

Executive Summary

Introduction

This document analyzes the potential environmental and economic effects of a proposal to establish a seasonal closure area around a newly emerging walrus haulout on Hagemeister Island in northern Bristol Bay, Alaska. The proposed action would preclude Federally-permitted vessel operators from engaging in fishing, as defined in the Magnuson-Steven Act, or transiting the designated area during the closure period. Previous Council actions established seasonal closure areas around other walrus haulouts in northern Bristol Bay, including closures around the Walrus Islands (Round Island and the Twins) and Cape Peirce. The proposed action would designate a similar closure area around the haulout on Hagemeister Island. The Council is scheduled to make an initial review of the draft EA/RIR/IRFA for the proposed action at the December 2010 meeting.

Purpose and Need

The purpose of the proposed action is to establish a protection zone around a walrus haulout on Hagemeister Island, Alaska. Similar protection zones exist around other haulouts in northern Bristol Bay. The rationale for this action is concern over the impacts that fishery-related activities may have on walrus using the Hagemeister Island haulout. Walrus use the haulouts in northern Bristol Bay during spring, summer, and fall. The existing haulout protection closures apply from April 1 through September 30, and the proposed closure would also occur during this time period. Walrus are sensitive to human disturbance, and may flee haulouts in response to the sight, sound, or odor of human activity.

The sectors directly affected by the proposed action are Federally-permitted vessel operators. The action would preclude these operators from entering the protection zone around the Hagemeister Island haulout during the closure period. The scope of this action is limited to operators who hold an FFP. The action would not preclude other operators from participating in fishery-related activities or transiting the designated area.

Alternatives

In order to address the problem described in the purpose and need statement, the Council identified two alternatives for analysis. **Alternative 1**, the requisite No Action alternative, would not establish any additional protection areas for walrus. **Alternative 2** would establish a seasonal closure area around the Hagemeister Island haulout that precludes Federally-permitted vessels from operating within a prescribed distance from the haulout. There are 4 options in Alternative 2 for determining the spatial extent of the closure.

Alternative 1 No action.

Alternative 2 Establish a seasonal closure area from April 1 to September 30 around the Hagemeister Island walrus haulout.

Option 1 Close waters 3 nm to 6 nm from the haulout.

Option 2 Close waters 3 nm to 9 nm from the haulout.

Option 3 Close waters 3 nm to 12 nm from the haulout.

Option 4 Close waters 3nm to 12 nm with a vessel transit corridor through Hagemeister Strait.

If an area closure is proposed, the interactions of such a closure with other closures in the area should be considered. For example, a 9 nm or 12 nm closure (Alternative 2, Option 2 or Option 3) would overlap slightly with other walrus protection zones, effectively closing transit by vessels with FFPs to all areas around Hagemeister Island, unless a vessel can pass north of The Twins and Round Island closures through State waters (see Figure E-1). Option 4 to Alternative 2 was suggested by the USFWS and is illustrated in Figure E-1. This would close an area from 3 to 12 nm from the Hagemeister Island haulout (solid blue area on Figure E-1), except where it intersects with the Cape Peirce closure, which leaves a vessel transit corridor open through Hagemeister Strait. Additional USFWS suggestions on an appropriate closed area are described in their letter to the Council dated October 13, 2009 (Appendix A).

Background

Yellowfin sole is the primary groundfish fishery that is prosecuted in the Northern Bristol Bay Trawl Area (NBBTA). When enroute to or from the NBBTA fishing grounds, vessels that participate in the yellowfin sole fishery are restricted to using areas outside the walrus protection zones around Cape Peirce, The Twins, and Round Island. Vessels that participate in this fishery are catcher vessels and catcher processors, and occasionally a domestic processing vessel may be present in the area to receive catcher vessel catch. These fishing vessels arrive on the NBBTA fishing grounds in May and fish until approximately early to mid-June. Transit routes to and from these fishing grounds are across Bristol Bay and not typically through Hagemeister Strait unless weather conditions require vessels to seek shelter. Occasionally, fishing vessels may shelter on the west side of Hagemeister Island or in Hagemeister Strait (Tim Sands, ADF&G, pers. comm.). However, during the yellowfin sole fishery, vessels harvest groundfish within the NBBTA and deliver catches to processor vessels or to refrigerated freighters that anchor in this area.

Access to and from the NBBTA fishing grounds is limited by the existing walrus protection areas, and vessels with a Federal Fisheries Permit (FFP) may not transit the 3 to 12 nm closed areas during the yellowfin sole fishing season. As a result, vessels must depart the fishing grounds and move south and west of the closures and through Hagemeister Strait to make offloads. Offloads are primarily made in to freighters anchored in the Hagemeister roadstead on the north side of the island, and in Togiak Bay. Industry reports that the east side of Hagemeister Island is too shallow for safe transit and is not used.

The Togiak herring fishery is large, with thousands of tons of product offloaded annually during the same season as the yellowfin sole fishery is prosecuted. Most herring is offloaded at the Port of Togiak, but the Hagemeister roadstead is also used for herring offloads during the same time that the yellowfin sole fishery is prosecuted. Thus, yellowfin sole vessels and domestic herring tender vessels all may offload during the same periods of time in this part of northern Bristol Bay.

Yellowfin sole catches

Yellowfin sole fishing effort in the NBBTA varies from year to year, and many factors influence whether the fleet will pursue the yellowfin sole fishery in the NBBTA. If there are opportunities in May and June for good yellowfin sole fishing in other areas that involve less travel time, but still yield high yellowfin sole catch rates and low halibut bycatch, these areas may be more desirable to the fleet. In addition, market conditions for yellowfin sole vary from year to year and may influence whether the fleet chooses to fish for yellowfin sole in May and early June, or turn to different targets (for example, Pacific cod or other flatfish). The NBBTA fishery is generally considered by the fleet to be a good area for catching yellowfin sole with very low halibut bycatch. Yellowfin sole catches from 2001 through 2010 in the NBBTA and BSAI are reported in Table E-1. As much as 14% of the BSAI catch has been harvested in the NBBTA in recent years.

Table E-1 Yellowfin sole catch (mt) in the Northern Bristol Bay Trawl Area (NBBTA) compared to catch in the BSAI as a whole

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
NBBTA catch	**	**	0	**	2,906	9,345	16,946	10,694	2,266	11,398
BSAI catch	63,578	74,986	79,815	75,510	94,385	99,160	120,968	148,894	107,513	110,695
% catch in NBBTA	**	**	0.0%	**	3.1%	9.4%	14.0%	7.2%	2.1%	10.3%

NBBTA catch includes observed catch only. The yellowfin sole catcher processor target fishery was 92%-95% observed from 2004-2007 (NMFS, 2008). In 2008 through 2010, the majority of the fishery was prosecuted by Amendment 80 vessels, which are required to have 200% observer coverage.

Source: AKFIN Observer database (NBBTA catch); AKFIN Catch Accounting database (BSAI catch).

Hagemeister Island walrus haulout

In recent years, a newly emerging haulout located on the southwest coast of Hagemeister Island (58° 34.800' 161° 04.500') has been used consistently by walrus. Hagemeister Island is part of the Togiak National Wildlife Refuge, and aerial surveys of walrus on Hagemeister Island have been conducted since 2005 (Jonathan Snyder, USFWS, pers. comm.). The haulout is identified in Figure E-1.

The haulout is used during summer through fall months. More than 2,900 walrus were counted at the haulout during a one-day period in August 2008. Aerial surveys conducted by staff at the Togiak National Wildlife Refuge have been conducted since 2005. The USFWS does not have telemetry data from the haulout to answer questions regarding animal movement and behavior patterns near the haulout. Data collected from other haulouts in the region (Round Island and Cape Pierce) suggest that long foraging excursions from the haulouts to offshore feeding locations is the normal pattern (Jay et al. 2001; Jay and Hills 2005; Joel Garlich-Miller, USFWS, pers. comm.). Telemetry studies have also shown that animals often use more than one haulout location during the course of a season, and this might hold true for the Hagemeister haulout as well (Joel Garlich-Miller, USFWS, pers. comm.). As noted earlier, the USFWS has expressed concern over disturbances caused by vessel traffic, aircraft, and other human activities near the haulout (see Appendix A for USFWS letter to the Council).

Impacts of the Alternatives

Marine mammals

Under Alternative 1, Federally-permitted vessels would not be restricted from approaching the Hagemeister Island walrus haulout. The extent to which walrus may be disturbed by this vessel activity is uncertain. In general, sounds produced by fishery-related activities may impact walrus in two ways. Airborne sounds may influence the behavior of animals hauled out on beaches. Fewer walrus may choose to haul out, and those that do may remain onshore for shorter periods of time. Walrus may also encounter intense underwater sounds produced by fishing activity as they approach haulout areas from the sea. They may choose to avoid these areas and swim to haulouts elsewhere or spend long, perhaps energetically expensive, periods at sea. If vessel activity increases in the future, disturbance could result in a redistribution of walrus to other haulout sites within northern Bristol Bay or elsewhere.

Alternative 2 would establish a seasonal closure area from April 1 through September 30 around the Hagemeister Island walrus haulout. The Council is considering 4 options for a closure zone, including 6 nm, 9nm, and 12 nm buffers, and an irregularly shaped 3-12 nm buffer that provides a vessel transit corridor through Hagemeister Strait. Establishing a buffer zone around the haulout has the potential to minimize disturbance by Federally-permitted vessels to walrus using the haulout. However, it is not possible to quantify the differences among the 4 options in terms of their potential for reducing vessel

disturbance to walrus. When the Council established 12 nm closures around Round Island, The Twins, and Cape Peirce, one rationale for selecting a 12-mile buffer was that it was consistent with the level of protection provided for walrus haulout sites in Russia. The analysis supporting BSAI Amendments 13/17 also noted that increasing the distance between fishing vessels and walrus haulout sites was predicted to reduce through attenuation the amount of vessel-related waterborne sound reaching these locations.

The seasonal closure proposed for the Hagemeister haulout is consistent with the Council's previous action to establish seasonal closures around Round Island, The Twins, and Cape Peirce, and corresponds to the period of peak walrus utilization.

Harvesters and processors

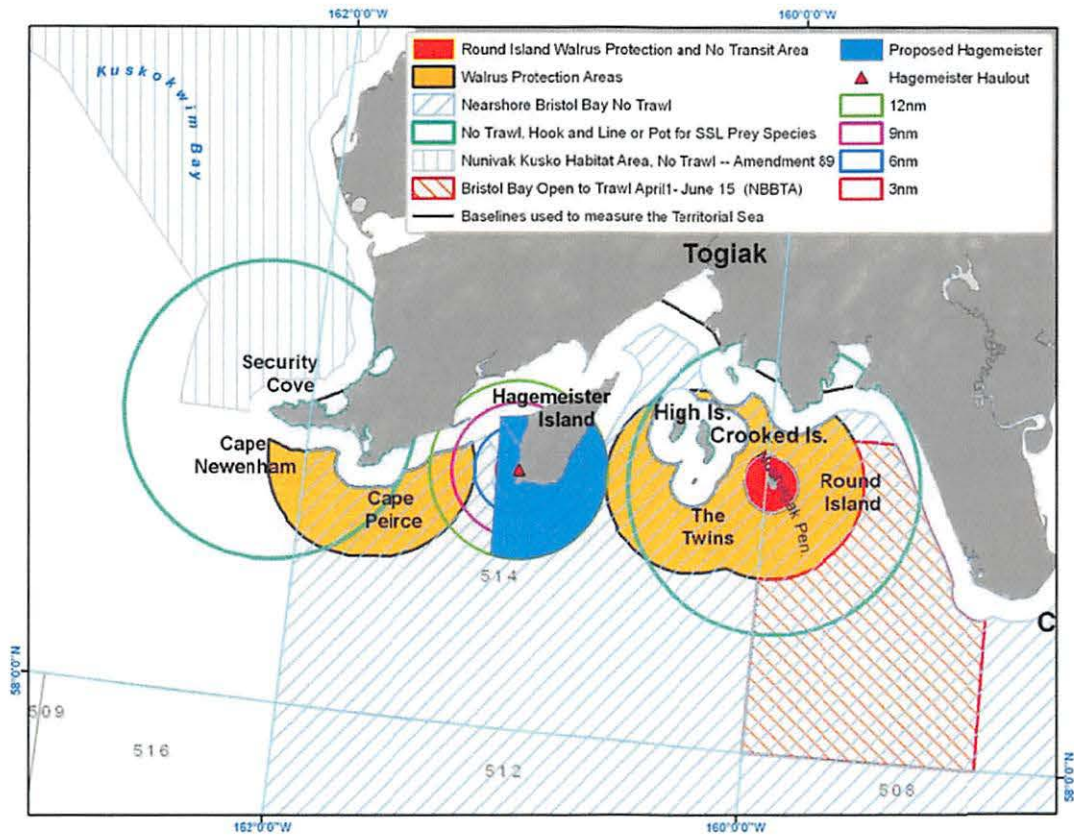
Under Alternative 1, there would be no additional restrictions on fishery-related activities around Hagemeister Island. If this alternative is selected, Federally-permitted vessels could continue to transit through Hagemeister Strait to access groundfish offload sites in the Hagemeister roadstead and in Togiak Bay, without any further restrictions. The fleet has indicated that accessing these sites is particularly important because alternative sites are more susceptible to weather impacts and difficult to use for offloading, or longer distances from the fishing grounds (see Section 3.2.2 for this discussion). The no action alternative is not expected to affect the amount of effort in the NBBTA yellowfin sole fishery, or the timing or duration of the fishery.

Under Alternative 2, vessels that wish to access groundfish offload sites in the Hagemeister roadstead or Togiak Bay would be precluded from transiting through the buffer zone around the Hagemeister haulout. Options 1, 2, and 3 to Alternative 2 would preclude Federally-permitted operators from transiting Hagemeister Strait, and would therefore make existing offload sites inaccessible. It is assumed that the 3 options under Alternative 2 that preclude vessels from accessing the offload sites would directly impact (i.e., reduce) participation in the yellowfin sole fishery, but the magnitude of this impact is unclear. The option that provides a vessel transit corridor through Hagemeister Strait would allow vessels to access groundfish offload sites, but imposes greater costs (e.g., fuel and travel time) on vessels transiting to these sites. Increased travel time to offload sites also imposes an opportunity cost on the fleet through lost fishing time.

Net benefits to the Nation

Under the status quo (Alternative 1), operators of Federally-permitted vessels would continue to have the potential to transit through Hagemeister Strait to offload sites in the Hagemeister roadstead and Togiak Bay without any further restrictions. This vessel activity has the potential to disturb walrus using the haulout on the southwest side of Hagemeister Island. Under the proposed action (Alternative 2), Federally-permitted operations could not enter the designated closure area around the Hagemeister Island walrus haulout. The extent of the closure area could range up to 12 nm from the haulout, depending on the option selected. Operators who do not hold any Federal permits could continue to access the area. The proposed action may reduce the potential for disturbance to walrus using the haulout. This could provide a long-term conservation benefit to the Pacific walrus population if significant disturbance to walrus using this site were to occur in the absence of this action. The long-term conservation of walrus would also benefit the subsistence economy of Alaska natives. In addition, much of the socioeconomic value of walrus may consist of non-consumptive use value, option value, and existence value. However, the proposed action also has the potential to increase costs (i.e., fuel, transit time) for vessels participating in the NBBTA yellowfin sole fishery.

Figure E-1 Map showing existing closure areas in northern Bristol Bay and options for a new closure area around the Hagemeister Island walrus haulout. Option 4 to Alternative 2 (USFWS proposed closure) is shown in solid blue.



MEMORANDUM

TO: Council, SSC and AP Members
FROM: Chris Oliver *Chris*
Executive Director
DATE: November 30, 2010
SUBJECT: Pacific Walrus in Bristol Bay

ESTIMATED TIME 8 HOURS ALL D-1 ITEMS
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ACTION REQUIRED

Initial review of an analysis of options to establish a closure area around a new Pacific walrus haulout on Hagemeister Island in northern Bristol Bay.

BACKGROUND

At the April 2009 meeting, the Council passed a motion based on a request from the U.S. Fish & Wildlife Service (USFWS) to describe the process for designating a walrus protection zone around a new, emerging walrus haulout on the southwest side of Hagemeister Island. The USFWS expressed concern over potential disturbance to walrus using this haulout from groundfish fishing activities in the northern Bristol Bay region. Hagemeister Island is part of the Togiak National Wildlife Refuge, which is administered by the USFWS.

The Council received a staff discussion paper in December 2009 that provided information on the new Hagemeister Island walrus haulout and options for designating a protection zone around this haulout. After considering the options outlined in the paper, and public comment, the Council requested that staff prepare an analysis of alternative closure areas around the Hagemeister Island haulout, and referred this issue to the Joint Protocol Committee. The Joint Protocol Committee reviewed the alternatives in October 2010, and noted that while the Board of Fisheries can regulate fishing activity in State waters, it cannot regulate vessel transit or other human activities in State waters. The Council noted that most disturbances to walrus are likely from activities not related to Council-managed fisheries, and requested that the USFWS engage in discussions with the Alaska Board of Fisheries and other entities in northern Bristol Bay that may be sources of disturbances to walrus in this area.

The Council is scheduled to make an initial review of the draft EA/RJR/IRFA at this meeting. The Executive Summary of the analysis is attached as Item D-1(c)(1).

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