



Fact Sheet

NPDES **Permit Number:** AK-005342-2
Date: **April 28, 2005**
Contact: **Cindi Godsey**
 Alaska Operations Office/Anchorage
 (907) 271-6561 or (800) 781-0983 (in Alaska only)
 godsey.cindi@epa.gov

The U.S. Environmental Protection Agency (EPA) Plans To Issue A Wastewater Discharge Permit To:

Concha Holdings, Ltd.
200 W. 34th Avenue #1183
Anchorage, Alaska 99503

This will also serve as a notice of the
STATE of ALASKA's draft
§ 401 CERTIFICATION

and
a consistency determination on water quality for the
Alaska Coastal Management Program (ACMP).

EPA Proposes NPDES Permit Issuance.

EPA proposes to issue a *National Pollutant Discharge Elimination System* (NPDES) Permit to Concha Holdings, Ltd. for a gold dredging operation in Nome, Alaska. The draft permit sets conditions on the discharge - or release - of pollutants from the operation into Norton Sound.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a description of the facility, its history and current discharge and treatment system
- a description of proposed effluent limitations , monitoring requirements, and other conditions
- a map and description of the discharges

The State of Alaska proposes certification.

The Alaska Department of Environmental Conservation (ADEC) proposes to certify the NPDES permit for this operation under section 401 of the Clean Water Act. A draft § 401 Certification is included in this Fact Sheet as Appendix D.

Consistency Determination under the Alaska Coastal Management Program.

On July 29, 2004, the Alaska Department of Natural Resources/Office of Project Management and Permitting (ADNR/OPMP) concurred with the consistency determination provided by the applicant. According to the letter, ADEC must make the determination on water quality for the project. Appendix D contains information regarding this issue. For further information on the ADNR/OPMP action, please contact Amanda Henry at (907) 269-7468

EPA invites comments on the proposed permit.

EPA will consider all substantive comments before issuing a final permit. Those wishing to comment on the proposed permit may do so in writing by the expiration date of the Public Notice. After the Public Notice expires, and all comments have been considered, EPA's regional Office of Water & Watersheds Director will make a final decision regarding permit issuance.

Persons wishing to comment on the State Certification or the water quality portion of the consistency review should submit written comments by the public notice expiration date to the Alaska Department of Environmental Conservation, 610 University Avenue, Fairbanks, Alaska 99709.

If no substantive comments are received, the tentative conditions in the proposed permit will become final, and the permit will become effective upon issuance. If significant comments are received, the EPA will address the comments and reissue the permit along with a response to comments. The permit will become effective 30 days after the issuance date, unless the permit is appealed to the Environmental Appeals Board (EAB) within 30 days.

Documents are available for review.

The draft NPDES permit and related documents can be reviewed at EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday. This material is also available for inspection and copying at the following places in Alaska:

USEPA Alaska Operations Office
Federal Building, Room 537
222 West 7th Avenue
Anchorage, Alaska 99513-7588
Telephone: (800) 781-0983 (Within Alaska)

USEPA Alaska Operations Office
709 W. 9th Street, Room 223
PO Box 20370
Juneau, Alaska 99802
Telephone: (907) 586-7619

ADEC, Water Division, 610 University Avenue, Fairbanks, AK 99709 Telephone: (907) 451-2142

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I. APPLICANT

NPDES Permit No.: AK-005342-2 Offshore Dredge

<u>Mailing Address:</u>	<u>Facility Location:</u>
200 W. 34 th Avenue #1183 Anchorage, Alaska 99503	offshore of Nome, Alaska

Facility contact: Jim Halloran, Agent

II. FACILITY ACTIVITY

The project is the operation of a floating suction dredge in the waters of Norton Sound off the coast of Nome, Alaska. The dredge will be equipped with a 24 inch diameter suction tube necked down to a 20 inch nozzle. The permit application states that the facility will process up to 48,000 cubic yards of material per day. The discharge will occur by funneling the effluent down a six foot diameter collapsible tube to the seafloor.

III. RECEIVING WATER

The receiving water is the marine water of Norton Sound which is classified in 18 AAC 70 as Classes (2)(A), (B), (C), and (D) for use in aquaculture, seafood processing, and industrial water supply; contact and secondary recreation; growth and propagation of fish, shellfish, other aquatic life, and wildlife; and harvesting for consumption of raw mollusks or other raw aquatic life.

IV. EFFLUENT LIMITATIONS

A. Statutory Basis for Permit Conditions

1. Technology-based Limitations

Pursuant to the Act Section 402(a)(2) [40 CFR 122.44(k)(3)], Best Management Practices (BMPs) are being proposed in the draft permit. These practices are reasonably necessary either to achieve effluent limitations or to carry out the Act's goals of eliminating the discharge of pollutants as much as practicable and to maintain water quality.

2. Water Quality-based Limitations

Section 301(b)(1) of the Act requires the establishment of limitations in permits necessary to meet water quality standards by July 1, 1977. All discharges to state waters must comply with state and local coastal management plans as well as with state water quality standards, including the state's antidegradation policy. Discharges to state waters must also comply with limitations imposed by the state

as part of its coastal management program consistency determination and of its certification of NPDES permits under section 401 of the Act.

The NPDES regulations at 40 CFR 122.44(d)(1) require that permits include water quality-based limits which "Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality."

3. Section 308 of the Clean Water Act

Under Section 308 of the Act and 40 CFR § 122.44(i), the Director must require a discharger to conduct monitoring to determine compliance with effluent limitations and to assist in the development of effluent limitations. 40 CFR § 122.44(i)(2) allows flexibility in determining the frequency of reporting.

B. Specific Permit Conditions

“Permit writers must consider the impact of every proposed surface water discharge on the quality of the receiving water. Water quality goals for a water body are defined by State water quality standards. A permit writer may find, by analyzing the effect of a discharge on the receiving water, that technology-based permit limits are not sufficiently stringent to meet these water quality standards. In such cases, the Clean Water Act and EPA regulations require development of more stringent, water quality-based effluent limits designed to ensure that water quality standards are met.” (1996, U.S. EPA NPDES Permit Writer’s Manual, p87.)

This suction dredge’s unique method of intake and displacement present unusual permitting issues. By discharging at the bottom through the six foot tube, it is likely that any turbidity caused by the discharge would not be visible beyond the designated mixing zone. For these reasons EPA has determined that numeric effluent limitations are not necessary. Instead, the BMPs in Permit Part II. have been developed. These BMPs, which are supplemented by required turbidity monitoring designed to ensure that the BMPs are being implemented properly, are, in this circumstance, sufficient to implement the requirements of the Act. That is, these practices would ensure that the beneficial uses designated by the State are adequately protected and justify the absence of more stringent technology and water quality-based effluent limitations.

Section 308 of the Clean Water Act and the federal regulations at 40 CFR § 122.44(i) require that permits include monitoring to determine compliance with effluent limitations. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. Concha Holdings, Ltd., is responsible for conducting the monitoring and for reporting results to EPA.

The permit requires a daily visual inspection for turbidity of the area within a 500 meter radius of the suction dredge during operation. This also includes any turbidity

that may result from any other part of the operation in Norton Sound. If turbidity is observed beyond 500 meters, the permittee would be required to modify the operation to meet the permit limitation. If the operation could not be modified to meet the limit, the operation would not be authorized. In most cases, water quality recovers rapidly. The daily inspection during operation, combined with the BMPs in Permit Part II, should assure that the water quality standards are met.

The reporting requirement is based on 40 CFR § 122.48 which is specified in the permit as a submission of an annual report by November 30th of each year.

V. BEST MANAGEMENT PRACTICES

Best management practices (BMPs) are measures that are intended to prevent or minimize the generation and the potential for the release of pollutants from industrial facilities to the waters of the United States through normal operations and ancillary activities.

Pursuant to Section 402(a)(1) of the Clean Water Act, development and implementation of Best Management Practices (BMP) Plans may be included as a condition in NPDES permits. Section 402(a)(1) authorized EPA to include miscellaneous requirements in permits on a case-by-case basis which are deemed necessary to carry out the provision of the Act. BMPs, in addition to numerical effluent limitations, are required to control or abate the discharge of pollutants in accordance with 40 CFR § 122.44(k).

The proposed permit requires compliance with the following BMPs.

- A. Dredging, which results in undercutting, littoral channeling, or otherwise results in beach erosion, is prohibited.

This practice will ensure that beach erosion does not occur and that the finer sediments that may be found in these areas do not cause turbidity problems in the receiving waters.

- B. Motorized winches or other motorized equipment shall not be used to move boulders, logs, or other natural obstructions.

This practice should ensure that habitat in these areas will not be destroyed.

- C. Suction dredges shall not operate within 650 meters of another dredging operation occurring simultaneously.

This practice should ensure that the mixing zone of this facility does not overlap with that of another since 650 meters is the distance of a 500 meter radial mixing zone for this operation and a designated 500 foot (approximately 150 meters) mixing zone authorized by the general permit for suction dredges.

D. Dredging of concentrated silt and clay is prohibited.

This practice will decrease the amount of fine material that will be released into the water that could cause turbidity plumes in excess of the permitted distance.

E. Care shall be taken by the operator during refueling of the dredge to prevent spillage into surface waters or to groundwater. Any spills shall be cleaned up using materials such as sorbent pads and booms. All spills shall be reported to DEC by calling 1-800-478-9300.

This practice will decrease the amount of spillage during refueling.

VI. OTHER PERMIT CONDITIONS

Endangered Species Act (ESA)

The Endangered Species Act requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) if their actions could beneficially or adversely affect any threatened or endangered species. EPA sent letters to the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service on January 27, 2005, requesting a species list for the area of the facility. In a letter dated February 15, 2005, the USFWS determined that the project is not likely to adversely impact listed species so further consultation under Section 7 of ESA is not necessary.

In a letter dated February 23, 2005, the NMFS provided a list of ESA Species in marine waters. The Endangered list includes: blue whale, bowhead whale, fin whale, humpback whale, Northern right whale, Sei whale, sperm whale, and Steller sea lion (Western stock). Threatened marine mammals include the Steller sea lion (Eastern stock). NMFS provided an internet reference to the 2003 Stock Assessment Report for information (www.nmfs.noaa.gov/prot_res/readingrm/MMSARS/sar2003akfinal.pdf) on the geographic range. Norton Sound is not listed as an important waterbody for any of the above listed species. This information leads EPA to determine that the issuance of this permit is not likely to affect ESA species.

Essential Fish Habitat (EFH)

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act set forth a number of new mandates for NMFS, regional fishery management councils and other federal agencies to identify and protect important marine and anadromous fish habitat. Federal action agencies that may adversely impact EFH are required to consult with NMFS regarding the potential effects of their action on EFH. NMFS has previously expressed concern about the reproductive associations of the red king crab. Since activities under this permit are not likely to occur from February through May because open water is necessary for a successful operation and timing restrictions imposed by the US Army Corps,

EPA has determined that no adverse effect to EFH would result from the issuance of this permit.

State Certification

Section 401 of the Clean Water Act requires EPA to seek certification from the State that the permit is adequate to meet State water quality standards before issuing a final permit. The regulations allow for the State to stipulate more stringent conditions in the permit, if the certification cites the Clean Water Act or State law references upon which that condition is based. In addition, the regulations require a certification to include statements of the extent to which each condition of the permit can be made less stringent without violating the requirements of State law.

Part of the State's certification is authorization of a mixing zone. A draft state certification is included in Appendix D.

The draft permit has been sent to the State to begin the final certification process. If the state authorizes a different mixing zone in its final certification, EPA will change the permit based on the final mixing zone. If the State does not certify the mixing zone, EPA will deny the permit unless the applicant can show that a turbidity discharge limitation of 25 NTUs, the state's water quality standard, can be met at the discharge point.

Permit Expiration

This permit will expire five years from the effective date of the permit, but may be administratively extended if the conditions of 40 CFR §122.6(a) are met.

APPENDIX A -- LIST OF ACRONYMS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ADGC	Alaska Division of Governmental Coordination
AWQS	Alaska Water Quality Standard
BMP	Best Management Practices
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
FR	Federal Register
gpm	gallons per minute
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
TSD	Technical Support Document for Water Quality-based Toxics Control
USC	United States Code
USGS	United States Geological Survey

APPENDIX B -- PROJECT AREA MAP

APPENDIX C -- BASIS FOR EFFLUENT LIMITATIONS

Technology-based Limitations

Pursuant to the Act Section 402(a)(2) [40 CFR 122.44(k)(3)], Best Management Practices (BMPs) are being proposed in the draft permit. These practices are reasonably necessary either to achieve effluent limitations or to carry out the Act's goals of eliminating the discharge of pollutants as much as practicable and to maintain water quality.

Water Quality-based Limitations

Section 301(b)(1) of the Act requires the establishment of limitations in permits necessary to meet water quality standards by July 1, 1977. All discharges to state waters must comply with state and local coastal management plans as well as with state water quality standards, including the state's antidegradation policy. Discharges to state waters must also comply with limitations imposed by the state as part of its coastal management program consistency determination and of its certification of NPDES permits under section 401 of the Act.

The NPDES regulations at 40 CFR 122.44(d)(1) require that permits include water quality-based limits which "Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality."

Section 308 of the Clean Water Act

Under Section 308 of the Act and 40 CFR § 122.44(i), the Director must require a discharger to conduct monitoring to determine compliance with effluent limitations and to assist in the development of effluent limitations. 40 CFR § 122.44(i)(2) allows flexibility in determining the frequency of reporting.

APPENDIX D -- Draft 401 Certification

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

ADEC, Division of Water
410 Willoughby Avenue, Suite 303
Juneau, AK 99801-1795
PHONE: (907) 465-5175
FAX: (907) 465-5177
<http://www.state.ak.us/dec>

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
WASTEWATER DISCHARGE PROGRAM**

April 1, 2005

Mike Lidgard

ADEC File: 400.68.005

NPDES Unit Manager
USEPA
1200 Sixth Avenue
Seattle WA, 98101

RE: Draft 401 Certification of NPDES Permit AK-005342-2

Dear Mr. Lidgard;

Concha Holdings Ltd. Has applied for an NPDES permit and 401 certification for wastewater discharge to Norton Sound from a 20" suction dredge proposed to operate offshore of Nome, AK. The ADEC proposes to authorize a turbidity mixing zone with a 500 meter radius from the dredge for this facility. The ADEC has authorized turbidity mixing zones with a radius of 500 meters for similar facilities discharging to the Norton Sound. Previous 401 certifications for similar facilities (most recently Coggins 20" suction Dredge: AK-005331-7) have been found to be consistent with the Alaska Coastal Management Plan (ACMP) regulations. The ADEC believes that this project, due to its similarities with operations that have gone through consistency findings, is also consistent with ACMP and notes the proposed consistency finding in the attached draft 401 certification. We have copied the ADNOR Office of Management and Permitting to ensure that they concur with our finding.

The ADEC has enclosed the Draft Certificate of Reasonable Assurance to include in the public notice process for the proposed issuance of AK-005342-2.

If you have any questions regarding this draft certification please contact me at 907-451-2142 or at luke_boles@dec.state.ak.us.

Sincerely,

SIGNATURE ON FILE

Luke Boles
Environmental Engineering Associate
Wastewater Discharge Program

Enclosures: Draft Certificate of Reasonable Assurance for NPDES Permit AK-005342-2

CC:

Cindi Godsey, EPA Region 10, Anchorage
Concha Holdings Ltd
Mac McLean, ADNR/OHMP, Fairbanks

Amanda Henry, ADNR/OPMP, Anchorage
Steve McGroarty, ADNR/DMLW, Fairbanks

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DRAFT CERTIFICATE OF REASONABLE ASSURANCE

This DRAFT Certificate of Reasonable Assurance, in accordance with Section 401 of the Federal Clean Water Act and the Alaska Water Quality Standards, has been requested by the U.S. Environmental Protection Agency for issuance of NPDES permit number AK-005432-2. NPDES Permit number AK-005432-2 is proposed to be issued to Concha Holdings Ltd. for a 20” suction dredge mining operation on Norton Sound near Nome, AK.

Public Notice of the application for this DRAFT certification will be made in accordance with 18 AAC 15.140.

Water Quality Certification is required for the activity, because the activity will be authorized by an Environmental Protection Agency permit identified as NPDES Permit No. AK-005432-2 and a discharge will result from the activity.

After review of the public comments received in response to the public notice, the Alaska Department of Environmental Conservation certifies that there is reasonable assurance that the activity and the resulting discharge is in compliance with the requirements of Section 401 of the Clean Water Act, which includes the Alaska Water Quality Standards, 18 AAC 70, provided that the terms and conditions of this certification are adhered to.

The Department has reviewed the discharges with respect to the antidegradation policy of the Alaska Water Quality Standards and finds the reduction in water quality to be in accordance with the requirements of 18 AAC 70.015, provided that the terms and conditions of this certification are made part of the final NPDES Permit.

The Department has reviewed the discharges with respect to the Alaska Coastal Management Plan (ACMP), as required in 11 AAC 110, and proposes to find the project consistent with the applicable ACMP regulations.

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Through this certification, in accordance with 18 AAC 15.120 ADOPTION OF NPDES PERMITS, the final NPDES permit will constitute the permit required under AS 46.03.100 Waste Disposal Permit, provided that the terms and conditions of the final certification are made part of the final NPDES Permit. The department is specifying the following permit terms and conditions under authority of AS 46.03.110(d):

1. As allowed under 18 AAC 70.240, the ADEC certifies a mixing zone for turbidity extending 500 meters radially from the dredge's discharge point. The maximum allowable increase in turbidity at all points measured 500 meters and beyond from the discharge point is 25 nephelometric turbidity units (NTU).
2. A visual increase in turbidity (any additional cloudiness or muddiness) outside of a 500 meter radius of the suction dredge's discharge point during operations is considered a violation of the permit.
3. If noticeable turbidity does occur outside the 500 meter radius of the work site, operation of the suction dredge must decrease or cease so that a violation as defined above does not exist.

Rationale: In accordance with State Regulations 18 AAC 70.240, the Department has authority to designate mixing zones in permits or certifications. This mixing zone will ensure that the most stringent water quality standard limitations for turbidity; 25 nephelometric turbidity units (NTU), is met at all points outside of the mixing zone.

In authorizing this mixing zone the Department considered all aspects required in 18 AAC 70.015 (Antidegradation) and 18 AAC 70.240-270 (Mixing Zones) including, but not limited to, the potential risk to human health and ecological resources of Norton Sound.

The Department finds that the size of the mixing zone authorized for discharge in this certification is appropriate and provides reasonable assurance that existing uses of the Norton Sound outside of the mixing zone are maintained and fully protected.

April 1, 2005

Date

DRAFT

Gretchen Keiser

Program Manager

Wastewater Discharge Program

DRAFT

APPENDIX E -- REFERENCES

Application received by EPA on April 7, 2004.

Letter dated May 19, 2004, from NMFS to US Army Corps of Engineers (COE) concerning conservation recommendations for EFH.

Letter dated July 29, 2004, from ADNR/OPMP to Jim Halloran regarding the ACMP review.

Letter dated December 4, 2004, from the COE to NMFS concerning EFH conservation recommendations.

Angliss, R. P., and K.L. Lodge. 2004. Alaska marine mammal stock assessments, 2003. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC, 230 p.

EPA, NPDES Permit Writer's Manual. Office of Water, Office of Wastewater Management, Permits Division. Washington, DC. 20460; EPA-833-B-96-003, December 1996, 220pp.

EPA, Technical Support Document for Water Quality-based Toxics Control. Office of Water Enforcement and Permits, Office of Water Regulations and Standards. Washington, DC, 20460; EPA/505/2-90-001, March 1991, 145pp.

Impact of suction dredging on water quality, benthic habitat, and biota in the Fortymile River, Resurrection Creek, and Chatanika River, Alaska. Prepared for EPA by Aaron M. Prussian, Todd V. Royer, and G. Wayne Minshall, Idaho State University. June 1999.

Regional Baseline Geochemistry and Environmental Effects of Gold Placer Mining Operations on the Fortymile River, Eastern Alaska. Department of Interior, U.S. Geological Survey. Open-File Report 99-328. 1999.

Regional Geochemical Results from the Analyses of Rock, Water, Soil, Stream Sediment, and Vegetation Samples--Fortymile River Watershed, East-Central Alaska. Department of Interior, U.S. Geological Survey. Open-File Report 99-33. 1999.

The following references were used in an unpublished research effort entitled "A Review of the Regulations and Literature Regarding the Environmental Impacts of Suction Gold Dredges," April 1993 by Phillip A. North of the Environmental Protection Agency, Region 10, Alaska Operations Office.

Griffith, J.S. and D.A. Andrews. 1981. Effects of a small suction dredge on fishes and aquatic invertebrates in Idaho streams. *North American Journal of Fisheries Management* 1:21-28.

Hassler, T.J., W.L. Somer and G.R. Stern. 1986. Impacts of suction dredge mining on anadromous fish, invertebrates and habitat in Canyon Creek, California. Calif. Coop. Fish. Res. Unit., Humboldt State University, Arcata, California, Coop. Agreement No.14-16-009-1547, Work Order No. 2. 135 pages.

Harvey, B.C. 1986. Effects of suction gold dredging on fish and invertebrates in two California streams. *North American Journal of Fisheries Management* 6:401-409.

Huber, C. and D. Blanchet. 1992. Water quality cumulative effects of placer mining on the Chugach National Forest, Kenai Peninsula, 1988-1990. U.S. Forest Service, Chugach National Forest, Alaska Region. 74 pages.

Thomas, V.G. 1985. Experimentally determined impacts of a small suction gold dredge on a Montana stream. *North American Journal of Fisheries Management* 5:480-488.