



**King County**  
**Department of Development and Environmental Services**  
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**REPORT AND DECISION**  
**FOR SHORELINE CONDITIONAL USE PERMIT**  
**AND SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT**

**Application Nos.** Shoreline Conditional Use Permit DDES File L02SH012  
Shoreline Substantial Development Permit DDES File L02SH013

**Applicant:** Northwest Aggregates (also known as Glacier Northwest)

**Date of Decision:** March 16, 2004

**INTRODUCTION/BACKGROUND:**

**Applicant's Project Description:** The applicant's overall project proposal is to annually mine and export, using up to 10,000-ton barges, approximately 7.5 million tons (5.5 million cubic yards) of sand and gravel, from a 235-acre site located on the eastern edge of Maury Island, King County, Washington (within portions of Section 28 and 29, Township 22N, Range 3E).

Up to 193 acres would be mined over 11 to 50 years, depending upon the rate of extraction. The rate would vary with market demand. Bulldozers would excavate materials by pushing materials from the slope tops down to collection points, where material would be placed on a collection feeder. The feeder would load a conveyor belt, which would then deliver materials to waiting barges, tended by tugs, at the end of the loading dock.

Glacier Northwest initially requested a shoreline exemption for repairs and upgrades to the existing barge and conveyor system, which would make these features operational for the proposed exporting excavated materials. The conveyer system would be substantially replaced. The dock is likewise in substantial disrepair and has become overgrown with trees and bushes protruding through the structures. Glacier argued that this proposal was exempt from shoreline permit requirements as "normal and routine maintenance and

repair.” King County denied the exemption request on May 31, 2002, upon determining that the project did not qualify as an exempt activity under WAC 173-27-040(2)(b).

In September 2002, Northwest Aggregates (also known as “Glacier Northwest”) applied for a shoreline substantial development permit and a shoreline conditional use permit for a proposed replacement of the existing barge-loading facility on Maury Island. The applicant’s September 2002 proposal was to replace and extend by approximately 72 feet the existing dock in Puget Sound to support barge loading and transport of sand and gravel. The proposed dock extension is one of the recommended mitigation options identified in the Final EIS. The dock extension is intended to move tugboats and barges farther away from nearby eelgrass to reduce potential impacts associated with shading and propeller wash. The applicant’s revised proposal also incorporated other recommended mitigation measures identified in the Final EIS.

Glacier Northwest’s September 2002 proposal is summarized as follows:

- The dock would be open-grated steel with approximately 75 percent open area. The overall gross surface area of the dock would be reduced from 8,490 square feet at present to approximately 7,340 square feet. Relative to the existing dock, the new dock would extend 71.5 feet further into the water at the conveyor (81 feet further measured at the north end of the dock, and 62 feet at the south end).
- The existing conveyors and conveyor supports would be replaced with a similar conveyor system for loading barges. The new system would use steel channel conveyor frames, a steel-framed platform at the conveyor transfer location, a steel-framed take-up tower to keep tension in the barge-loading conveyor belt and cast-in-place concrete foundations.
- The new barge loading dock and conveyor system would require a total of between 62 and 82 piles depending on the results of the geotechnical testing, compared to 228 creosote-treated timber piles for the existing dock. All new piles would be made of steel.
- The main elements of the redesigned dock and conveyor system include a 54-inch-wide barge-loading conveyor that will connect the mine to the loading dock. The conveyor would start about 100 feet landward of the shoreline and would extend about 400 feet from shore over Puget Sound. The over-water section of the conveyor (between the shoreline and dock) would be fully enclosed within a 12-foot-diameter steel pipe called a gallery. The gallery would prevent spillage of materials from the conveyor into the water, reduce noise, and shield conveyor/walkway lighting.
- A telescoping spout will be attached to the discharge end of the conveyor to lower the material to the barge and reduce wind blown dust. The spout will have an adjustable "spoon" chute attached to the end to help distribute the material to the center of the barges.

- Seven dolphins will be constructed to berth and moor the barges. The actual number of piles would be determined during the final design, based on the geotechnical conditions at the site. The dolphins would be spaced about 85 feet apart and extend about 510 feet parallel to the shoreline. Each dolphin would consist of four to six steel piles, two feet in diameter that are connected at the top by a steel frame.
- A "haul-back" system – i.e., a system of winches, cables and pulley wheels used to position the barge during loading operations – would be attached to the top of the dolphin frames. This system will minimize the need for tugboats to use their engines during maneuvering.
- The dock and conveyor would be open-grated steel painted a gray/green color to reduce the appearance of bulk.
- The existing timber dock, trestle, conveyor and dolphins would be removed using water-borne equipment. The above-water portions of the structures will be cut, disassembled, and removed in sections using a derrick (i.e., barge-mounted crane). The removed material would be placed on a barge for transport to an off-site upland work area where it will be unloaded, cut into smaller pieces, and either recycled or trucked to an approved disposal site.
- The in-water work would involve the removal of 228 creosote-treated timber piles, including: 26 piles for the trestle, 71 piles for the dock, 105 piles for the dolphins and 26 piles for the submerged dolphins.

In May 2003, Glacier Northwest submitted a Draft Mitigation Plan describing measures that would be implemented to mitigate potential impacts from barge-loading operations at the extended dock. Mitigation is intended to address potential impacts from gravel spillage, shading, propeller wash, and noise associated with operations. In August 2003, Glacier Northwest submitted a Barge Approach and Departure Protocol to be incorporated into their proposal. The operational procedures specified by the applicant are intended to avoid potential impacts to eelgrass beds from tugboats maneuvering barges at or near the dock. A monitoring plan is also incorporated into the applicant's proposal to monitor propeller wash velocities at the site to verify that the approach and departure protocol is working effectively.

On December 2, 2003, Glacier Northwest submitted a further revision to their proposal extending the dock an additional 20 feet from their previous proposed extension. The revised proposal ensures that the dock face is 120 feet at its closest point from eelgrass in the area. No additional pilings will be required to construct this additional extension from the previous design. Also on December 2, 2003, Glacier Northwest submitted a revision to the Barge Approach and Departure Protocol that incorporates the

recommendations contained in a report by Tetra Tech FW, Inc. to improve the monitoring plan and to specify a contingency plan if eelgrass damage is detected.<sup>1</sup>

Proposed mining would occur from 6 a.m. to 10 p.m. weekdays and from 9 a.m. to 6 p.m. on Saturdays. Barge loading would occur at any time, with up to four 10,000-ton barges (measuring 330 by 80 feet) or a greater number of smaller barges being loaded per day. Up to four 10,000-ton barges a day would be loaded at the facility. Each barge loading operation would take approximately 4.5 hours.

**Project Location:** Portions of Section 28 and 29, Township 22N, Range 3E, on the eastern edge of Maury Island next to Vashon Island and along the East Passage in King County, Washington.

**Waterbody:** Puget Sound

**Shoreline Designation:** Conservancy Environment

**Shoreline of State Significance:** Yes

**Decision:** Based upon the findings and conclusions enumerated below, the above described applications for a Shoreline Conditional Use Permit and Shoreline Substantial Development Permit are both denied.

#### **Applicable Standards for Reviewing Shoreline Conditional Use Permit**

WAC 173-27-160 indicates that “[t]he purpose of a conditional use permit is to provide a system within the master program which allows flexibility in the application of use regulations in a manner consistent with the policies of RCW 90.58.020. In authorizing a conditional use, special conditions may be attached to the permit by local government or the department to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the act and the local master program.”

The section further provides that “uses which are not classified or set forth in the applicable master program may be authorized as conditional uses provided the applicant can demonstrate consistency with the requirements of this section and the requirements for conditional uses in the master program. WAC 173-27-160(3).

King County’s Shoreline Code specifies: The director is authorized to issue shoreline conditional use permits only under the following circumstances: 1) The development must be compatible with uses which are permitted within the master program environment in which the development is proposed. 2) The use will cause no

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<sup>1</sup> In addition to these shoreline modifications, on February 25, 2004, Glacier Northwest submitted a revision to its grading permit application (C92G0075) that reduces the area of mining along the bluff of the shoreline. Except in areas where the bluffs are not present near the shore area, the revised boundary would be at least 400 feet along the shore of Puget Sound. The applicant’s original proposal was to maintain a 200-foot boundary from the shoreline.

unreasonable adverse effects on the shoreline or surrounding properties and uses. (3) The use will promote or not interfere with public use of surface waters. (4) The development of the site will not be contrary to the policies of the master program. KCC 25.32.050(A).

County Shoreline Code makes clear that the burden of proving that a proposed shoreline conditional use permit meets the foregoing criteria rests with the applicant. Absence of such proof shall be grounds for denial of the application; provided, however, that the director is authorized to determine and impose, on a case by case basis, those conditions and standards which may be required to enable any proposed Shoreline conditional use to satisfy the conditional use permit criteria. KCC 25.32.050(B).

### **Applicable Standards for Reviewing Shoreline Substantial Development Permit**

The review criteria for substantial development permits are set forth in WAC 173-27-150. The section provides that: (1) A substantial development permit shall be granted only when the development proposed is consistent with: (a) The policies and procedures of the act; (b) The provisions of this regulation; and (c) The applicable master program adopted or approved for the area. WAC 173-27-150.

### **FINDINGS:**

1. In its May 2002 decision denying Glacier's shoreline exemption request, King County indicated that the dock facility is an accessory mining structure that is neither expressly allowed nor expressly disallowed in the shoreline conservancy environment. The County advised Glacier in 2002 that its proposed dock development would thus appear to require a shoreline substantial development permit (SDP) and shoreline conditional use permit (CUP).
2. In September of 2002, Glacier submitted applications to King County for a shoreline SDP and for a shoreline CUP.
3. DDES has finalized its SEPA review of the proposed dock/barge/conveyor facility. A Final EIS was issued in June 2000. Subsequent to the publication of the Final EIS, the County issued an EIS Addendum in March 2003 that further evaluated project impacts on nearshore eelgrass beds. The County thereafter withdrew this Addendum in April 2003 in order to address additional issues raised by the Vashon Island community. Following further environmental analysis, DDES reissued an EIS Addendum on March 16, 2004.
4. The eelgrass surveys completed for the project identify two significant patches of eelgrass in the immediate vicinity of the existing dock. These patches are bordered to the north and south by larger, continuous eelgrass meadows. Eelgrass patches and meadows are a regional resource that provide a number of widely recognized and valued functions, including primary production, nutrient processing, wave and current energy buffering, organic matter input, habitat refugia for fish and invertebrates, and

food for birds. Organic matter produced through growth and decay of eelgrass has been shown to be incorporated into the diet of fish and other marine animals including juvenile salmon. Juvenile salmon also use eelgrass for feeding and rearing, and Pacific herring (*Clupea harengus pallasii*) use eelgrass as a preferred spawning substrate. Stressors to eelgrass known to cause or be exacerbated by human activities can include propeller scour and wash, physical disturbances from shoreline armoring, and shading from overwater structures.

5. While the Final EIS plainly identified potential impacts to eelgrass from propeller wash, the analysis in that document concludes that such impacts would be mitigated by constructing a “state-of-the-art” dock facility that extends further offshore. The initial assumption by DDES staff was that a 50-foot extension would be sufficient to address eelgrass impacts to non-significant levels. However, based on the information and analysis that became apparent after publication of the Final EIS, DDES determined that a 50-foot extension beyond the existing structure could not reasonably be relied upon to sufficiently reduce propeller wash velocities to below damage thresholds.
6. DDES’ post-Final EIS analysis of eelgrass impacts was conducted in a peer review environmental assessment by Jones & Stokes, with the assistance of Tech Tetra FW, Inc. That review included analysis of conflicting technical reports, studies and comments regarding propeller wash models so that an assessment could be made regarding probable significant impacts to eelgrass areas near the proposed barge-loading dock facility. As noted in the Jones & Stokes Report entitled “Northwest Aggregates Maury Island Gravel Mine SEPA Review of Additional Information,” the third-party peer review assessment of the conflicting prop wash models raises questions about the accuracy and certainty of modeling efforts to predict impacts to eelgrass. While DDES recognizes that the JETWASH model used by the applicant may be more appropriate and applicable than the Maynord Model, it is nonetheless apparent that the JETWASH model’s ability to precisely predict prop wash impacts to eelgrass remains somewhat in question. This remaining uncertainty is the result of the potential effects of scaling in relating laboratory tests used to create the Verhey (and other) models to real-world applications, and, the somewhat uncertain effects of turbulence.
7. The JETWASH model nonetheless reasonably predicts that damage could occur if the dock facility were constructed as proposed in the applicant’s September 2002 shoreline permit applications (DDES File Nos. L02SH012 and L02SH013). The JETWASH model predicts prop wash velocities of 85 centimeters (cm) per second (sec) at a distance of 100 feet from the dock face. This velocity is 10 cm/sec greater than the velocity which damage is known to occur, i.e., 75cm/sec (Hart Crowser, 1997). Exclusive of other factors, the model would predict that a “safe” distance for the berthing face would be achieved at 115 feet from the edge of the eelgrass patches.
8. The uncertainty of precisely predicting such impacts would be properly addressed by incorporating a factor of safety and avoidance systems into the proposal. Avoidance

systems demonstrating that the proposal includes measures to adequately avoid significant impacts include a combination of measures, such as engineered (structural) mitigation, revised operating protocols, and revised comprehensive monitoring measures to achieve a truly “state-of-the-art” facility. As such, and considering the conclusions of the third-party peer review on the prop wash models, the following mitigation measures would reduce potential impacts to eelgrass and their likelihood of occurrence to non-significant levels:

A. Redesign the dock so that no portion of the berthing face is closer than 115 feet from the outer edge of the eelgrass beds on either side of the dock.

B. Revise barge operating protocols and comprehensive monitoring measures to include the recommendations of the third-party peer reviewer (Tetra Tech FW, Inc.) as follows:

Employ an independent third-party to install and operate the current meters.

Install the current meters as close to the seabed as practical.

Hardwire the current meter power source and recording to a station affixed to the dock or designated dolphin. This aids in system maintenance.

Devise a way to turn the current meter recordings on when a tug is within 1,000 feet of the dock and turn the recording off when it leaves the area; otherwise record continuously while the tug is present.

Record the current speed at least two (2) times a second or as reasonable, but do it continuously; no averaging should be allowed.

Have a multi-disciplinary group review the current speed limitations that trigger further action.

C. Prepare a conceptual/contingency plan that includes engineered/structural approaches for reducing prop wash velocities in excess of damage thresholds should the comprehensive monitoring plan determine that excess velocities have occurred. The contingency plan shall also include a provision that, in the event monitoring determines that eelgrass has been damaged, requires remediation in-situ, i.e., replanting in location and prevention of enduring additional disturbance.

9. The applicant’s December 2, 2003 submittal of revised drawings and a revised barge approach and departure protocol, which includes a monitoring and contingency plan, incorporates each of the three measures listed above. Therefore, DDES has determined that the conclusions in the Final EIS and subsequent peer review assessment by Jones and Stokes regarding mitigation of any significant eelgrass impacts associated with the project remain valid.

10. In addition to its post-Final EIS review of eelgrass impacts, the County's environmental staff continued to analyze the process by which the natural deposition of rock sand and sediment from non-shoreline areas feeds beaches below. While this issue is addressed in Section 6.3.5 of the Final EIS and in associated comment responses, such analysis presumed that upper bluff areas to be removed are well vegetated and therefore not expected to contribute greatly to shoreline sediments. Final EIS discussion relating to this issue further notes that additional mitigation has been added to the EIS to increase the buffer area at the western and eastern bluff areas as depicted in Figure 11-8 of the EIS. More recent site evaluations by DDES staff, however, revealed that the degree of vegetation in the upland bluff areas is not as extensive as originally thought. While increased buffers at west and east bluff areas would avoid the probability of any significant sediment-related impacts associated with these areas, there was no certainty that the added buffer mitigation in these areas would actually be imposed or that the applicant would otherwise commit to avoid mining in these areas. Such mitigation would likewise not address erosion and deposition dynamics associated with bluff areas between the eastern and western bluff ends.
11. In response to this concern on February 25, 2004, Glacier Northwest submitted a revision to the grading permit application that would reduce the area of mining along the bluff of the shoreline. Except in areas where the bluffs are not present near the shore area, the revised boundary for excavation activities would be at least 400 feet along the shore of Puget Sound. The applicant's original proposal was to maintain a 200-foot boundary from the shoreline. Based on this revision, DDES is satisfied that this increased shoreline buffer would avoid the probability of any significant sediment-related impacts associated with mining of the upland bluff area. If the grading permit were to be approved, DDES could condition the grading permit to ensure the long-term protection of this bluff.
12. King County's SEPA responsible official has determined that that the evaluation of project impacts, alternatives and mitigation measures set forth in the Final EIS and associated Addendum is reasonable.
13. While Glacier's proposed improved dock and conveyor facility would remain within the designated shoreline conservancy environment, no gravel excavation is proposed within the shoreline.
14. The height of the proposed replacement barge loading structure would not exceed thirty-five feet above the elevation of ordinary high water.



## CONCLUSIONS:

### Shoreline Conditional Use Permit

1. Glacier's proposed dock facility is not permitted outright in shoreline conservancy environment. No shoreline conservancy zone provision set forth in King County Code chapter 25.24 (conservancy environment uses) purports to authorize mine-related dock facilities.
2. King County Shoreline Master Plan Policies recognize the importance of mining gravel resources and generally do not discourage such uses in the shoreline conservancy environment. KCSMP Conservancy Environment Policies at p. 20.
3. By contrast, King County's Shoreline Master program prohibits Industrial Uses within the conservancy environment. K.C.C. 25.24.120
4. While barge loading dock facilities that are associated with an industrial operation can be characterized as industrial uses, Glacier's proposed dock barge facility is accessory to a resource mining use, and is not therefore properly considered an industrial use. Shoreline Master Program policies separately discuss industrial, commercial and mining uses – highlighting the fact that these uses are distinct, and that mining uses are not included in the prohibited category of either industrial or commercial uses. Moreover, while the term “industrial use” is not defined in King County's Shoreline Code, County Shoreline Policies do indicate that “industrial development (treatment together with ports) ... pertains to the **design and fabrication of products.**” KCSMP policies at p. 27. This description would not readily incorporate the type of use associated with a resource mining operation. The determination that industrial uses do not include resource mining operations is consistent with the view set forth in State shoreline guidelines, which likewise consider mining uses separate from their restrictions on industry uses. See WAC 173-26-240(f)(industry) and –240(h)(mining).
5. King County's Shoreline Master Program also prohibits Commercial uses within the conservancy environment. KCC 25.24.070.
6. While barge-loading facilities that are associated with a commercial operation can be characterized as commercial uses, Glacier's dock barge facility is accessory to a resource mining use, and is not therefore properly considered a commercial use. As noted above, County shoreline codes and policies regulate resource uses such as mining, agriculture, forestry and fishing separate from their regulation of general commercial uses – suggesting that the uses are distinct. Moreover, while no definition of “commercial” is provided in the County's Shoreline Code, County Shoreline Policies do indicate that “commercial development pertains generally to the use or construction of facilities for the transaction and sale of goods and services.” KCSMP policies at p. 27. This description would not readily incorporate the type of use associated with a resource mining operation. The determination that commercial

uses do not include resource mining operations is also consistent with the view set forth in State Shoreline guidelines, which likewise consider mining uses separate from their restrictions on commercial uses. See WAC 173-26-240(d)(commercial development) and –240(h)(mining).

7. King County’s Shoreline Master Program prohibits “excavation” below the ordinary high water mark except where allowed by urban environment conditions set forth in KCC 25.16.190. See KCC 25.24.140. Shoreline Code restrictions on excavation do not, however, impose limitations on resource mining uses. When considered in the context of the County Shoreline Code and Shoreline Master Plan Policies, it is apparent that references to “Excavation” in King County Code Chapter 25.24 were not intended to govern either mining operations or appurtenant structures related thereto.
8. The fact that resource mining operations are not regulated under the County’s excavation provisions is apparent from considering the overall context in which such provisions appear as part of the County’s Shoreline Master Program. If excavation were read to generally include mining, the resource use would not be allowed in any of the shoreline environments. As with each of the shoreline environment categories, King County Code 25.24.140 allows excavation in the conservancy environment subject to, among other restrictions, the limitations specified for the urban environment. In turn, the urban environment prohibits excavation “as an independent activity,” requiring that excavation instead occur only “as part of an approved overall development plan.” KCC 25.16.190. Such an outright prohibition on mining is clearly not intended by the County’s Shoreline Master Program. Shoreline Policies clearly note that the need for land for sand and gravel operations is “extremely critical.”

Many of the most valuable deposits of sand and gravel are located on the marine shoreline and in or near the beds of rivers. The conflicts between economic interest and environmental concern in these situations is obvious, but with good management of both the shoreline resource and the mineral resource those conflicts can be addressed and resolved without harm to either. These policies do not attempt to disallow utilization of the mineral resource. Rather, their intent is to protect the shoreline resource.

General policies: (1) Mining in unique and fragile areas should not be allowed. (2) Consumptive and extractive industries should allow the natural shoreline systems to function with a minimum of disruption during their operations and should return the site to as near natural a state as possible upon their completion. (3) Mining in or under the waters of the shorelines of the state in King County should be discouraged.

These shoreline mining policies, which evidence an intent to allow for some shoreline mining, are likewise reflected in Conservancy Environment policies which specify that “[c]ommerical and industrial uses other than commercial forestry, agriculture, fisheries and mining should be discouraged.”

9. In addition to the fact that an interpretation of the term “excavation” to generally include “mining” would create conflicts with County shoreline policies, the context in which these use provisions appear in code and policies reveals an intent to treat mining as distinct from excavation. Resource uses are explicitly referred to in County Shoreline policies as Agriculture use, Aquatic Resource Practices, Mining, and Forest Management Practices. See e.g. KCC 25.24.040, .050 and .060. Where the County intended to regulate the overall resource use category, it certainly knew full well how to do so explicitly. Indeed, where County shoreline codes purport to regulate resource use categories such as Agriculture, Aquatic Resource Practices and Forest Practices, they specifically use these terms. The code is silent, however, on Mining.
10. Even if Shoreline Code provisions did intend to include mine-related quarry activities within the scope of its “excavation” provision, the barge loading facility at issue in this matter would still not be prohibited by the excavation limitations in KCC 25.24.140. While Glacier’s proposed dock-loading facility is plainly accessory to a gravel excavation operation, no actual excavation will occur within the shoreline. The Shoreline Code’s reference to excavation is, at best, a subset of an overall mining use. The limitation on excavation does not purport to regulate those structures and uses that are associated with excavation but do not themselves constitute excavation of gravel - such as the dock at issue. This is apparent, not only from the code’s reference to only “excavation” as opposed to “mining,” but also from the fact that the restrictions on excavation activities within the shoreline code are all directed at the impacts of actual earth movement. See e.g. KCC 25.16.190.
11. Because Glacier’s proposed conveyor and dock structure improvements and uses are not classified uses that are either expressly allowed or prohibited under the County’s Shoreline Code, as indicated by the County’s previous denial of a shoreline substantial development permit exemption, the project must be reviewed under shoreline conditional use permit standards.
12. The General Requirements section of King County’s conservancy environment indicates that “[n]onwater related, water related and residential development shall not be permitted waterward of the ordinary high water mark.” KCC 25.24.030(A). By virtue of this restriction, it is clear that only uses that are “water dependent” may locate below the OHWM.<sup>2</sup>

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<sup>2</sup> County code includes all uses in the categories water dependent, water related or nonwater related. County shoreline codes define “nonwater related use” to mean “a use which is neither water dependent nor water related.” KCC 25.08.320. Therefore, uses that are neither water related nor nonwater related must, by definition be water dependent.

13. Shoreline Hearings Board cases have occasionally considered docks and barge loading facilities as “water dependent” uses. See Department of Fisheries v. Mason County, SHB No. 91-33, 1992 WL 172986 (June 17, 1992)(“clearly all activities related to actual barge loading are water dependent: the dock, the ramp, the loader and the asphalt pavement area.”); Janos v. Sound Transit, SHB No. 00-015, 2000 WL 33100038 (December 29, 2000). In at least one instance, the Board has found that such uses are not “water dependent.” See Ecology v. Hama Hama, SHB No. 115, 1976 WL 38785 (July 2, 1976)(pier, conveyor and barge loading associated with quarry operation is “[a]t the most, arguably water related.”). These cases do little to further the analysis here. In these cases, the Board was not considering water dependency as defined by King County’s shoreline code. The critical issue presented by this application is whether the gravel mine operation served by the proposed dock must likewise be “water dependent” in order for the dock to qualify as a water dependent use under County shoreline codes. KCC 25.08.590 defines “water dependent” to mean “a principal use which can only exist where the landwater interface provides biological or physical conditions necessary for the use.” (Emphasis added).
14. The Department construes the shoreline code allowance of only water dependent uses below the ordinary high water mark to mean that the principal use for which proposed shoreline development is intended must depend on a “landwater interface.” This conclusion is based upon the fact that the code defines water dependent use to mean “a principal use” that depends on a waterward location. KCC 25.08.590. Explicit reference to a “principal use” within the definition of “water dependent use” cannot be disregarded.<sup>3</sup> These words convey the clear sense that only certain uses that are reliant on a land-water location are “water dependent.” More specifically, in context, it is clear that the term “principal use” is intended to contrast with those uses that are accessory to the primary use on site. It is the water dependency of the principal use, and not the accessory use, that is determinative. The principal use in this case is the gravel mine operation.
15. While it is true that the shoreline code is focused on development occurring within the 200 foot shoreline jurisdiction, this reality is in no sense inconsistent with the Department’s view that the principal upland development for which shoreline development is proposed must be considered in determining whether the shoreline use is allowed. It is only development proposed in the shoreline that is actually regulated by the water dependent requirement in KCC 25.24.030(A). The fact that water dependency provisions in the conservancy zone may look to the water dependency of upland primary uses is entirely consistent with the manner in which dock facilities are regulated elsewhere in the County’s Shoreline Code. The regulation of commercial or industrial piers and launch facilities within the urban and rural environment regulations plainly looks to the primary use served to determine

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<sup>3</sup> Where the County Council did not intend to restrict water dependency to “a principal use,” it knew full well how to do so. Elsewhere in County Code, the term “water dependent use” is defined without additional reference to “a principal use.” See KCC 21A.06.1385.

whether the accessory dock structure is or is not allowed. See KCC 25.16.070, .170 (urban environment allows such facilities only where they “will serve a water dependent or water related use.”); KCC 25.20.070, .120 (rural environment allows such facilities only where they “will serve a water dependent use”).<sup>4</sup>

16. The gravel operation to be served by the proposed accessory dock facility is not water dependent. While ready access to an independently operated barge loading facility would enhance the ability of this project to supply sand gravel material, gravel mining is not the sort of use that can only exist on the water. This is apparent from the fact that many quarry operations in King County – including this one – have existed and have supplied sand and gravel material outside of a shoreline location.
17. The principal gravel mine use proposed by Glacier is “water related” not “water dependent.” KCC 25.08.600 defines “water related use” in relevant part to mean “a principal use that is not intrinsically dependent on a location abutting the ordinary high water mark but which: ... [g]ains a cost savings or revenue differentiating advantage, which is not associated with rents or costs, from being located within the shorelines of the state that could not be obtained at an upland location.” KCC 25.08.600. Here, the availability of a waterward shipping facility would allow for a more profitable operation given its ability to export an expanded volume of material without ferry transportation limitations and costs. While these economic benefits support the water-related nature of the operation, it cannot properly be said that the quarry mine operation is water dependent. See Groenig v. Yakima, SHB Nos. 92-30/31, 1993 WL 837317 (November 9, 1993) (“gravel mining does not ordinarily need or depend on a shoreline location”); see also Ecology v. Hama Hama, SHB No. 115, 1976 WL 38785 (July 2, 1976). Water related uses are prohibited below the ordinary high water mark of the conservancy environment. Approval of Glacier’s proposed barge-loading facility would therefore violate this shoreline master program restriction.
18. In assessing whether issuance of a shoreline conditional use permit is appropriate, the director must determine that the proposed development is “compatible with uses which are permitted within the master program environment in which development is proposed.” KCC 25.32.050(A)(1). While the conservancy environment provisions of King County’s Shoreline Master Program do not generally discourage mining uses within the 200 foot shoreline jurisdiction, the code precludes those aspects of a mining operation that would occur waterward of the ordinary high water mark. As noted above, such uses are allowed only when they are water dependent. For reasons discussed above, Glacier’s proposed use is not compatible with this general limitation on waterward conservancy environment uses.
19. County shoreline conditional use permit criteria also require the applicant to demonstrate that the use will cause no unreasonable adverse affects on the shoreline

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<sup>4</sup> Commercial and industrial docks are prohibited in the conservancy environment. KCC 25.24.070, .120.

or surrounding properties and that the use will not interfere with public use of surface waters. KCC 25.32.050(A)(2) and (3). Significant adverse water, land, fish, noise and other environmental impacts of Glacier's barge loading facility have been extensively reviewed in the County's EIS and associated Addendum. Glacier has agreed to implement each of the mitigation measures suggested by DDES to address adverse project impacts. These measures include, but are not limited to, replacement of the current creosote dock structure with a more environmentally friendly concrete/steel facility that uses fewer pilings, has a net reduction in square footage, less shade impact and a revised loading area location outside of existing eelgrass beds. While the wording of the CUP test ("unreasonable adverse effects") is not identical to the SEPA threshold ("significant adverse environmental impacts"), the County construes these thresholds to be substantially the same. No unreasonable adverse affects on the shoreline or on surrounding properties are therefore likely to result from the proposed barge facility improvements and operations, and no interference with public use of the surface waters would be expected as a consequence of this proposal.

20. Finally, conditional use permit criteria specify that development of the site not be contrary to the policies of the master program. KCC 25.32.050(A)(4). Here, the proposed gravel mine barge facility would be located within the second most restrictive shoreline designation area: the conservancy environment. The purpose of the Conservancy Shoreline Environment, as stated within KCC 25.24.010, is to maintain existing character. The Conservancy Shoreline designation is intended to protect, conserve, and manage existing natural resources and valuable historic cultural areas. Id. The preferred uses are those non-consumptive of the physical and biological resources of the area. Id. King County Shoreline Master Program Policies likewise indicate:

The Conservancy Environment consists of a (sic) shoreline areas which are primarily free from intensive development. It is the most suitable development for shoreline areas of high scenic or historical values, for areas unsuitable for development due to biophysical limitations and for commercial forest lands.

Conservancy areas are intended to maintain their existing character. This designation is designed to protect, conserve, and manage existing natural resources and valuable historic and cultural areas. The preferred uses are those which are non-consumptive of the physical and biological resources of the area.

KCSMP Policies at p. 20. These provisions must be read in conjunction with those shoreline policies that pertain to mining. As noted above, County Shoreline Policies affirm the importance of nature of sand and gravel operations.

Many of the most valuable deposits of sand and gravel are located on the marine shoreline and in or near the beds of rivers. The conflicts between economic interest and environmental concern in these situations is obvious, but with good management of both the shoreline resource and the mineral resource those conflicts can be addressed and

resolved without harm to either. These policies do not attempt to disallow utilization of the mineral resource. Rather, their intent is to protect the shoreline resource.

General policies: (1) Mining in unique and fragile areas should not be allowed. (2) Consumptive and extractive industries should allow the natural shoreline systems to function with a minimum of disruption during their operations and should return the site to as near natural a state as possible upon their completion. (3) Mining in or under the waters of the shorelines of the state in King County should be discouraged.

**Response:** Taken as a whole, these provisions affirm the need to balance competing need for sand and gravel with the protection of especially sensitive shoreline features, such as those of the designated conservancy environment. Specifically with respect to those mining activities proposed in and above the water (as opposed to those mining activities that are merely within the 200 foot landward shoreline jurisdiction) the balance struck by these policies tips decidedly against allowing the use. As the prior discussion of shoreline codes prior indicates, special protections apply to over-water uses in the conservancy environment. Unless such activities are water dependent, they are not allowed. This is even the case even where, as here, best management practices are implemented and appropriate mitigation measures are implemented. Far from maintaining the existing character of the affected Maury Island shoreline, Glacier's proposed barge loading facility would provide a level of activity that would rival even an intensive industrial use. Allowing such a use in the protective conservancy environment would be contrary to the King County Shoreline Master Program policies.

21. The following conservancy environment policies are also relevant to Glacier's proposal. The Glacier proposal, as mitigated, would not contravene these policies.

- New developments should be restricted to those which are compatible with the natural and biophysical limitations of the land and water. (KCSMP Conservancy Policy #1)

**Response:** While significant improvements are being proposed to the dock and conveyor, this is not properly considered a new development. The dock and conveyor were constructed at its current location over 25 years ago. Revisions to the existing facility sought by Glacier will reduce the natural and biophysical impacts of this facility.

- Commercial and industrial developments, other than commercial forestry, agriculture, fisheries and mining should be discouraged. (KCSMP Conservancy Policy #2)

**Response:** This policy suggests that mining in the conservancy environment is not necessarily a discouraged use. Approval of Glacier's proposal would therefore not be contrary to this policy.

- Development which would be of a hazard to public health or safety or which would materially interfere with the natural process should not be allowed. (KCSMP Conservancy Policy #4)
- Developments should be regulated so as to minimize the following: erosion or sedimentation, adverse impact on aquatic habitats and substantial degradation of the existing character of the Conservancy Environment. (KCSMP Conservancy Policy #9)

**Response:** With respect to both conservancy environment policies four and nine, as noted above, the project will incorporate appropriate mitigation measures to address probably significant project impacts. No hazard to public safety or material interference with the natural process is anticipated.

- King County should encourage sustained yield management of natural resources within the Conservancy environment. (KCSMP Conservancy Policy #10)

**Response:** No actual mining or consumption of natural resources is proposed within the shoreline conservancy environment. Approval of the Glacier proposal would not be contrary to this policy.

### **Shoreline Substantial Development Permit**

22. A substantial development permit shall be granted only when the development proposed is consistent with: (a) The policies and procedures of the act; (b) The provisions of this regulation; and (c) The applicable master program adopted or approved for the area. WAC 173-27-150.
23. The Department incorporates by reference its foregoing analysis of this project's consistency with King County Master Program requirements. The proposed barge loading facility fails to meet the conservancy environment general requirement restricting non-water dependent uses from locating water-ward of the ordinary high water mark discussed above, and fails to satisfy restrictions against nonconforming use expansion discussed below.
24. RCW 90.58.020 enumerates relevant policies of the Shoreline Management Act. In particular this section specifies that:

the public's opportunity to enjoy the physical and aesthetic qualities of natural shorelines of the state shall be preserved to the greatest extent feasible consistent with the overall best interest of the state and the people generally. To this end uses shall be preferred which are consistent with control of pollution and prevention of damage to the natural environment, or are unique to or dependent upon use of the state's shoreline.



RCW 90.58.020 Shoreline Management Act further indicates that:

permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water.

**Response:** As discussed above, the project has been designed and mitigated to sufficiently control resulting pollution and prevent damage to the natural environment. Policy direction regarding the Act's preference for uses that are unique or dependent upon the use of the shoreline is reflected in the Department's interpretation of water dependency requirements for conservancy environment uses as discussed above. For reasons detailed above, this proposal is not properly considered water dependent.

### **Non-Conforming Use Analysis**

25. The Department's determination that the proposed dock violates conservancy environment general requirements and policies prohibiting water related and non-water related uses below the ordinary high water mark does not necessarily preclude issuance of shoreline permits for the proposed facility. Existing uses and development that no longer conform to current shoreline standards may continue, with some modification, pursuant to the Shoreline Code's nonconforming use provisions. The Department has therefore additionally evaluated whether the proposed development and use is allowed on the basis of its grandfathered, nonconforming status.
26. King County Code section 25.32.060 indicates that the modification to a nonconforming use or development may be approved under specified criteria.
- A. Applications for substantial development or building permits to modify a nonconforming use or development may be approved only if:
    - 1. The modifications will make the use or development less nonconforming; or
    - 2. The modifications will not make the use more nonconforming.
  - B. A use or development, not conforming to existing regulations, which is destroyed, deteriorated or damaged by more than fifty percent of its fair market value at present or at the time of its destruction, by fire, explosion or other casualty or act of God, may be reconstructed only insofar as it is consistent with existing regulations.

- C. The review of applications for the modification of a nonconforming use shall be subject to the guidelines enumerated in K.C.C. 21A.32 (General Provisions-Nonconformance, Temporary Uses, and Reuse of Facilities).
27. Non-conforming uses are defined in the County's Shoreline Code to mean "those uses or developments that have been lawfully established or constructed prior to November 22, 1976, which no longer conform to the applicable regulations of the master program." KCC 25.08.310. Implicit in this definition is the notion that the once-established use remains in existence. Here, there has been an extensive period of disuse of the dock facility. Analogous case law in the zoning context suggests, however, that the test for evaluating whether a resource use such a mining remains in existence involves more than simply tallying the number the period of disuse. Under the "diminishing asset doctrine" fluctuations in demand or cyclical industry practice may justify periods of dormancy. City of University Place v. McGuire, 144 Wn.2d 640 (2001). The test applied in such circumstances is whether the intent to maintain the use has been abandoned. Here, the applicant has continually operated the mine site (albeit on a much smaller scale than currently proposed), has consistently maintained its permits for the entire site and has persistently sought to retain its dock lease with DNR. While the applicant has not used the dock for over twenty years and has allowed the conveyor and barge loading facility to lapse into substantial disrepair, the facts associated with this project on balance do not appear to demonstrate an intent by the applicant or its predecessor to abandon their nonconforming use.
28. Glacier's dock and conveyor facility are thus properly considered nonconforming insofar as they were constructed in 1968 and do not now comply with conservancy environment requirements that only water dependent uses be located waterward of the ordinary high water mark.
29. Proposed dock and conveyor improvements and operations proposed by Glacier would, however, improperly result in a use or development that is more nonconforming. The greater nonconformance in this case results from the extraordinary increase in the scale of the mine operation that would utilize the dock. The exiting grading permit for this site contemplates removal of an average of 15,000 tons of material per year in order to serve local markets on Vashon Island. No barge-loading activity has occurred on this site for more than twenty years. The proposed annual excavation of 7.5 million tons of material exceeds the site's most productive historical operation volumes by nearly six million tons per year. While some intensification of a nonconforming use is allowed to occur under common law nonconforming use law, the ability to expand such operations is not without limits. Where, as here, the scale of operations is increased so dramatically that it is effectively a different use, it is not protected by the non-conforming status.
30. In Meridian Minerals, the court considered whether an existing, non-conforming gravel operation was entitled to expand operations by less than four times the average annual amount of gravel processed in its existing operation (12,500 cubic yards to

42,500 cubic yards). While acknowledging that the applicant was not seeking to transform the general type of activity for which the land was used, the Court affirmed the decision to treat the proposed increase as an unlawful expansion. “When an increase in volume or intensity is of such a magnitude as to effect a fundamental change in a non-conforming use, courts may find the change to be proscribed by ordinance. The test is whether the intensified use is ‘*different in kind*’ from the nonconforming use in existence when the zoning code was adopted.” Meridian Minerals v. King County, 61 Wn.App. 195, 209 (1991). Here, the dramatic increase in sand and gravel volumes involved -- over five hundred times the volume involved over the past decade and approximately six times more annual volume than has ever occurred on this site -- is different in kind from the existing nonconforming use. Such a scale of use would improperly expand the nonconformance and is therefore not allowed.

31. The Department does not view the greater nonconformance in this case as resulting from the fact that the dock would extend further waterward than its existing footprint. The longer dock results from Glacier’s effort to avoid impacts to eelgrass associated with prop wash from barge loading operations. While the dock is longer, its overall square footage would be reduced from the existing 8940 square feet to the proposed 7796 square feet. Apart from a net reduction in shade impacts to eelgrass beds, the revised dock would also lessen impacts of the existing structure through a replacement of existing creosote pilings and dolphins with steel structures. The number of piles would similarly be reduced from 228 to approximately 56. The conveyor system would modify its existing open tray configuration to incorporate an enclosed tube that would eliminate spillage and wind blown sand within the shoreline. In terms of net impact and net area affected, the dimensional modifications proposed by Glacier do not constitute an expansion.
32. Applicable nonconforming use requirements additionally specify that a nonconforming use which has deteriorated “more than fifty percent of its fair market value at present or at the time of its destruction ... may be reconstructed only insofar as it is consistent with existing regulations.” KCC 25.32.060(B). Both the applicant and community have presented information relating to this requirement. Upon careful examination of information submitted, the Department has determined the ratio between the actual fair market value of the barge loading facility and its extent of deterioration is unclear and inconclusive. The applicant has therefore not satisfied its burden of demonstrating that the proposed structure meets this nonconforming use requirement.
33. Finally, KCC 25.32.060(C) indicates that applications for “modification of a nonconforming use are “subject to the guidelines enumerated in KCC 21A.32.” The guidelines set forth in that chapter do not purport to impose further limitations on “extractive operations.” See KCC 21A.32.020(A) (“With exception of extractive operations identified in KCC 21A.22, all nonconformances shall be subject to the provisions of this chapter.”). These provisions suggest that mining operations regulated under KCC Chapter 21A.22 are instead subject to non-conforming use

limitations of that chapter. The non-conforming use limitations in KCC 21A.22 generally require that such uses be brought into conformance with County Noise standards, dust, traffic and other operating standards set forth in KCC 21A.22.070. See KCC 21A.22.040. These operating standard limitations do not preclude proposed dock and conveyor uses at issue in this application.

**ACTION:**

DENY Shoreline Conditional Use Permit: DDES File No. L02SH012

DENY Shoreline Substantial Development Permit: DDES File No. L02SH013

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**Stephanie Warden, Director**  
**King County DDES**

Transmittal Date: March 16, 2004

**NOTE:** This shoreline substantial development decision may be appealed to the State Shoreline Hearings Board. Information on appeal procedures may be obtained from the Shoreline Hearings Board at (360) 459-6327 or the Washington State Department of Ecology Shoreline Appeals Coordinator at (360) 407-6528. Requests for Hearings Board review must be received by the Shoreline Hearings Board within twenty-one (21) days of the "date of filing." The "date of filing" is the date the local decision on the shoreline substantial development permit is received by the Department of Ecology.

Pursuant to WAC 173-27-200, this County's conditional use permit decision shall be submitted to the Department of Ecology. The Department of Ecology will then render and transmit to King County and the applicant its final decision within thirty days following the County's submittal. The County will provide notification of the Department of Ecology's final decision to those persons requesting such notice. Information on appeal procedures may be obtained from the Shoreline Hearings Board at (360) 459-6327 or the Washington State Department of Ecology Shoreline Appeals Coordinator at (360) 407-6528.