

**DECISION DOCUMENT**  
**Alaska Department of Environmental Conservation**  
**Forest Practices Program**  
**March 21, 2005**

**Wastewater Disposal Individual Permit**  
**Koncor Forest Products Company**  
**Barefoot Beach Log Transfer Facility**  
**Kazakof Bay, Afognak Island**  
**Permit Number 2005-DB-0002**

Koncor Forest Products Company (KFP) applied for a State Wastewater Disposal Individual Permit (State IP) on November 5, 2004, for the discharge of bark and wood debris from log transfer and storage and ship loading at the Barefoot Beach Log Transfer Facility (LTF) in Kazakof Bay on Afognak Island, 15 miles north of Ouzinkie.

This Decision Document presents an assessment of regulatory issues with respect to issuance of the State IP.

**Background**

The Barefoot Beach LTF, owned and operated by Koncor Forest Products or operated by other entities by contract, was constructed in 1989 and 1990. The LTF was used continuously through 2000, and transferred an average of 30 million board feet of timber annually. At the LTF, harvested logs are stored on land prior to loading ships for transport to markets. Logs are trimmed, sorted, and bundled at the LTF. Log bundles are transferred to water using the existing transfer ramp and slide with angle of approximately 9.75 percent. Log bundles are transferred no more than two weeks prior to the expected arrival of a log ship. The bundles are placed on the slide by a log loader until four or five bundles are staged. The log loader pushes the bundles forward so that the bundle closest to the water floats off. A boom boat or the wind then pushes each bundle to an open raft just offshore. A raft is surrounded by boomsticks once it contains a certain order of logs or a maximum of 250,000 board feet.

The project area is 19.9 acres, including 13.4 acres at the LTF site at Barefoot Beach, equivalent to the area of the State Tideland Lease (Figure 3), and including 6.5 acres at the ship loading site approximately 1/4 mile offshore from the LTF site, 950 feet long by 300 feet wide, centered lengthwise on the two mooring buoys (Figure 2). Log rafts are stored in marine waters within the project area until the logs are moved to the ship site for loading onto ships and transport to markets. Bundles are stored in the deepest water available at the site so that loose bark will migrate to deeper water with wave and current action. All rafts are contained by their own boom sticks, the stiffleg, and a storm boom, and cannot ground. Shutout rafts are removed from the water if a subsequent ship is not imminent. The facility can transfer about 300,000 board feet of logs per day, depending on weather.

KFP has not transferred logs at the LTF since 2000. Another operator, TransPac, has been using the LTF in recent years. TransPac operations at the LTF ceased in February 2005. TransPac is moving operations to the Marmot Bay LTF owned by the Afognak Native Corporation. The Barefoot Beach LTF may be used for "overflow" transfer operation, and use may resume in 2007 if a new timber harvest area is activated. Log volume transferred in 2004 by TransPac was 31 mmbf.

The KFP application, and the draft State IP, set a maximum log transfer volume of 50 million board feet annually. However, the application states that expected transfer volume is 10 mmbf in each of the first four years, and 40 mmbf in the fifth year.

KFP applied for an LTF General Permit authorization in 2000. The Barefoot Beach LTF was listed as an impaired waterbody in 1998 on the State's 303(d) list based on a dive survey in 1997 that found 1.8 acres of bark cover. The listing threshold was 1.0 acre in 1998, but was changed to 1.5 acres in 2002-2003. Dive surveys in 2001 and 2002 found 1.2 and 3.0 acres of continuous bark. The final decision in the adjudication of the ADEC certification of the General Permits in May 2002 determined that a 303(d)-listed waterbody is not eligible for coverage under the General Permit. The site remains on the 303(d) list, and therefore is not eligible for General Permit coverage. However, a dive survey in 2004 found that continuous cover bark had decreased to 0.2 acre. The site is expected to be removed from the 303(d) list when the list is revised in 2005. Although the LTF meets the terms and conditions of the General Permit, this ineligibility requires issuance of an individual permit to authorize bark discharge at the Barefoot Beach LTF.

The draft State IP is written to be congruent with the key terms and conditions of the General Permit, particularly the Zone of Deposit authorization and the requirement for a Remediation Plan if certain limits are exceeded.

No public comments were received during the public notice period. A courtesy review opportunity was extended to the Office of Habitat Management and Permitting and the Division of Mining, Land, and Water in the Department of Natural Resources; neither office submitted comments.

The Barefoot Beach LTF received a consistency determination from the Alaska Coastal Management Program in 1989. Because the site is in the Alaska Maritime Refuge, a permit was granted by the U.S. Fish and Wildlife Service in 1990 after extensive biological review. An endangered species review by the U.S. Fish and Wildlife Service in 2000-2001 determined that endangered species were not threatened, notably the Stellar's eider.

The Barefoot Beach LTF also received an EPA NPDES bark discharge permit, probably in 1990, which was certified by ADEC.

In February 2000, ADEC requested the Kodiak Island Borough to identify enforceable policies in its coastal district plan to which activities at the LTF might be subject. The Kodiak Island Borough identified various policies from its coastal plan. Based on the submittal, ADEC determined that project activities are not subject to the stated policies, and determined that review of project activities under the Alaska Coastal Management Program was not necessary.

In sum, the Barefoot Beach LTF is an existing facility that received all necessary permits in 1989 and 1990; was found consistent with ACMP; and received additional scrutiny in the USFWS reviews of 1990 and 2001.

### **Contents of the State Wastewater Disposal Permit**

The State IP should be reviewed in order to understand the terms and conditions contained. The permit contains the following sections:

1. Project Description and Project Area
2. Authorized Discharges
3. Log Volume Limitations
4. Operating Practices
5. Zone of Deposit
6. Bark Monitoring Program
7. Proposed Remediation Plan
8. Petroleum Discharge Monitoring and Reporting
9. Pollution Prevention Plan
10. Annual Report
11. Reporting Addresses
12. Compliance with Alaska Administrative Code
13. Prohibition of Discharge
14. Discharge Noncompliance
15. Adverse Impact
16. Civil and Criminal Liability
17. Access and Inspection
18. Application for Modified Discharge
19. Application for Renewal
20. Records Retention
21. Information Access
22. Transfer of Permit
23. Cultural or Paleontological Resources
24. Other Legal Obligations

The State IP establishes operating practices; sets limits for volume of log transfer and storage; requires monitoring of bark following each year of operation; requires preparation and submittal of a Pollution Prevention Plan; and requires preparation and submittal of a Remediation Plan if continuous coverage by bark and wood debris exceeds both 1.0 acre and a thickness of 10 centimeters at any point.

The Alaska Water Quality Standards establish pollution limits for all waters, that may not be exceeded. Nonetheless, the standards contain several provisions that allow adaptation to economic and social necessity. The Antidegradation Policy recognizes that economic and social conditions may be a basis for lowering existing water quality. The Mixing Zone provision, Zones of Deposit, and other provisions provide avenues--and the responsibility--for ADEC to modify standards where appropriate, for economic and social purposes. The Antidegradation Policy and the Zone of Deposit provision are described below.

### **Antidegradation Policy**

The Antidegradation Policy of the Alaska Water Quality Standards (18 AAC 70.015) states that existing water uses and the level of water quality necessary to protect existing uses must be maintained and protected. ADEC may allow reduction of water quality only after finding that five specific criteria are met. These criteria and the ADEC's findings are set out below.

1. 11 AAC 70.015 (a)(2)(A). Allowing lower water quality is necessary to accommodate important economic or social development in the area where the water is located.

The applicant has provided the following information respecting this criterion. The Afognak timber operation employs 70-75 full time workers on an annual basis. In addition, 21-22 longshoremen are needed for an average of one week per month to load ships. There is a steady annual income for the owner corporations from the sale of timber products, which could be increase if additional timber became available for sale. The project is scheduled to continue for 15 years and could go on forever without government buyouts of other private timber that is tributary to this facility. This log transfer facility with on-site ship loading to take timber to export markets is the only feasible system to develop Ouzinkie and Natives of Kodiak timber resources.

ADEC concurs that operation of the Barefoot Beach Log Transfer Facility constitutes important economic development in the area, with corresponding social significance.

Because the Residue criteria of the Water Quality Standards prohibit any residues in the water or on the bottom, and logs in storage in water are known to discharge bark, ADEC believes that authorization of a Zone of Deposit, and the corresponding lowering of water quality, are necessary to accommodate operation of the LTF.

ADEC concludes that this criterion is met.

2. 11 AAC 70.015 (a)(2)(B). Except as allowed under this subsection, reducing water quality will not violate the applicable criteria of 18 AAC 70.020 or 18 AAC 70.235 or the whole effluent toxicity limit in 18 AAC 70.030.

ADEC concludes that this criterion will be met outside the authorized Zone of Deposit.

3. 11 AAC 70.015 (a)(2)(C). The resulting water quality will be adequate to fully protect existing uses of the water.

The Barefoot Beach LTF has operated since 1990 without apparent adverse impact on biological or human uses of surrounding waters. The LTF location is very remote; the nearest populations are the village of Ouzinkie, 15 miles south, and the town of Kodiak, 25 miles south. Access to Kazakof Bay by these populations requires a major crossing of open ocean.

Biological resources of waters in Kazakof Bay were evaluated extensively in the permit reviews and ACMP review in 1989-90; in the USFWS refuge review of 1990; and in the endangered species review of 1990.

KFP's application for an individual discharge permit states the following regarding siting and uses.

All existing, traditional and recreational uses of the waters in the vicinity of the LTF and LSF were documented in our original R/W permit application # M-263-AM with USF&WS dated 4/24/90 and are on file with their office.

There has been no permanent or obvious degradation of water quality since the facility began operating in 1990 and existing uses of the water continue.

The ecological productivity of Barefoot Beach Bay was documented by USF&WS divers prior to our R/W permit # M-263-AM application. The results of these surveys are on file with their office.

This LTF and LSF were sited, by consensus, of all the regulatory agencies and users prior to application. The site appears to be the best location for the facility on the S side of Afognak Island adjacent to Koncor managed uplands. From our fourteen years of experience here, including hindsight, we have not changed our opinion as to the merits of this decision.

Barefoot Beach was selected for our LF and LSF because the peninsula NW of the facility offered some protection from NW storms. The site was selected because Koncor and our consultants conclude that documented and observed wave action would help the loose bark migrate downhill to deeper water SW of the rafting grounds. This appears to be happening after observing our dive surveys mapping the ZOD since 1991. All of the hydrographic information is on file with our original application.

No public comments or State or federal agency comments were received during the public notice period.

4. 11 AAC 70.015 (a)(2)(D). The methods of pollution prevention, control, and treatment found by the department be most effective and reasonable will be applied to all wastes and other substances to be discharged.

The methods of prevention, control, and treatment ADEC finds to be most effective are the practices and requirements set out in the State IP. These methods include operating practices, limits on log volumes, limits on discharge, a pollution prevention plan, monitoring requirements, bark remediation, quarterly and annual reporting, and other measures. ADEC concludes that this criterion is met.

5. 11 AAC 70.015 (a)(2)(E). All wastes and other substances discharged will be treated and controlled to achieve  
(i) for new and existing point sources, the highest statutory and regulatory requirements;  
and  
(ii) for non-point sources, all cost-effective and reasonable best management practices.

In ADEC's understanding, no BAT treatment and control requirements are specifically applicable to log storage. ADEC believes that the highest statutory and regulatory requirements for point sources, and the cost-effective and reasonable best management practices for nonpoint sources, are the practices and requirements set out in the permit. ADEC concludes that this criterion is met.

Conclusion. ADEC finds that issuance of a State individual wastewater disposal permit for discharge of bark and wood debris at the Barefoot Beach LTF is consistent with the Antidegradation Policy of the Alaska Water Quality Standards.

### **Zone of Deposit**

Under the Zones of Deposit provision of the Alaska Water Quality Standards (18 AAC 70.210), the Department may allow deposit of substances on the bottom of marine waters within limits set by the Department. The water quality criteria and the antidegradation requirement may be exceeded in a Zone of Deposit, but must be met at every point outside the Zone of Deposit.

The proposed Zone of Deposit authorizes accumulation of bark and wood debris on the ocean bottom within the project area proposed by the applicant, which includes Log Storage Area A (17.7 acres), Log Storage Area B (19.1 acres), the Ship Loading Area C (9.2 acres), and the Transfer Area (1.1 acres). These areas are depicted in the figure on page 3.

Accumulation of bark and wood wastes in the Zone of Deposit is constrained by the annual limits on bark discharge and accumulation set in the permit. Monitoring requirements include bark capture using baskets suspended under log storage, and dive and video surveys of the bottom.

In authorizing a Zone of Deposit, ADEC must consider six criteria. These criteria and ADEC's findings are set out below.

1. *Alternatives that would eliminate, or reduce, any adverse effects of the deposit.*

Barging logs to the ship loading site potentially could avoid transfer and storage of logs in the water. KFP's application for a discharge permit states the following.

Koncor has considerable experience and a long history of barging logs on Afognak Island. This method was required at our Discovery Bay LTF from 1977 until we moved to Barefoot Beach in 1990.

Barge liting is more expensive and impractical for the following reasons.

- It takes over twice as long to load a ship using barges rather than rafts not including the twenty four hour per day barge loading operation.
- A tugboat, which is not always available, is required to tow barges where a smaller freight boat or boom boat can tow rafts and be used between ships for day to day operations.
- Barges are high maintenance pieces of equipment and inherently dangerous at remote locations. Loading is done at night where tons of logs need to be swung over people's heads to tally inventory and attach and detach slings. Barges can only be repaired after being towed to a dry dock, with their schedule, again requiring a tug boat charter. Bilge pumping and ballasting is a never ending chore. Several crewmembers were almost overcome by carbon monoxide while ballasting the barges and several more could have been electrocuted while pumping bilges. Two men almost drowned when a barge turned over while loading and another man had to be rescued when a barge broke loose. A dry dock worker died from bad air when working in the hold at the drydock.
- Barges are difficult to store between ships without a tugboat to move them.
- A specialized crane is needed to load barges. This machine is then on standby until the next shipment. The crane has no practical application in day to day operations and if it breaks down the whole ship loading operation is on hold until it is repaired.
- It is difficult to purchase barges that will work and still meet Jones Act requirements.

Barges are rarely used to load ships in Alaska; the practice is universally discouraged by timber operators.

DEC concludes that no viable alternative to the proposed log transfer, storage, and ship loading at Barefoot Beach is reasonably available.

## *2. Potential direct and indirect impacts on human health.*

There is no indication that log transfer and storage and discharge and accumulation of bark and wood debris at the Barefoot Beach LTF will adversely affect human health.

## *3. Potential impacts on aquatic life and other wildlife, including the potential for bioaccumulation and persistence.*

Based on extensive agency reviews as well as 14 years of LTF operation, there appear to be no apparent significant adverse impacts on aquatic life and wildlife at the Barefoot Beach LTF outside the proposed Zone of Deposit. There is no expectation for bioaccumulation or persistence of toxic pollutants.

## *4. Potential impacts on other uses of the waterbody.*

Other uses of the waterbody are limited, and Barefoot Beach is a very small portion of Kazakof Bay, as well as a long-established use. No significant potential impacts on other uses of the waterbody are expected.

*5. Expected duration of the deposit and any adverse effects.*

Despite fairly large volumes of logs transferred over a period of 14 years, the most recent dive survey in 2004 found continuous cover by bark to be only 0.2 acres. Earlier dive surveys found as much as 2 to 3 acres. It is clear that bark is being effectively dispersed to deeper water at this site, which has moderate underwater slope and considerable storm exposure. With little additional log transfer expected during the life of the permit, significant continued bark accumulation is not expected. Adverse effects of bark accumulation will be contained to the project area. A Remediation Plan is required if continuous bark exceeds 1.0 acre and a thickness of 10 centimeters at any point.

*6. Potential transport of pollutants by biological, physical, and chemical processes.*

As indicated, substantial transport of accumulated bark to deep water appears to take place at the Barefoot Beach LTF. Transport of pollutants, whether bark itself or chemical leachates, is not expected to cause significant adverse effects.

Conclusion. ADEC finds that issuance of a State individual wastewater disposal permit for discharge of bark and wood debris at the Barefoot Beach LTF is consistent with the Zones of Deposit provision of the Alaska Water Quality Standards.

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