

STATE OF ALASKA

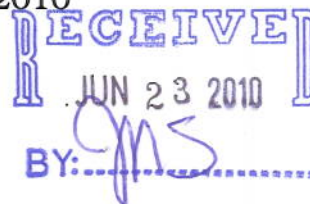
DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
WASTEWATER DISCHARGE AUTHORIZATION PROGRAM

SEAN PARNELL, GOVERNOR

555 Cordova Street
Anchorage, Alaska 99501-2617
PHONE: (907) 269-6283
FAX: (907) 269-3487

June 18, 2010

Mr. John Stone
City and Borough of Juneau
Docks and Harbors Department
155 South Seward Street
Juneau, AK 99801



RE: Request for additional information concerning POA-2000-495-M3 Gastineau Channel - Douglas Harbor Improvements

Dear Mr. Stone:

On December 8, 2009, the U.S. Army Corps of Engineers (Corps) issued a Public Notice of Application for Permit under Section 404 of the Clean Water Act; reference number POA-2000-495-M3. The Alaska Department of Environmental Conservation (ADEC) has been involved in pre-application discussions with the City and Borough of Juneau (CBJ), the Corps, the U.S. Environmental Protection Agency (EPA), several other state and federal agencies, and other local groups. CBJ has answered many requests for additional information that have been raised during pre-application discussion. The information collected to date has been posted on the CBJ website. On December 28, 2009 we submitted a request through Carrie Bohan of the Division of Coastal and Ocean Management (DCOM) to CBJ for additional information. On February 22, 2010 CBJ through their consultant responded to our request for additional information.

We are submitting the following request for additional information pursuant to 18 AAC 15.040, requests for additional information and asking CBJ to update our earlier request based on discussions during several agency meetings this winter and spring. If there is no change, we ask CBJ to please refer us to the answer provided earlier. We've had several discussions this winter and spring with you, federal and state agencies, and local groups and it seems that maintaining a viable harbor and addressing the disposal of the dredged material are critical.

With regard to the proposed project and disposal in Gastineau Channel, we are mindful of:

- a. the importance of the harbor to the community;
- b. the desire to reestablish the harbor's design depth;
- c. the dependence of people in the area on consumption of food from the marine environment;
- d. the disposal area that has been used in the past may have limited use by local people;
- c. the confirmed mercury contamination contained in the proposed dredge materials;
- d. the transitory, readily bio-available nature of mercury;
- e. the process of dredging may increase the risk posed by the mercury;
- f. the process of open water, unconfined disposal may increase the risk posed by the mercury; and
- g. the effect of Gastineau Channel's extreme tidal flushes of over 22.5 vertical feet in a 12 hour period on moving the material during disposal and after deposition.

We have tried to identify where existing information is insufficient and needs to be expanded upon. We request the following information before a decision is made on whether to issue, waive or deny a 401 Certificate of Reasonable Assurance. We have organized our request for additional information into three areas.

Project as Proposed

The following request for information is based on agency discussions since our letter to DCOM of December 28, 2009.

1. Characterize the deposition zone in terms of dispersion of proposed dredged materials. Use reliable modeling and exploratory (ground-truthing) sampling. To what extent are materials dispersed? What measures will prevent such dispersal?
2. Characterize the deposition zone in terms composition of existing materials and possible contaminants.
3. Provide detailed measures during and after construction that will prevent the availability and distribution of mercury.
4. Provide a monitoring plan for during and after construction that examines whether the site materials are secure and whether the immediate waters and surrounding substrates encounter contamination. The plan should include contingencies during which known counter measures will be invoked.

5. Please note that project measures such as sampling and monitoring plans should be preapproved by ADEC. Deposition zone characterization and sampling will need to be completed before issuance of the 401 certificate.
6. In an email dated January 12, 2009 I referred to the Alaska Division of Public Health Epidemiology Bulletin Volume 11, Number 4, entitled "Fish Consumption Advice for Alaskans: A Risk Management Strategy to Optimize the Public's Health" (Bulletin). I referred to the Bulletin in the context of the Inland Testing Manual and its reference to state fish advisories (see email of January 12, 2009). From the Bulletin I extracted the number 0.32 ppm wet weight of total mercury as a value to use in reviewing the results of testing that the City and Borough of Juneau and its consultants conducted on sediments from Douglas Harbor.

It was pointed out to me that I used the Bulletin inappropriately (see email of February 23, 2010 from Lori Ann Verbrugge, Alaska Division of Public Health). This means based on the comments from Division of Public Health do not use the 0.32 ppm concentration. As to what concentration ADEC will give as a replacement to the 0.32 ppm, we do not have a concentration at this time. We have not had the opportunity to develop an alternative concentration.

We recognize CBJ needs a concentration to use for this project. In the absence of an ADEC accepted concentration for in-water disposal for the dredged material we are deferring to the approach recommended in Lori Verbrugge's email of February 23, 2010 (listed below)

- a. Utilize the EPA approach, "Guidance for assessing chemical contaminant data for use in fish advisories" to derive a "safe" mercury level for fish. See EPA's website for a copy of the report.
- b. Be sure to take the potential for methylation, and subsequent biomagnifications, into account.
- c. Use EPA's reference dose for mercury, which is 0.1 µg/kg body wt/day.
- d. Be sure to take into account the high rates of consumption exhibited by subsistence consumers in Alaska.

Provide a re-evaluation of the NewFields sample results provided in multiple reports and followup letters using the approach described above.

7. The original Corps Public Notice does not include a description of over-excavating the harbor and capping the bottom sediments. This alternative has been discussed in several meetings. If CBJ wants to pursue this alternative, please provide a description of how this would be accomplished.

The following is our request for additional information from our letter of December 28, 2009. Please update your response to the following in light of the agency discussions since December 2009 and number six above.

1. Provide information and a description of why allowing lower water quality is necessary to accommodate important economic or social development in the area where the water is located.
2. Provide information and a description of how the addition of sediment contaminated with mercury will not violate the applicable criteria of 18 AAC 70.020, specifically 70.020(23)(C) "The concentration of substances in water may not exceed the numeric criteria for aquatic life for marine water and human health for consumption of aquatic organisms only shown in the *Alaska Water Quality Criteria Manual* (see note 5), or any chronic and acute criteria established in this chapter, for a toxic pollutant of concern, to protect sensitive and biologically important life stages of resident species of this state. There may be no concentrations of toxic substances in water or in shoreline or bottom sediments, that, singly or in combination, cause, or reasonably can be expected to cause, adverse effects on aquatic life or produce undesirable or nuisance aquatic life, except as authorized by this chapter. Substances may not be present in concentrations that individually or in combination impart undesirable odor or taste to fish or other aquatic organisms, as determined by either bioassay or organoleptic tests."
3. Provide a description of the methods of pollution prevention, control, and treatment found to be the most effective and reasonable that will be applied to all wastes and other substances to be discharged.
4. Provide information and a description of how all wastes and other substances discharged will be treated and controlled to achieve the highest statutory and regulatory requirements.
5. Provide information and a description of how the activity, when completed, will not cause a long-term, chronic, or recurring violation of the water quality standards.
6. Expand on the description of the proposed activity provided in the Corps Public Notice. Specifically describe the time of year of the proposed activity and the project duration.
7. Provide information and a description of the areal extent of the discharged dredge material and quantify the degree of variance from the applicable criteria.

8. Expand on the alternatives analysis already provided (go beyond economic considerations) to include the ecological impact and water quality impact of each alternative.
9. Provide information and a description of the potential direct and indirect impacts on human health of the proposed activity.
10. Provide information and a description of the existing uses (such as recreational, personal use, subsistence, or commercial) of the waterbody in the project area and within an area of anticipated impacts from the project activity.
11. Provide information and a description of the estimated impact (both short-term and long-term) of the proposed activity's discharge of dredged material on the existing uses of the water involved, including recreation and use for habitat, rearing, growth, or migration by fish, shellfish, other aquatic life, and wildlife including the potential for bioaccumulation and persistence.
12. Provide information and a description of the expected duration of the proposed deposit and the potential transport of pollutants by biological, physical, and chemical processes.

Alternative Considerations

The project, as proposed, would need ADEC approval from just the Division of Water, Wastewater Discharge Authorization Program (WWDA) for a 401 Certificate of Reasonable Assurance of the Corps 404 permit. If the project is modified as outlined below the applicant may need approvals from other Divisions within ADEC. We ask the applicant to consider and evaluate the following alternatives.

Alternative A

Alternative A considers carrying out the project as proposed with the final disposal of the dredged material going to an approved uplands location. WWDA requests the following information if the proposed project is modified to dispose of the dredged material in an approved uplands location.

1. Provide a description of proper handling of dredged material during transport to an approved location.
2. The original Corps Public Notice does not include a description of over-excavating the harbor and capping the bottom sediments. This alternative has been discussed in several meetings. If CBJ wants to

pursue this alternative, please provide a description of how this would be accomplished.

Alternative B

Alternative B considers carrying out the project as proposed with no harbor dredging. WWDA requests no additional information if the proposed project is modified to avoid dredging.

If you have any questions about this information request please contact me at the phone number listed above or at william.ashton@alaska.gov.

Sincerely,



William Ashton, Section Manager
Stormwater & Wetlands Section

cc: Carrie Bohan, DNR
Chris Meade, EPA

Heidi Firstencel, Corps