

FACT SHEET

**Draft Wastewater Disposal Permit
for Discharge of Bark and Wood Residues
in Ward Cove
by the Ketchikan Gateway Borough**

**Alaska Department of Environmental Conservation
Division of Water
February 2004**

Introduction

The Ketchikan Gateway Borough (KGB) has applied to the Alaska Department of Environmental Conservation (ADEC) for a State individual wastewater disposal permit to authorize the discharge of bark and wood residues into Ward Cove from log storage and transfer activities over a five year period. The purpose of log storage is to supply logs to the veneer plant owned by KGB at Ward Cove, and to load ships with logs for transport to markets.

ADEC has prepared a draft discharge permit, and now is seeking public comment. The public comment period begins February 13, 2004, and ends March 19. A copy of the public notice is attached to this Fact Sheet.

This Fact Sheet explains the proposed log storage activity, and environmental and permit issues.

Proposed log storage

KGB requested authorization for storage of 60 million board feet (mmbf) of logs per year in two areas of Ward Cove. Area A is approximately 17.7 acres at the head of the cove, and Area B is approximately 19.1 acres along the bend in the middle of the northwest shoreline. Logs could be stored only within these two areas. A Transfer Area of 1.1 acres is designated adjacent to the log lift between Area A and the shore at the head of the cove. Logs would be transferred from the water to land by the existing log lift within this area. In addition, KGB requested authorization for temporary storage of 20 mmbf of logs per year, that would be loaded onto ships within a Ship Loading Area (Area C) by other operators for transport to markets.

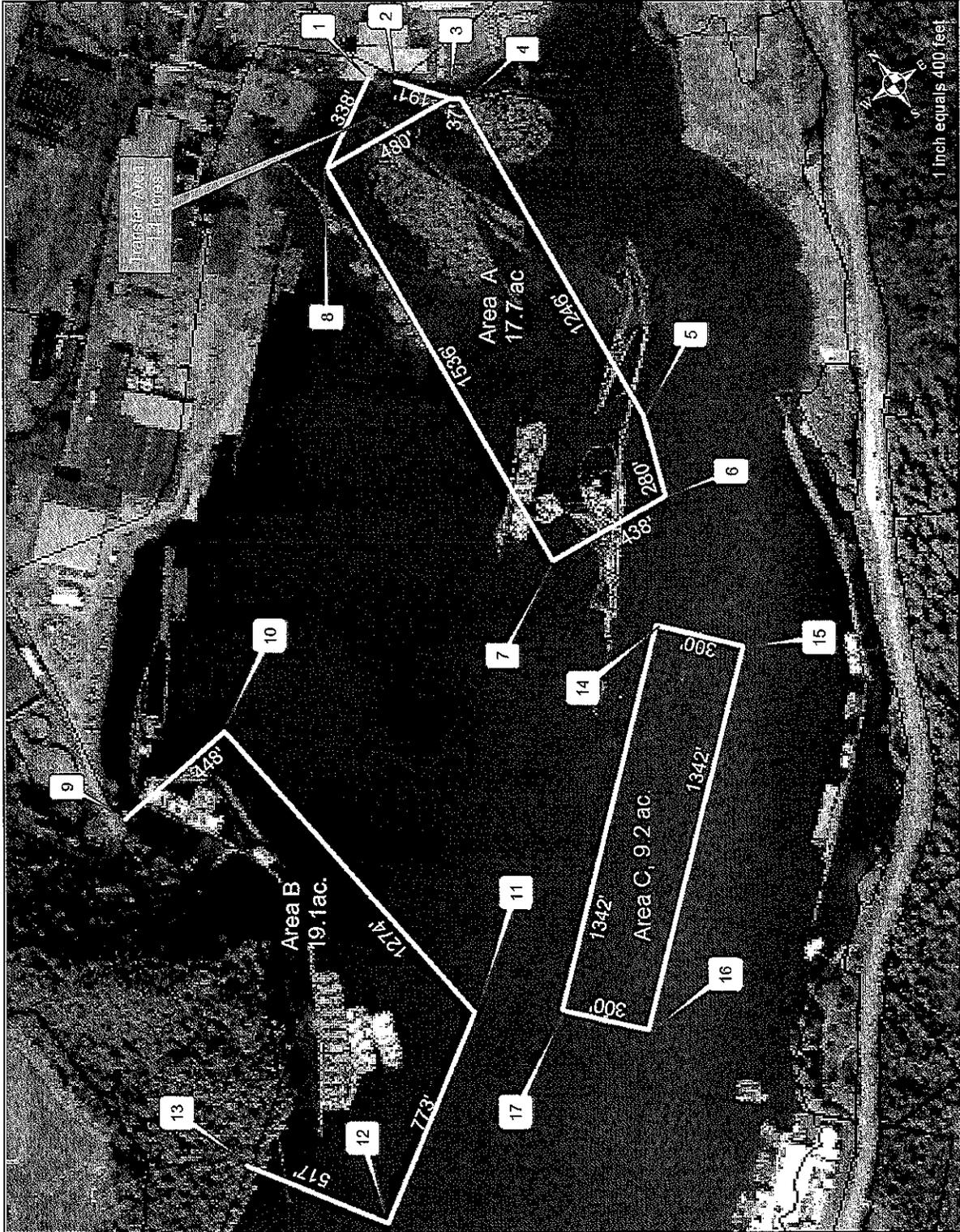
The map on the following page illustrates the four areas. Area A would be the main storage area for logs to supply the veneer plant. Area B would be used for additional winter storage of veneer logs, and for temporary storage of logs headed for ship loading. Area A may be used for storage of logs for ship loading if Area B is not available. It is assumed that up to 20 per cent of logs would not be of sufficient grade for the veneer plant, and would be turned into chips.

ADEC proposes in the draft permit to authorize storage of 40 mmbf annually for the veneer plant and 20 mmbf for ship loading. KGB has stated that 40 mmbf annually is required to operate the veneer plant with two shifts, the minimum for viable economic operation. The draft permit includes a Zone of Deposit for the accumulation of bark and wood residues on the bottom of Ward Cove, with strict discharge limits and monitoring requirements. Permit terms are discussed further below.

Impaired Status of Ward Cove

Ward Cove has been listed by ADEC and the U.S. Environmental Protection Agency (EPA) as an impaired waterbody since 1990 under Section 303(d) of the federal Clean Water Act. The pollutant parameters of concern are wood residues, sediment toxicity, and dissolved oxygen (DO). Section 303(d) listing means that there is documented exceedance of the State water quality standards in the waterbody for the given pollutant parameters. This listing also means that waterbody recovery plans known as Total Maximum Daily Loads (TMDLs) must be prepared by ADEC and EPA.

Map of Proposed Log Storage Areas in Ward Cove



Ketchikan Pulp Company operated a pulp mill at Ward Cove from 1954 until 1997, when the facility ceased operation. KPC also operated a sawmill at the head of the cove beginning in 1989, for which the log lift was built. Gateway Forest Products acquired and operated the sawmill in 1999-2000, and constructed and operated a veneer plant at the head of the cove in 2000-2001. Over the entire period, an estimated six billion board feet of logs--up to approximately 250 mmbf per year--were stored in the cove.

The residues impairment is due to pulp wastes discharged by the mill, and sunken logs and bark wastes from log storage. These wood residues cover roughly 75 percent of the bottom of the cove in varying degrees. More than 16,000 sunken logs occur in densities from less than 100 logs per hectare (roughly 2.5 acres) to greater than 500 logs per hectare. At greatest density in the upper center of the cove, the logs are piled 15 to 20 feet thick on the bottom of the cove. Extensive areas of watery, flocculent, black, organic-rich sediment occur over more than half of the bottom, including the pulp mill frontage, the upper center and upper south shore, and the northwest shore out to the mouth of the cove. This sediment is four to 10 feet thick over most of the area, but tapers to less than one foot towards the center mouth of the cove. The sediment is presumed to be derived from decomposition of pulp residues, bark wastes, and other wood wastes that were accumulated during the life of the pulp mill.

The sediment toxicity impairment, at relatively mild levels, is due to ammonia, sulfides, and 4-methyl phenol, which are formed as by-products of the degradation of wood residues in sediments. The EPA Superfund program identified 80 acres of the sediments on the bottom of the cove as having toxicity levels of ecological concern. In the winter of 2000-2001, the Superfund program conducted remediation activities, dredging three acres of sediment, and capping 30 acres with sand.

The dissolved oxygen impairment is caused by a combination of natural and human-caused factors. When the pulp mill was operating, it discharged large quantities of solid and dissolved organic matter. The decomposition of that organic matter caused depletion of DO in the surface water of the cove. That issue disappeared upon closure of the pulp mill in 1997.

The continuing DO impairment occurs in deeper water in summer months. The water becomes stratified due to seasonal warming, creating a warmer surface layer five to 10 meters deep. Oxygen in deeper water is depleted naturally by respiration and decomposition of marine life. There is limited ability to replenish oxygen from the surface due to the barrier imposed by the stratification. Any organic matter introduced by discharge in the deeper water under these conditions will further reduce oxygen levels as the material decomposes.

In years prior to 2003, fish wastes were discharged in summer months by the Wards Cove Packing Company cannery through a pipe terminating roughly 90 feet deep on the south side of the cove. Extensive monitoring of oxygen levels from 1996 to 2002 typically found the lowest DO values in summer months in deeper water of the inner cove to be in the range of 1 to 3 mg/l, well below the State water quality standard of 5 mg/l. DO values below 3 mg/l are expected to cause acute impacts to marine organisms upon prolonged exposure. The cannery closed operation at the end of 2002. Monitoring in August and September 2003, in the absence of fish waste discharge, found DO in deeper water to be consistently just above or just below 5 mg/l, indicating substantial recovery from previous years.

The discharge of fish wastes included both ground solid and suspended liquid material. The solid portion generally sank to the bottom and formed a waste pile at the discharge point offshore from the cannery, which was authorized by the EPA and ADEC discharge permit issued to the facility. The liquid portion mixed with ocean water and was carried into the cove by the prevailing counterclockwise circulation. This allowed a long residence time in which decomposition could take place, with corresponding reduction of DO levels.

Wood residues on the bottom of the cove also contribute to oxygen reduction. However, computer modeling, based on limited ambient monitoring, has indicated that wood wastes contribute only 0.1-0.2 mg/l overall to the depression of DO.

TMDLs for Ward Cove

ADEC and EPA jointly are preparing TMDLs for Ward Cove. A TMDL first assesses pollutant conditions, then determines the "loading capacity," or amount of a pollutant that a waterbody can receive and still meet water quality standards. The loading capacity is then translated into "wasteload allocations" that allocate shares of the pollutant load to various sources that discharge the pollutant. The wasteload allocations must be expressed in quantitative terms, such as kilograms per day, with a clear basis for derivation of the stated quantities. Thus, the Ward Cove TMDLs will govern discharge permits that are issued after finalization of the TMDL, and may cause existing permits to be superseded.

DEC and EPA are working to determine the wasteload allocation for residues in the Ward Cove TMDL. DEC expects the TMDL to contain a residues allocation sufficient to allow EPA to issue an individual discharge permit for log storage that is parallel to the draft State discharge permit.

In 1994, EPA completed a TMDL addressing low DO levels in the surface one meter of water in Ward Cove. The DO problem in the surface water was linked to the process wastewater discharged from the pulp mill. The State water quality standard for DO in the top one meter is 6 mg/l, in contrast to 5 mg/l in the water below one meter. With the demise of the pulp mill, the 1994 TMDL is moot.

Water Quality Standards

The Alaska Water Quality Standards (AWQS) are regulations under the Alaska Administrative Code at 18 AAC 70. The standards may be viewed on the ADEC website at <http://www.state.ak.us/dec/title18/title18.htm#70>.

The Water Quality Standards contain tables of criteria for 12 "pollutant parameters" that establish pollutant limits in fresh and marine waters, regardless of source. The pollutant parameters are color, fecal coliform bacteria, dissolved gases, dissolved inorganic substances, petroleum hydrocarbons, pH, radioactivity, residues, sediment, temperature, toxic substances, and turbidity. For each parameter, there are seven "designated uses" of waters, and each designated use under each parameter has a specific associated criterion, or limit. The standards establish that the most stringent criteria among designated uses are applicable for a pollutant parameter. The criteria are set at levels intended to maintain the ecological health of marine life. The criteria may be numeric criteria, expressed in units such as micrograms or milligrams per liter, temperature degrees, pH units, and turbidity units. The criteria also may be narrative statements of pollutant limits.

The water quality standards include several additional provisions, notably the antidegradation policy and a number of exception provisions--Short-term Variances, Mixing Zones, Reclassification, Site-specific Criteria, and Zones of Deposit (ZODs).

The criteria for the "Residues" parameter are narrative criteria that vary somewhat among the designated uses. In summary, the criteria state that Residues may not make the water unfit or unsafe for designated uses; may not cause leaching of toxic or deleterious substances; and may not cause a sludge, solid, or emulsion to be deposited on or in the water, on the bottom, or on adjoining shorelines. Residues are defined as "floating solids, debris, sludge, deposits, foam, scum, or any other material or substance remaining in a waterbody as a result of direct or nearby human activity." Thus, the Residues criteria prohibit deposit of residues in the water or on the bottom, unless a Zone of Deposit is authorized.

The Zones of Deposit (ZOD) provision is associated with the Residues parameter. The ZOD provision authorizes ADEC, in a permit, to "allow deposit of substances on the bottom of marine waters within limits set by the department." A ZOD is authorized at DEC's discretion. DEC must "consider" impacts on human health, impacts on aquatic life, impacts on uses of the waterbody, alternative methods, and other factors.

ADEC traditionally has granted Zones of Deposit to Log Transfer Facilities (LTFs) and to seafood processors. Under the LTF General Permits governing most LTFs (see below), the authorized Zone of Deposit is the "project area," the entire operating area of the LTF. However, a "threshold" is established of one acre of continuous coverage by bark and wood debris. If the one-acre threshold is exceeded, the operator must prepare and submit a "remediation plan" to reduce continuous coverage to less than one acre.

In the case of the proposed individual permit for log storage in Ward Cove, the Zone of Deposit is the same as the project area--the two log storage areas, Transfer Area, and Ship Loading Area. There is no limit on accumulation of bark in Area A and Area B. Rather, there are limits on the volumes of bark that may be discharged annually. In the Transfer Area, the limit is placed on accumulation. The Ship Loading Area is given no discharge or accumulation limit. These features are further described below.

The Permit Situation

Any transfer or storage of logs in marine waters for commercial purposes requires a permit from ADEC, and a permit from EPA. The discharge of bark from the transfer of logs from land to water has been regulated by the agencies since 1985. From 1985 to 1996, EPA issued NPDES individual discharge permits to LTFs, which were certified by ADEC. In 2000, two General Permits were developed by EPA and certified by ADEC, with adoption as State permits. The General Permits expanded coverage to encompass all placement or holding of logs in water, including transfer of logs from water to land, transfer to or from vessels, transfer by helicopters, and storage of logs in water.

Most LTFs are permitted jointly by ADEC and EPA under the General Permits. Each LTF, including log storage sites, must obtain a written authorization to discharge bark in accordance with the General Permits from both ADEC and EPA (excepting LTFs operating before 1985, which are authorized automatically by EPA).

Prior to implementation of the LTF General Permits in 2000, log storage in Ward Cove was not subject to EPA and ADEC discharge permitting. In 2000, EPA issued a General Permit authorization to Gateway Forest Products for log storage and transfer at the head of the cove adjacent to the log lift and the northeast end of the pulp mill dock. The authorized area is approximately 25 acres, and encompasses Area A. This authorization was transferred to the Ketchikan Gateway Borough in August 2003. It expires in March 2005, but could be extended or reissued.

However, ADEC is prohibited from issuing a General Permit authorization for log storage in an impaired waterbody by the 2002 decision in the adjudication of the State certification of the EPA General Permits. That is the reason KGB must obtain an individual discharge permit from ADEC for the proposed log storage. If the TMDL contains a sufficient wasteload allocation for residues, EPA would be expected then to issue an "NPDES" individual discharge permit to KGB. This permit would be certified by ADEC, and would constitute a State permit, as well. This permit likely would supplant both the existing EPA general permit authorization, and the proposed State individual permit, if issued.

Area A and the Transfer Area in the KGB permit application lie within the area of the EPA general permit authorization. If ADEC issues the proposed individual permit, KGB will be authorized to conduct log storage and transfer in the area that is common to the two permits, which is Area A and the Transfer Area.

Area B and the Ship Loading Area are outside the area of the EPA general permit authorization. Therefore, KGB will not be authorized to conduct log storage and ship loading in those respective areas. KGB will need additional authorization from EPA in order to utilize those areas, through either a modified or new General Permit authorization, or an individual permit.

At present, a privately-owned floating logging camp, with dimensions of roughly 150 by 600 feet, intended for use as a tourist facility, is moored within Area B. Use of Area B for log storage is not feasible, so long as the logging camp remains in place. Because KGB holds title to the submerged lands in Area B, continued use of the area by the logging camp is at the discretion of KGB.

The Draft Permit

An individual discharge permit, if issued by ADEC, would have a life of five years. Following is a description of the main provisions of the draft permit.

1. Project Description: Indicates that log storage will take place in marine waters within the project area of Ward Cove until logs are transferred to land by the log lift serving the veneer plant or are loaded onto ships for transport to markets. Describes the sizes of log storage Area A and Area B, the Transfer Area, and the Ship Loading Area. Includes a location map and a project area map.

2. Operating Practices: States nine requirements of operation including employing all reasonable operating practices to avoid discharge of bark and to contain discharge to the smallest area practicable; marking the boundaries of storage areas; containing logs in bundles; storing logs only in Areas A and B; avoiding the discharge of petroleum products; removing bark daily from the log deck at the log lift; and prohibiting deposit of solid waste other than bark in marine waters.

3. Log Volume Limitation: The annual volume of logs stored for the veneer plant is limited to 40 mmbf. The annual volume of logs stored for ship loading is limited to 20 mmbf. In total, this log volume represents approximately 25 percent of the maximum annual volume when the pulp mill was in operation.
4. Discharge Limitations: The volume of bark discharged annually may not exceed 287 m³ in Area A, or 309 m³ in Area B. This corresponds to a conceptual, uniform bark accumulation thickness of 2 centimeters (0.8 inch) on the bottom in Area A or Area B over five years, the life of the permit. Actual bark accumulation will not be uniform in thickness. The volume of bark that accumulates annually in the Transfer Area may not exceed 89 m³. This corresponds to a uniform bark accumulation thickness of 10 centimeters (4 inches) over five years. If bark accumulation in the Transfer Area exceeds 30 centimeters thickness at any point, the permittee must remove continuous-cover bark to the extent practicable within the Transfer Area. There is no limit for bark discharge in the Ship Loading Area, because bark accumulation is expected to be minimal, and because water depth is greater than 100 feet.
5. Zone of Deposit. A Zone of Deposit is authorized within the project area (the entire operating area) for the accumulation of bark and wood debris on the ocean bottom.
6. Bark Monitoring Program: Bark capture--baskets must be suspended under stored logs and retrieved monthly, with the volume and weight of captured bark measured. Bark surveys--dive surveys of bark on the bottom with pictures or videos must be carried out in Area A and Area B and the Transfer Area in April and October of each year, if log storage or transfer has occurred in an area for more than 30 days in the previous six months. A bark survey monitoring report must be submitted within 60 days. The permittee must prepare a Quality Assurance Plan to describe the bark capture and bark survey programs.
7. Petroleum Discharge Monitoring and Reporting: A discharge or release of oil or a hazardous substance must be reported to ADEC and the U.S. Coast Guard.
8. Pollution Prevention Plan: The permittee must prepare a Pollution Prevention Plan that describes specific operational practices that will be used to avoid and minimize the discharge of pollutants, particularly bark discharge.
9. Quarterly Report: Following each calendar quarter, the permittee must submit a report describing log volumes in storage, log volumes transferred to land, log volumes loaded on ships, results of the bark capture program, and oil spills and sheens.
10. Reporting Addresses.
11. Annual Conference: The permittee and the Department will hold a conference in the first quarter of each year to review log storage activities, monitoring, and other issues for the past year.
12. Other Conditions: A number of administrative provisions are included in the permit.

Derivation of Discharge and Accumulation limits

In Area A, the annual discharge limit is 287 cubic meters; in Area B the annual discharge limit is 309 cubic meters. In the Transfer Area, the limit on the volume of bark that may be accumulated annually is 89 cubic meters. Additionally, if bark accumulation in the Transfer Area exceeds 30 centimeters thickness at any point, the permittee must remove continuous-cover bark to the extent practicable.

ADEC, in consultation with EPA, derived bark discharge limits based on conceptual, average bark thickness accumulations in the various areas. In Areas A and B, the conceptual bark thickness is two centimeters over five years (0.4 cm per year, or less than 1/6 inch per year). Multiplying area by thickness yields a conceptual volume of bark accumulation for each area. This volume, divided by five, is adopted as the annual discharge limit for Areas A and B.

Two centimeters was selected as the allowable conceptual accumulation over five years based on certain factors. First, one inch (2.54 centimeters) is approximately the thickness of bark at which coverage becomes "continuous" over the bottom. Second, according to limited scientific literature, one to two centimeters is approximately the thickness of bark residues at which significant adverse impacts to benthic organisms may begin to occur. Third, although speculative, 0.4 centimeters of bark accumulation per year may be similar to the rate of detrital accumulation.

Area A is 17.7 acres; Area B is 19.1 acres. Calculations of the respective discharge limits follow.

Area A:

$$2 \text{ cm} \times 17.7 \text{ acres} / 5 \text{ years} =$$

$$0.02 \text{ m} \times 17.7 \text{ acres} \times 43,560 \text{ ft}^2/\text{acre} / 10.76 \text{ ft}^2/\text{m}^2 / 5 \text{ years} = 287 \text{ m}^3/\text{year}$$

Area B:

$$2 \text{ cm} \times 19.1 \text{ acres} / 5 \text{ years} =$$

$$0.02 \text{ m} \times 19.1 \text{ acres} \times 43,560 \text{ ft}^2/\text{acre} / 10.76 \text{ ft}^2/\text{m}^2 / 5 \text{ years} = 309 \text{ m}^3/\text{year}$$

In the Transfer Area, the conceptual bark thickness is 10 centimeters in five years (two centimeters per year, or 0.8 inch per year). The resulting volume, divided by five, is adopted as the annual accumulation limit within the Transfer Area. The limit is not set as a discharge limit, because there is no log storage in the Transfer Area, and therefore no ability to monitor discharge directly. An allowable thickness of 10 centimeters in five years was selected because this is the depth limit established for traditional LTFs in discharge guidelines for past permits.

The Transfer Area is 1.1 acres. Calculation of the accumulation limit follows.

Transfer Area:

$$10 \text{ cm} \times 1.1 \text{ acres} / 5 \text{ years} =$$

$$0.1 \text{ m} \times 1.1 \text{ acres} \times 43,560 \text{ ft}^2/\text{acre} / 10.76 \text{ ft}^2/\text{m}^2 / 5 \text{ years} = 89 \text{ m}^3/\text{year}$$

Of course, the volume of bark discharged in any area will not be spread evenly on the bottom. But to the extent that there is more bark in some portions, there will be less bark in other portions.

In Area A and Area B, the draft permit requires monitoring of discharge by suspending mesh baskets under logs in storage. Bark captured in the baskets must be measured monthly for volume and weight. These samples then will be extrapolated to the average area of log storage for each area for the month in order to estimate the total volume of bark discharged for the month.

Dive survey monitoring with pictures or videos is required twice per year to assess bark accumulation on the bottom. However, because the bottom of the cove is covered either with logs or with soft, flocculent sediment, it is unknown whether dive assessment of bark accumulation will yield quantifiable results.

In the Transfer Area, dive surveys are required to assess bark accumulation on the bottom. The Transfer Area has been dredged frequently in the past, and may exhibit a more firm bottom, and so may allow more successful assessment of bark accumulation. A dive survey of the bottom is required prior to commencement of log storage and transfer to determine existing conditions.

Additionally in the Transfer Area, if bark accumulation exceeds 30 centimeters (one foot) at any point, continuous-cover bark must be removed within 180 days. Past practice using the log loader when the pulp mill was in operation indicates that substantial bark may accumulate in the vicinity of the log loader, and may require removal. Dredging is the expected method of removal. The permittee must prepare a residues removal and disposal plan and submit the plan to ADEC for review and approval.

Within the Transfer Area, recovery of biological communities may not occur on the bottom, so long as substantial log transfer activity continues.

The loading of logs onto ships in Ward Cove is uncertain at present. The Ketchikan Borough does not hold a discharge permit from EPA for this activity, and cannot allow loading of ships until a permit is obtained. No loading of ships from water has taken place near Ketchikan in recent years. If loading of ships takes place in the cove in the future, it will be intermittent and temporary. The stated volume limit of 20 mmbf per year would load roughly five full ships in a period of about one week each.

ADEC does not believe that bark accumulation from ship loading will be substantial, given the short-term activity. Further, water depth at the ship site is 120 feet or greater, and dive monitoring is not feasible. Because of these considerations, no limit on bark discharge is imposed in the Ship Loading Area.

Assessment of "Recovery"

In light of the impaired status of Ward Cove and the pending TMDL, continued log storage presents a challenging situation. Ward Cove experiences substantial ecological impact to bottom habitat due to the legacy of wood residues left by operation of the pulp mill, sawmill, and veneer plant. The goal of a TMDL is to achieve Water Quality Standards and promote recovery of the waterbody.

The Water Quality Standards protect water quality by establishing pollution limits for water 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.

It is not entirely clear what "recovery" and "achieving water quality standards" would mean in Ward Cove. We don't know what was the original condition of the bottom of the cove. The underlying "natural" substrate at the bottom of Ward Cove is primarily a layer of clay 60 to 90 feet thick. This implies that a soft-bottom habitat formerly existed, although some rock outcrops are present.

The continuing rain of detritus from dead marine life, especially phytoplankton and zooplankton, may be a significant factor in developing substrates and habitat on the ocean bottom, at least where slopes are shallow and currents are slow so that detrital material tends to collect. This material likely contributed to a soft-bottom habitat in Ward Cove prior to log storage, and may have been a predominant factor in determining habitat type. Detrital material similarly may dominate the surface of sediments in the future.

ADEC views the culmination of "natural recovery" in Ward Cove sediments, and the achievement of water quality standards, to be the establishment of a stable, complex, and diverse biological community in the surface sediments. This may occur through a process of continued decomposition of residues, accumulation and decomposition of natural detrital material, and biological succession. This process has been documented to be occurring successfully in Silver Bay near Sitka, at the site of the former Alaska Pulp Corporation pulp mill, within the peat-like pulp residues on the bottom. However, the flocculent sediments in Ward Cove may undergo different physical, chemical, and biological processes than the more solid pulp residues in Silver Bay.

It is expected that the logs on the bottom eventually will decay and collapse, with residual material joining the existing fine sediments, and with development of biological communities as described above.

The time that may be required to achieve stable habitat and biological conditions over the majority of the cove sediments is unknown.

There are several components in the draft permit to minimize the additional accumulation of wood residues. First, log storage in Area A and Area B would be restricted to approximately 15 percent of the area of the cove. Second, bark discharge is limited to a volume equivalent to an average of two centimeters of accumulation over Area A and Area B in a five-year period. Actual bark accumulation will be greater in some portions of the area, and less in other portions. Third, bark accumulation in the Transfer Area is limited to an average of 10 centimeters' thickness in five years, and bark thickness at any point is limited to 30 centimeters. Fourth, a rigorous system of bark monitoring and reporting is specified. Fifth, discharge reductions are imposed if stated limits are exceeded.

It should be noted as well that it may be more desirable to locate log storage in a waterbody that is already impacted, rather than in an unaffected waterbody.

Conclusion

The key question in consideration of a permit for continued discharge of bark is, how much additional wood residue can be deposited on the bottom of Ward Cove, without unduly interfering with the recovery process in the waterbody as a whole?

Given the log storage area limitations, the bark discharge and accumulation limitations, and other controls, ADEC believes that the proposed log storage activity will not significantly impede the recovery of biological communities on the bottom in the waterbody as a whole. Even within the log storage areas, the accumulation of bark is restricted to an average of less than 1/6 inch per year.

ADEC believes that continued log storage in Ward Cove--under these tightly controlled conditions--is reasonable and appropriate in order to support operation of the veneer plant, as requested by the Ketchikan Gateway Borough.

PUBLIC NOTICE
Alaska Department of Environmental Conservation
Draft Wastewater Disposal Permit
for Discharge of Bark and Wood Debris in Ward Cove
by the Ketchikan Gateway Borough

The Ketchikan Gateway Borough has applied for a wastewater disposal permit to allow discharge of bark and wood residues into Ward Cove (four miles northwest of Ketchikan) from log storage and transfer activities over a five year period. The Alaska Department of Environmental Conservation (ADEC) has prepared a draft permit, and now is seeking public comment.

The Borough requested authorization for storage of 60 million board feet (mmbf) of logs annually in two areas totaling 36.8 acres in order to reopen the veneer plant at Ward Cove. The Borough also requested storage of 20 mmbf of logs annually that would be loaded onto ships for transport to markets.

The draft permit would authorize storage of 40 mmbf for the veneer plant and 20 mmbf for ship loading. The draft permit includes a Zone of Deposit for accumulation of residues on the bottom within storage and transfer areas, with bark discharge limits and monitoring and reporting requirements.

Ward Cove is listed as an impaired waterbody for legacy wood residues, and for dissolved oxygen. ADEC is working with the U.S. Environmental Protection Agency (EPA) to prepare a "TMDL" waterbody recovery plan. The TMDL will undergo separate public review, and will govern future permitting of wood residue discharge.

Discharge of bark and wood residues from log storage and transfer requires a permit from ADEC and a permit from the U.S. Environmental Protection Agency (EPA). The Borough presently holds an EPA General Permit authorization for log storage. If ADEC issues the proposed permit, the Borough could utilize only 18 acres for log storage in the authorized area that is common to the two permits.

The draft ADEC permit and a Fact Sheet containing more information are available online at: <http://www.state.ak.us/dec/water/wnpssc/permits.htm>, or by contacting ADEC at the addresses below.

Comments may be sent to Dave Sturdevant, ADEC/Division of Water, 410 Willoughby Ave., Suite 303, Juneau, Alaska 99801-1795, or transmitted electronically to dave_sturdevant@dec.state.ak.us, or sent by FAX to 907-465-5274.

Comments must be received by **5:00 p.m., March 19, 2004**, or postmarked on that date.

ADEC complies with Title II of the Americans with Disabilities Act of 1990. A person with a disability who needs a special accommodation in order to participate in this process should contact Dave Sturdevant at 907-465-5276 no later than March 5, 2004, to ensure that accommodations can be provided.

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