentrations, because subtle and small effects on fish may alter their behavior, feeding habits, and reproductive success (Murty 1986). Impacts from these pollutants are further intensified when persistent chemicals contained in the effluent return to the discharge area when tides reverse. This physical process coupled with the continued discharge of pollutants results in a net increase to the background concentration, and over time reduces the dilution effect of the receiving water (USGS, 2005, EPA Estuaries, 1992; EPA TSD, 1991).

Specific Concerns

Alaska's economy is largely based on resource extraction activities. Expansion of utility projects, transportation infrastructure expansion, residential and industrial growth to support these activities will result in increased impacts to water quality and subsequently to living marine resources including EFH in Alaska. Currently, there are several large scale projects proposed for the south central Alaska that would result in increased development in Anchorage. Additionally in Anchorage a number of water bodies are on the State of Alaska's list of impaired waters. The State is required to develop water quality management plans, in the form of Total Maximum Daily Loads (TMDLs), for impaired water bodies. TMDLs define both waste load allocations (WLAs) and load allocations that specify how much of a particular pollutant can be discharged from both regulated and unregulated sources, respectively, such that the waterbody will again meet State water quality standards. The water quality standards that have been exceeded include those for fecal coliform, dissolved oxygen and petroleum products. In the analyses done to date,

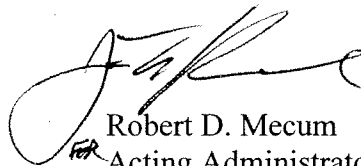
the source of these pollutants has been broadly attributed to storm water runoff within the greater Anchorage area.

EPA has determined that BMPs, implemented and enforced through a comprehensive SWMP, are the most effective mechanisms for reducing the discharge of pollutants to the maximum extent practicable and for complying with the water quality provisions of the Clean Water Act. This permit proposes to continue the use of BMPs as the primary means to ensure stormwater discharges meet state water quality standards and the WLAs set forth in the TMDLs. EPA is also proposing monitoring and other specific actions based on the TMDL analysis to augment SWMP activities. Numeric water quality effluent limitations are not proposed at this time. NMFS suggests that in order to address our concerns on impacts to EFH, EPA work closely with the State to develop numeric limitations.

Conclusion

NMFS applauds the proactive efforts of the MOA and ADOT&PF to manage urban storm water discharges from their MS4s. This has been done by producing a variety of locally specific requirements, assessments and guidance material to address storm water discharges within the Anchorage area, including: the Storm Water Treatment Plan Review Guidance and Manual; Drainage Design and Design Criteria Guidelines and Manuals; and the Low Impact Development Design Guidance. However, NMFS is concerned that the analysis does not adequately address Anchorage's future expansion and the associated hazards of additional sources of non-point pollution. Scientific literature is replete with evidence that storm water discharge can adversely impact the biological integrity, health and condition of aquatic ecosystems, including EFH. In Alaska, there is a unique opportunity to learn from the numerous examples of other regions in United States. We look forward to receiving the Biological Evaluation and EFH Assessment for this action. Our point of contact on this project is Doug Limpinsel. He can be contacted at 907-271-6379 or Doug.limpinsel@noaa.gov.

Sincerely,



Robert D. Mecum
Acting Administrator, Alaska Region

References:

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