Appendix B

Wild and Scenic River (WSR) and Areas of Critical Environmental Concern (ACEC) Justification

A. Wild and Scenic River Eligibility Matrix Ranking

SUMMARY

The three phases of a Wild and Scenic River (WSR) Study are the eligibility determination, classification analysis, and suitability assessment. In this report the Bureau of Land Management (BLM) evaluates the eligibility of 45 waterways within the Bay Resource Management Planning Area for designation as Wild and Scenic Rivers (WSRs). Forty two waterways have been determined to be ineligible and are dropped from further study. Three waterways have met the criteria for eligibility, and tentative classifications of wild, scenic, or recreational have been assigned.

BLM does not manage any of the rivers for the three eligible and tentatively classified waterways. All of the eligible waterways analyzed are lands that are State or Native Priority Selected, and long-term retention of the parcels in Federal ownership is unlikely. None of the three eligible and tentatively classified rivers are considered manageable waterways under BLM, and they are found to be unsuitable for inclusion in the National WSR System.

The purpose of this Eligibility/Suitability study is to provide an analysis for the basis of recommendations for the Bay Resource Management Plan/Environmental Impact Statement (RMP/EIS).

1. Introduction

Planning guidance for BLM suggests that WSR studies be completed for all waterways within the scope of a planning area. This study considers the following 45 waterways for inclusion in the WSR system:

Alagnak River, Alagnak tributary, Arolik River South Fork, Bear Creek, Ben Courtny Creek, Canyon Creek, Chekok Creek, Coffee Creek, Copenhagen Creek, Cranberry Creek, Cripple Creek, Dome Mountain Creek, Faro Creek, Goodnews River, Goodnews River Middle Fork, Goodnews River South Fork, Granite Creek, Graveyard Creek, Iliamna River, Indian River South, Jacksmith Creek, Kashanak Creek, King Salmon Creek, Klutuk Creek, Koggiling Creek, Kvichak River, Kvichak tributary, Levelock Creek, Lower Klutuk Creek, Mulchatna River tributary, Nanachuak tributary, Napotoli Creek, Nautilus Creek, Nushagak River tributary, Nushigak tributary, Ole Creek, Paul's Creek, Pile River, Portage Creek, Puyulik Creek, Squaw Creek, Tivyagak Creek, Upper Talarik Creek, Velvet Creek, and Yellow Creek.

After land conveyances are completed by around 2010, it is expected that the surface land ownership in the planning area will be approximately 5% BLM-managed public land.

This report is a record of the WSR study process associated with waterways within the Bay planning area. It is not meant to be an environmental impact analysis, but rather an examination of the river segments in relationship to the WSR eligibility/classification/suitability criteria. The environmental analysis is discussed in Chapter IV of the Draft RMP/EIS.

Land use controls on private land are a matter of state and local zoning. Although the Wild and Scenic Rivers Act of 1968 includes provisions encouraging protection of river values through state and Federal land use planning, these provisions are not binding on local governments.

The Federal government is responsible for ensuring that management of designated rivers meets the intent of the Act. In the absence of local or state river protection provisions, the Federal government could ensure compliance through acquisition of private lands or interest in lands.

The basic objective of WSR designation is to maintain the existing condition of a river. If a land use or development clearly threatens the outstandingly remarkable values (ORVs) that resulted in designation of the river, efforts would be made to remove the threat through such actions as local zoning, land exchanges, or purchases from willing sellers. Agricultural and livestock grazing activities occurring at the time of designation would generally not be affected.

2. Overview of the Three Phases of the WSR Study Process

The first phase of a WSR study is the eligibility determination, an analysis to see whether the river is eligible to be tentatively considered for WSR designation. To be eligible, the river must meet the criteria of being free-flowing and possessing one or more ORV.

The second phase of the study is the classification analysis, which determines whether the river should be tentatively classified as wild, scenic, or recreational if it were designated by Congress. This tentative BLM classification is based on the level of development present in the river corridor.

The third phase of the study, the suitability assessment, consists of comparing alternative ways of managing the river. The suitability of a river for designation depends on the managing agency's ability to resolve key issues such as public access, long-term protection of resources and traditional resource uses.

a) Phase One: The Eligibility Determination

The purpose of an eligibility study is to determine whether a river meets the minimum requirements for addition to the national system. According to the Wild and Scenic Rivers Act, eligible river segments must be free flowing and, with their immediate environment, possess one or more ORV, such as scenic, recreational, wildlife, fish habitat, cultural (potential), historic, and subsistence resource values. "Free flowing" is defined as "existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping or other modification of the waterway that would encourage future construction of such structures." (Free flowing should not be confused with naturally flowing, a state in which a river flows without any upstream manipulation except by nature). "Outstandingly remarkable values" are defined as natural and cultural resources that are either unique at a regional level or exemplary at the national level.

A determination that a river is eligible for designation does not lead immediately to a recommendation that it should be added to the system. The eligibility study simply determines whether the river should be carried into the classification and suitability phases of the study.

Tables B.1 and B.2 summarize descriptions and the comparative analysis of the scenic, recreational, wildlife, fish habitat, cultural (potential), historic, and subsistence resource values for the rivers within the

planning area. In the analysis, BLM compared resource values of the rivers under study to similar features on other rivers in the region and identified values that are unique or exemplary. To be "unique," a resource or combination of resources must be one of a kind within a region. To be "exemplary," a resource must be one of the better examples of that type of resource at a national level.

Table B.1. Summary Description of River Segments

River Segment	Miles (total)	Miles BLM	Comments
*Alagnak River	98.4	0.0	River not under BLM jurisdiction. Originating in Katmai National Preserve's Kukaklek Lake, has abundant wildlife, including brown bear, moose, beaver, river otter, bald eagle, and osprey. Visitors enjoy the fishing along this clear, braided river, as well as the striking changes in landscape, large undeveloped lakes, boreal forest, wet sedge tundra, shrubby islands, and Class I-III rapids. Much of the headwaters are currently a designated Wild component of the National Wild & Scenic River System, managed by NPS. Approximately 0.10 river miles cross through BLM-managed uplands.
Alagnak tributary	32.2	24.9	Moderate BLM jurisdiction. Common recreation resources found in the regional area.
Arolik River South Fork	36.9	13.5	The river has a high quality of several resource values. The upper river has moderate current, but the river is shallow throughout its length. Downstream from the lake the channel is braided for a short duration and a single channel is present. The lower 20 miles of the river has very few exposed banks and gravel bars for camping. The lower ten miles of Arolik is under tidal influence and the banks are comprised of tall grass. Campsites on State lands in the lower third of the river are very difficult to find. This makes the trip complicated and requires close coordination with your air charter service for pick up. Rafts with a rowing frame are recommended. Float Duration: 3-4 days from Arolik Lake to the mouth. Attributes: Seasonally excellent angling opportunities for salmon and Dolly Varden, Arctic grayling, and rainbow trout.
Bear Creek	46.2	20.6	Fisheries, scenic, and recreation resources are common compared to the region.
Ben Courtny Creek	33.2	7.4	Minimum BLM jurisdiction. Common fish habit and scenic resource values to the region.
Canyon Creek	17.7	0.0	Not under BLM jurisdiction. High quality resource values compared to the region.
Chekok Creek	14.8	2.0	Minimum BLM jurisdiction. Fisheries, scenic, and recreation resources are common to the region.
Coffee Creek	35.9	27.0	Most resource values are common to the region.
Copenhagen Creek	24.2	9.2	Moderate BLM jurisdiction. Most resource values are common to the region.
Cranberry Creek	36.0	0.0	Not under BLM jurisdiction.
Cripple Creek	27.6	24.5	Most resources are high quality compared to the region.
Dome Mountain Creek	11.5	5.9	Fisheries and recreational resource values are common to the region.
Faro Creek	13.4	11.0	Fisheries, subsistence, and wildlife resource values are common to the region.

River Segment	Miles (total)	Miles BLM	Comments
Goodnews River	15.1	0.0	Not under BLM jurisdiction. Unique fisheries and subsistence resource values in the regional area. A popular float trip of intermediate duration for the experienced or novice rafter. The upper river has a slow current; the current increases in the middle section, with no obstructions to navigate. Most of the shoreline vegetation is tundra with a few stands of cottonwood and willows. Tidal influence is noticeable 10 miles from the mouth in the multiple channels and sloughs. Watercraft: raft with a rowing frame is recommended. Float Duration: 5-6 days from Goodnews Lake to mouth. Attributes: Seasonally excellent angling opportunities for salmon and Dolly Varden, rainbow trout and grayling. Un-baited single-hook artificial lures in all flowing waters. Access: Aircraft charter services are available from Bethel or Dillingham. Land Mangers: State of Alaska, Togiak National Wildlife Refuge and private ownership.
Goodnews River Middle Fork	38.6	0.0	Not under BLM jurisdiction. Unique fisheries resource values compared to the regional area. The Middle Fork is the main tributary and parallels the mainstem of the Goodnews River for its entire length and joins near the mouth.
Goodnews River South Fork	33.3	9.3	Moderate BLM jurisdiction. High quality of several resource values compared to the region.
Granite Creek	4.6	0.0	Not under BLM jurisdiction. High quality of wildlife resource values compared to the region
Graveyard Creek	18.8	1.8	Minimum BLM jurisdiction. Fisheries, subsistence, and wildlife resource values are common/unknown in the region.
Iliamna River	32.1	0.0	Not under BLM jurisdiction. High quality of several resource values compared to the regional area. Large size Rainbow Trout and Arctic Char and exceptional brown bear viewing.
Indian River South Fork	13.8	0.0	Not under BLM jurisdiction. High to common resource values compared to the region.
Jacksmith Creek	23.5	20.5	Fish habitat common compared to the region.
Kashanak Creek	92.4	69.2	Fish habitat common compared to the region.
King Salmon Creek	28.7	12.4	Fish habitat common compared to the region.
Klutuk Creek	73.9	29.3	Fish habitat, scenic, and recreation resource values are common compared to the region.
Koggiling Creek	82.3	49.4	Fish habitat, scenic, and recreation resource values are common compared to the region.
**Kvichak River	44.4	0.0	Not under BLM jurisdiction. Largest sockeye salmon run in the world. In addition to fisheries, subsistence and wildlife resource values are exemplary to unique compared to the region.
**Kvichak tributary	104.0	20.4	Common scenic and recreation resource values compared to the region.
Levelock Creek	28.8	7.3	Moderate BLM jurisdiction. Fisheries resource values are unknown in the area.
Lower Klutuk Creek	54.0	12.0	Minimum BLM jurisdiction. Fish habitat unknown. Scenic and Recreation resource values common in the local and regional area.
Mulchatna River tributary	9.3	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Nanachuak tributary	67.0	29.6	Moderate BLM jurisdiction. Fish habitat unknown. Scenic resource values common in the region.
Napotoli Creek	36.0	0.0	Not under BLM jurisdiction. Fisheries, scenic, and recreation resource values are common compared to the region.
Nautilus Creek	7.9	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Nushagak River tributary	8.2	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Nushigak tributary	58.7	42.2	Common scenic resource values as compared to the region.
Ole Creek	34.9	24.8	Fisheries resource values are unknown in the area.

River Segment	Miles (total)	Miles BLM	Comments
Paul's Creek	47.8	3.2	Minimum BLM jurisdiction. Fisheries, scenic, and recreation resource values common as compared to the region.
Pile River	29.3	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Portage Creek	11.3	2.9	Minimum BLM jurisdiction. Common to unknown resource values in the area and region.
Puyulik Creek	9.9	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Squaw Creek	8.0	0.0	Not under BLM jurisdiction. Common to unknown resource values in the local area and region.
Tivyagak Creek	30.0	24.1	Fisheries and recreation resource values common compared to the region.
Upper Talarik Creek	34.3	0.0	Not under BLM jurisdiction. High quality of several resources values compared to the region.
Velvet Creek	4.1	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Yellow Creek	30.5	7.3	Moderate BLM jurisdiction. Common fisheries, scenic, and recreation resource values as compared to the region.

* Much of the headwaters of the Alagnak are a designated national wild & scenic river.
** Recently, a Recordable Disclaimer of Interest finding was issued by BLM for the Kvichak River. This Disclaimer clarifies that the Federal government does not have a competing interest (with the State of Alaska) in the submerged lands. Because BLM doesn't have jurisdiction for this river, the waterway was not included in the analysis.
(Note): All river waterways identified above have high quality cultural resource values in their respective regional areas. The potential for the discovery of cultural resources is based on the extent and number of known cultural sites in the area and the type of resources found in the region (e.g. a corridor providing important access and fishery resources, traditional game hunting area, native village, etc.). This would increase the likelihood of a discovery if a survey were conducted. To date, approximately 5% of Alaska has been surveyed for historic or pre-historic sites.

Table B.2. Comparison of Relative Resource Values of River Segments

River Segment	Cultural (potential)	Historic	Fish Habitat	Scenic	Recreation	Sub-sistence	Wildlife
*Alagnak River	3	3	2	3	2	4	3
*Alagnak tributary	3	3	3	3	4	3	3
Arolik River South Fork	3	3	3	3	3	3	3
Bear Creek	3	3	4	4	4	3	3
Ben Courtny Creek	3	3	4	4	3	3	3
Canyon Creek	3	3	5	3	3	3	3
Chekok Creek	3	3	4	4	4	3	3
Coffee Creek	3	3	4	4	4	4	4
Copenhagen Creek	3	3	4	4	4	4	4
Cranberry Creek	3	3	4	3	3	3	3

River Segment	Cultural (potential)	Historic	Fish Habitat	Scenic	Recreation	Sub-sistence	Wildlife
Cripple Creek	3	3	4	3	3	3	3
Dome Mountain Creek	3	3	4	3	4	3	3
Faro Creek	3	3	4	3	3	4	4
Goodnews River	3	3	2	3	3	2	3
Goodnews R.Middle Fork	3	3	2	3	3	3	3
Goodnews R. South Fork	3	3	3	3	3	3	3
Granite Creek	3	3	4	3	3	3	3
Graveyard Creek	3	3	5	3	3	4	4
Iliamna River	3	3	3	3	3	3	3
Indian River South Fork	3	3	4	3	4	3	3
Jacksmith Creek	3	3	4	3	3	3	3
Kashanak Creek	3	3	4	3	3	3	3
King Salmon Creek	3	3	4	3	3	3	3
Klutuk Creek	3	3	4	4	4	3	3
Koggiling Creek	3	3	4	4	4	3	3
**Kvichak River	3	3	3	4	4	3	3
Kvichak tributary	3	3	3	4	4	3	3
Levelock Creek	3	3	5	4	3	3	3
Lower Klutuk Creek	3	3	5	4	4	3	3
Mulchatna R. tributary	3	3	5	3	3	3	3
Nanachuak tributary	3	3	5	4	3	3	3
Napotoli Creek	3	3	4	4	4	3	3
Nautilus Creek	3	3	5	3	3	3	3
Nushagak River tributary	3	3	5	4	3	3	3
Nushigak tributary	3	3	3	4	3	3	3
Ole Creek	3	3	4	3	3	3	3

River Segment	Cultural (potential)	Historic	Fish Habitat	Scenic	Recreation	Sub-sistence	Wildlife
Paul's Creek	3	3	4	4	4	3	3
Pile River	3	3	4	3	3	3	3
Portage Creek	3	3	5	4	4	4	4
Puyulik Creek	3	3	5	3	3	3	3
Squaw Creek	3	3	5	4	4	4	4
Tivyagak Creek	3	3	4	3	4	3	3
Upper Talarik Creek	3	3	3	3	3	3	3
Velvet Creek	3	3	5	3	3	3	3
Yellow Creek	3	3	4	4	4	3	3

Key to Ratings: 1 – Exemplary, one of the better examples of that type at a national level.
2 – Unique, a resource or combination of resources that is one of a kind at a regional level.
3 – High quality at a regional and/or local level.
4 – A common resource at the regional and/or local level.
5 – Unknown.

* Much of the Alagnak headwaters are a designated national wild & scenic river.

** Recently, a Recordable Disclaimer of Interest finding was issued by BLM for the Kvichak River. This Disclaimer clarifies that the Federal government does not have a competing interest (with the State of Alaska) in the submerged lands. Because BLM doesn't have jurisdiction for this river, the waterway was not included in the analysis.

The resource evaluations conducted and documented within Table B-2 above were accomplished by the following BLM resource specialists:

Donna Redding-Archeologist
Mike Scott-Fisheries Biologist
Tim Sundlov-Fisheries Biologist
Jeff Kowalczyk-Recreation Planner
Doug Ballou-Recreation Planner
Bruce Seppi-Wildlife Biologist
Jeff Denton Subsistence Coordinator

In order to be eligible for designation as a component of the National Wild & Scenic River System, a river must be both free-flowing and possess one or more "outstandingly remarkable" characteristics described below. An Outstandingly Remarkable Value (ORV) is defined as a unique, rare or exemplary feature that is significant at a comparative regional or national scale. Thus, those rivers receiving a score of "1" or "2" contain ORVs.

While the spectrum of resources that may be considered is broad, ORVs must be directly river-related. That is, they should:

1) Be located in the river or on its immediate shore lands (within ½ mile on either side of the river);
2) Contribute substantially to the functioning of the river ecosystem; and/or
3) Owe their location or existence to the presence of the river.

Eligibility Evaluations of the 45 Waterways

Table B.3 summarizes the eligibility determinations of the 45 waterways that were screened during the eligibility study. Forty two waterways were found ineligible and dropped from further study. Three waterways were found eligible and were assigned a tentative classification of wild, scenic, or recreational. The table is followed by narrative descriptions providing detailed explanations of the eligibility determinations. The tentative classifications are described in the next section.

Table B.3. Summary of River Segment Eligibility and Tentative Classification

River Segment	Percent BLM	Comments
*Alagnak River	0.0	Found eligible for its fish habitat and recreation resource values; tentatively classified as Wild
Alagnak tributary	77.3	Not eligible-no ORV found
Arolik River South Fork	36.6	Not eligible-no ORV found
Bear Creek	44.6	Not eligible-no ORV found
Ben Courtny Creek	22.1	Not eligible-no ORV found
Canyon Creek	0.0	Not eligible-no ORV found
Chekok Creek	13.5	Not eligible-no ORV found
Coffee Creek	75.2	Not eligible-no ORV found
Copenhagen Creek	38.0	Not eligible-no ORV found
Cranberry Creek	0.0	Not eligible-no ORV found
Cripple Creek	88.9	Not eligible-no ORV found
Dome Mountain Creek	51.3	Not eligible-no ORV found
Faro Creek	81.8	Not eligible-no ORV found
Goodnews River	0.0	Found eligible for its fish habitat and subsistence resource values; tentatively classified as Wild
Goodnews River Middle Fork	0.0	Found eligible for its fish habitat resource values; tentatively classified as Wild
Goodnews River South Fork	27.9	Not eligible-no ORV found
Granite Creek	0.0	Not eligible-no ORV found
Graveyard Creek	9.6	Not eligible-no ORV found
Iliamna River	0.0	Not eligible-no ORV found
Indian River South Fork	0.0	Not eligible-no ORV found
Jacksmith Creek	87.2	Not eligible-no ORV found
Kashanak Creek	74.9	Not eligible-no ORV found
King Salmon Creek	43.2	Not eligible-no ORV found
Klutuk Creek	39.6	Not eligible-no ORV found
Koggiling Creek	34.6	Not eligible-no ORV found
**Kvichak River	0.0	See note at bottom of Table B.1
Kvichak tributary	19.6	Not eligible-no ORV found
Levelock Creek	25.3	Not eligible-no ORV found
Lower Klutuk Creek	22.2	Not eligible-no ORV found
Mulchatna River tributary	0.0	Not eligible-no ORV found
Nanachuak tributary	44.2	Not eligible-no ORV found
Napotoli Creek	0.0	Not eligible-no ORV found
Nautilus Creek	0.0	Not eligible-no ORV found
Nushagak River tributary	0.0	Not eligible-no ORV found
Nushigak tributary	71.9	Not eligible-no ORV found
Ole Creek	71.2	Not eligible-no ORV found
Paul's Creek	6.7	Not eligible-no ORV found
Pile River	0.0	Not eligible-no ORV found
Portage Creek	25.7	Not eligible-no ORV found
Puyulik Creek	0.0	Not eligible-no ORV found
Squaw Creek	0.0	Not eligible-no ORV found
Tivyagak Creek	80.3	Not eligible-no ORV found

River Segment	Percent BLM	Comments
Upper Talarik Creek	0.0	Not eligible-no ORV found
Velvet Creek	0.0	Not eligible-no ORV found
Yellow Creek	23.9	Not eligible-no ORV found
* Much of the headwaters of the Alagnak are a designated national wild & scenic river. ** Recently, a Recordable Disclaimer of Interest finding was issued by BLM for the Kvichak River. This Disclaimer clarifies that the Federal government does not have a competing interest (with the State of Alaska) in the submerged lands. Because BLM doesn't have jurisdiction for this river, the waterway was not included in the analysis.		

Alagnak River

Outstandingly Remarkable Values: Fish Habitat and Recreation
Classification: Wild
Land status of uplands: Native Selected Priority 1, State-selected Priority 1 or 2

BLM manages 0.0 miles of this 98.4 mile waterway, river not under BLM jurisdiction. Approximately 0.10 river miles passes through BLM-managed/Native-selected uplands. Originating in Katmai National Preserve's Kukaklek Lake, has abundant wildlife, including brown bear, moose, beaver, river otter, bald eagle, and osprey. Visitors enjoy the fishing along this clear, braided river, as well as the striking changes in landscape, large undeveloped lakes, boreal forest, wet sedge tundra, shrubby islands, and Class I-III rapids. Much of the headwaters are currently a designated Wild component of the National Wild & Scenic River System, managed by NPS.

Alaska Heritage Resources Survey (AHRS) sites have not been identified in the area. This area has not been surveyed for historic or prehistoric sites, however the river corridor which appears to provide important access and fishery resources suggest a moderate to high potential for the discovery of cultural resources.

Goodnews River (mainstem)

Outstandingly Remarkable Values: Fish Habitat and Subsistence
Classification: Wild
Land status of uplands: Native-selected Priority 1, State-selected Priority 1 or 2

BLM manages 0.0 miles of this 15.1 mile river. Unique fisheries and subsistence resource values in the regional area. A popular float trip of intermediate duration for the experienced or novice rafter. The upper river has a slow current; the current increases in the middle section, with no obstructions to navigate. Most of the shoreline vegetation is tundra with a few stands of cottonwood and willows. Tidal influence is noticeable 10 miles from the mouth in the multiple channels and sloughs. Watercraft: raft with a rowing frame is recommended. Float Duration: 5-6 days from Goodnews Lake to mouth. Attributes: Seasonally excellent angling opportunities for salmon and Dolly Varden, rainbow trout and grayling. Un-baited single-hook artificial lures in all flowing waters. Access: Aircraft charter services are available from Bethel or Dillingham. Land Mangers: State of Alaska, Togiak National Wildlife Refuge and private ownership. Fish habitat was identified as the outstandingly remarkable value and the region was tentatively classified as Wild.

Alaska Heritage Resources Survey (AHRS) sites have not been identified in the area. This area has not been surveyed for historic or prehistoric sites. However, the river corridor, which appears to provide important access and fishery resources, suggests a moderate to high potential for the discovery of cultural resources.

Goodnews River Middle Fork

Outstandingly Remarkable Value: Fish Habitat
Classification: Wild
Land status of uplands: Native-selected Priority 1

BLM manages 0.0 miles of this 38.1 mile river. There are unique fisheries resource values as compared to other rivers in the regional area. The Middle Fork is the main tributary and parallels the mainstem of the Goodnews River for its entire length and joins near the mouth. Fish habitat was identified as the outstandingly remarkable value and the region tentatively classified as Wild.

Alaska Heritage Resources Survey (AHRS) sites have not been identified in the area. This area has not been surveyed for historic or prehistoric sites. However, the river corridor, which appears to provide important access and fishery resources, suggests a moderate to high potential for the discovery of cultural resources.

b) Phase Two: The Classification Analysis

The classification analysis determines whether a river should be tentatively classified as recreational, scenic, or wild. This determination is based on the level of development present in the river corridor as it exists at the time of the study. The determining factors include waterway development, shoreline modification and vehicular access.

The three classification categories for eligible rivers are defined as follows.

Wild River Areas
Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Scenic River Areas
Those rivers or sections of rivers that are free of impoundments with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational River Areas
Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

A wild river would be an undeveloped river with very limited access. A scenic classification would be applied to a river or river segment that is more developed than a wild river and less developed than a recreational river. A recreational classification would be appropriate in developed areas, such as a river running parallel to roads or railroads with adjacent lands that have agricultural, forestry, commercial or other developments, provided that the waterway remains generally natural and riverine in appearance. Attributes of each category are listed in Table B.4.

It is a common misunderstanding that rivers designated as scenic are managed primarily for scenery, and that recreational rivers are managed to promote recreation use. These labels can be misleading. Regardless of the classification, management is designed to maintain or enhance the river-related values and character of the river.

The Goodnews River mainstem, Goodnews River Middle Fork and Alagnak River best match the classification category of Wild, compared to the classification of other designated Wild, Scenic, and Recreational river segments in Alaska. Refer to Table B.4, which relates attributes of the three river classifications under the national Wild and Scenic River system.

Table B.4. Attributes of the Three River Classifications for Inclusion in the National Wild and Scenic Rivers System

Wild	Scenic	Recreational
Free flowing. Low dams, diversion works, or other minor structures that do not cause flooding of the natural riverbank may not bar consideration. Future construction is restricted.	Free flowing. Low dams, diversion works, or other minor structures that do not cause flooding of the natural riverbank may not bar consideration. Future construction is restricted.	May have undergone some impoundment or diversion in the past. Water should not have characteristics of an impoundment for any significant distance. Future constriction is restricted.
Generally inaccessible by road. One or two inconspicuous roads to the area may be permissible.	Accessible by roads that may occasionally bridge the river area. Short stretches of inconspicuous and well-screened roads or railroads paralleling the river area may be permitted.	Readily accessible with likelihood of paralleling roads or railroads along riverbanks and bridge crossings.
Shoreline is essentially primitive. One or two inconspicuous dwellings and land devoted to production of hay may be permitted. Watershed is natural in appearance.	Shoreline is largely primitive. Small communities are limited to short reaches of the total area. Agricultural practices that do not adversely affect the river area may be permitted.	Shoreline may be extensively developed.
Water quality meets minimum criteria for primary contact recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream.	Water quality meets minimum criteria for primary contact recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream, or capable of being restored to that quality.	Water quality meets minimum criteria for primary contact recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream, or capable of being restored to that quality.

c) Phase Three: The Suitability Assessment

The third component of a WSR study is the suitability assessment. It is designed to identify the impacts of designation and manageability of eligible rivers. The portion of the suitability assessment contained in this report identifies issues to be considered in the environmental consequences section (Chapter IV). In addition, the willingness of county, state and local landowners to participate in river corridor management is considered. These aspects of the suitability assessment are also considered in Chapter IV.

Criteria for Determining Suitability

In considering suitability, the criteria specified in Section 4a of the Wild and Scenic Rivers Act (listed below) provide a basis for assessment.

- Characteristics that do or do not make the river corridor a worthy addition to the WSR system
- Current status of land ownership and uses in the area
- Reasonably foreseeable potential uses of the land and water that would be enhanced, foreclosed or curtailed if the river were designated
- Public, state, local or other interests in designation or non-designation of the river
- Estimated costs of acquiring necessary lands and interests in lands, and of administering the river if designated
- Ability of the agency to manage the river and protect identified values
- Historical or existing rights that would be adversely affected by designation
- Other issues and concerns identified in the land-use planning process

Suitability Findings

Alagnak River: Unsuitable. The 98.4 mile Alagnak River travels through approximately 0.10 miles of current BLM-managed lands. The majority of the headwaters are currently designated as a national wild and scenic river. The BLM-managed uplands are both Native and State priority selected so long-term retention of federal ownership and management of the ORVs by BLM is unlikely.

Goodnews River (mainstem): Unsuitable. BLM manages 0.0 miles of this 15.1 mile river. The uplands are both Native and State priority selected so long-term retention of federal ownership and management of the ORVs by BLM is unlikely.

Goodnews River Middle Fork: Unsuitable. BLM manages 0.0 miles of this 38.6 mile river. The uplands are Native priority selected so long-term retention of federal ownership and management of the ORVs by BLM is unlikely.

The above analyses of river suitability criteria are based on current and future land ownership, foreseeable land conveyance priorities, resource issues and public involvement. Chapter II of the Proposed Plan provides suitability recommendations. Comments on the Draft Plan were considered in arriving at a recommendation on whether these river segments are suitable for inclusion in the National WSR System. Classification categories for various river segments were completed as per direction of the BLM Manual 8351.

Suitability Summary

BLM does not manage any portions of the rivers for the three eligible and tentatively classified waterways. The majority of the waterways analyzed are not managed by BLM or are State- or Native-selected and long-term retention of the parcels in federal ownership and management of the ORVs by BLM is unlikely. None of the three eligible and tentatively classified rivers are considered manageable waterways under BLM, and they are found to be unsuitable for inclusion in the National WSR System.

B. Areas of Critical Environmental Concern (ACEC) Evaluation

1. Introduction

The Code of Federal Regulations at 43 CFR §1610.7-2 provides for the designation of areas of critical environmental concern (ACECs). Areas having potential for ACEC designation and protection management are identified and considered within the context of the resource management planning process. Inventory data were analyzed to identify areas containing resources, values, systems and processes or hazards that would make them eligible for further consideration for designation as an ACEC. Section 202(c)(3) of the Federal Land Policy and Management Act (FLPMA) requires that priority be given to the designation and protection of ACECs. FLPMA Section 103(a) defines ACECs as public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes or to protect life and safety from natural hazards.

This report provides the evaluation of two areas proposed for designation as ACECs, Bristol Bay and Carter Spit, which were evaluated as part of the Bay Resource Management Plan/Environmental Impact Statement.

What are the Criteria for ACEC Designation?

Relevance: An area is considered relevant if it contains one or more of the following:

- A significant historic, cultural, or scenic value (for example, rare or sensitive archaeological resources and religious or cultural resources important to Native Americans)
- A fish and wildlife resource (for example, habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity)
- A natural process or system (for example, endangered, sensitive, or threatened plant species; rare, endemic, or relict plant communities; and rare geologic features)
- A natural hazard (for example, areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs) A hazard caused by human action could meet the relevance criteria if it is determined through the resource management planning process that it has become part of the natural process.

Importance: The value, resource, system, process, or hazard described above must have substantial significance to satisfy the importance criteria, which generally means it is characterized by one or more of the following:

- Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
- Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to change.
- Has been recognized as warranting protection to satisfy national priority concerns or to carry out FLPMA mandates.
- Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
- Poses a significant threat to human life and safety or to property.

2. The Process

1. Evaluate existing ACECs for modification due to the change of conditions affecting the relevance and importance criteria. No ACECs are currently designated in the Bay planning area.
2. Nominate new areas with relevance and importance.
3. Consider the potential ACECs as Alternatives that are analyzed and addressed in the RMP/EIS.

A matrix was used to evaluate the relevance and importance (R/I) of physical attributes associated with various regions within the Bay planning area. Justification is given for attributes receiving a value of one or two. Two Alternatives are represented due to public comments received after publication of the Bay Draft RMP/EIS. Public comments were reviewed and considered, and modifications have been made.

Table B.5 was used to assess R/I of ACECs proposed within the Draft RMP/EIS. Due to public comments received after publication of the Bay Draft RMP/EIS, an additional evaluation was performed to access the boundary of the Carter Spit ACEC (Table B.6), which was proposed within the preferred alternative (Alternative D) in the Draft RMP/EIS. Designation of ACECs will occur in the Record of Decision (ROD) upon approval of the RMP.

The ACEC evaluations in the Bay Draft RMP/EIS were conducted by the following specialists:

Mike Scott/Tim Sundlov-Fisheries
Jeff Denton/Bruce Seppi-Wildlife and Subsistence
Doug Ballou/Jeff Kowalczyk-Recreation
Donna Redding- Cultural and Historic

Public comment indicated that the boundary of the proposed Carter Spit ACEC should be reevaluated by BLM. This review was conducted by the following specialists:

Tim Sundlov-Fisheries
Bruce Seppi-Wildlife and Subsistence
Donna Redding- Cultural and Historic
Chuck Denton- Hydrologist

a) Alternative C

Table B.5. Areas of Critical Environmental Concern Nomination Matrix (Alternative C)

	Name of BLM Land Block	BLM Land Status	Acres	Wildlife		Cultural		Historic		Fisheries		Scenic		Subsistence	
				*R	*I	R	I	R	I	R	I	R	I	R	I
Bristol Bay Region	Klutuk Creek	U*	129,173	3	3	3	3	3	3	3	3	4	4	3	2
	Yellow Creek	U*	243,689	3	4	3	3	3	3	4	4	4	4	4	3
	Koggiling Creek	U*	159,732	3	4	3	3	3	3	4	4	4	4	4	4
	Kvichak	U*	99,158	3	3	3	3	3	3	3	3	4	4	4	3
	Iliamna West	U*	182,993	3	2	3	3	3	3	3	3	3	4	3	2
	Alagnak	U*	126,023	3	4	3	3	3	3	3	3	4	4	4	3
Goodnews Bay Region	Carter Spit	U*	62,862	1	2	2	2	3	3	3	3	3	3	3	2
	Faro Creek	U*	20,737	3	3	3	3	3	3	2	2	3	3	3	4
	Arolik River	U*	17,022	3	3	3	3	3	3	2	2	3	3	3	4
	Goodnews River South Fork	U*	32,294	3	3	3	3	3	3	2	2	3	3	3	4

* R: Relevance ; I: Importance
U* indicates unencumbered BLM lands. Some lands may be top-filed by the State of Alaska.

The following general rating system used for Relevance and Importance determination is listed below:
1 - Exemplary, one of the better examples of that type of resource at a national level.
2 - Unique, a resource or combination of resources that is one of a kind at a regional level.
3 - High quality at a regional and/ or local level.
4 - Common resource at a regional and/ or local level.

(1) Cultural/Historic

Overall the proposed ACECs within the Bay Plan have few recorded historic or archaeological sites. This is not because these areas are not significant but rather that they are remote, undeveloped and have not been intensively surveyed.

The Carter Spit area is designated priority 2 for cultural resources, not only for its known cultural resources but also because it has high potential for undiscovered resources given its geographic setting on the coast and location within prime hunting areas for marine and terrestrial game as well as fishing areas.

The proposed Bristol Bay ACECs appear to have potential for historic or prehistoric sites and will be designated priority 3 for unknown potential.

(2) Fisheries

Goodnews Bay Region

South Fork of the Goodnews River
The South Fork of the Goodnews River provides spawning and rearing habitat for economically important subsistence, commercial and recreational fisheries in the main stem Goodnews River. The historic average salmon escapement to the main stem Goodnews River is 3,137 Chinook salmon, 36,925 sockeye salmon, 21,284 chum salmon, and 27,897 coho salmon (Linderman 2005a). Stewart (2004) estimates that less than 10% of returning salmon to the Goodnews watershed spawn in the South Fork. Residents of Quinhagak, Goodnews Bay, and Platinum, located along the south shore of Kuskokwim Bay (approximately 220 households), harvest subsistence salmon primarily from Kanektok, Arolik, and Goodnews River drainages (ADF&G 2001). The rainbow trout stocks which inhabit the Kuskokwim Bay streams are considered “world class” with high catch rates and are capable of producing rainbow trout that exceed 25 inches (ADF&G 2004). The stem of the Goodnews River supports the second largest sport fishery in the Kuskokwim Bay Area and angler effort (angler days) has averaged 2,522 from 1983 to 2002 (Lafferty 2004).

Faro Creek and the South and East Fork of the Arolik River
Faro Creek and the South and East Fork of the Arolik River provide spawning and rearing habitat for economically important subsistence, commercial and recreational fisheries in the main stem Arolik River. The headwaters of these tributaries are located within an area of medium to high mineral potential. The Arolik River is a significant salmon producing river that drains into Kuskokwim Bay (Linderman 2005b). Residents of Quinhagak, Goodnews Bay, and Platinum, located along the south shore of Kuskokwim Bay (approximately 220 households), harvest subsistence salmon primarily from Kanektok, Arolik, and Goodnews River drainages (ADF&G 2001). The rainbow trout stocks which inhabit the Kuskokwim Bay area are considered “world class” with high catch rates and are capable of producing rainbow trout that exceed 25 inches (ADF&G 2004). The Arolik River supports the third largest rainbow trout sport fishery in Kuskokwim Bay and angler catch has averaged 1,122 fish from 1997 to 2002 (Lafferty 2004).

Carter Spit and coastal wetlands

Jacksmith Creek

Cripple Creek
Cripple Creek also drains into the Kuskokwim Bay and produces Chinook, chum, pink, and coho salmon, and whitefish. These anadromous fish species use the river for spawning, rearing, and migratory habitat; therefore this river is characterized as EFH by the NMFS, AWC #335-00-10750. Production of salmon from this river also contributes to the subsistence and commercial harvest for the villages of Goodnews and Quinhagak.

(3) Subsistence and Wildlife Resources

Goodnews Bay Region: Carter Spit and coastal wetlands

There are several wildlife related resources that justify essential habitats for maintaining species diversity. Carter Bay and coastal areas provide molting and staging habitat for Steller's Eiders, a threatened species under the Endangered Species Act (Shaw et al. 2004). Many BLM sensitive species use the area for staging and migration in fall including black brant, black scoters, blackpoll warblers bristle thighed curlews, grey cheeked thrush, harlequin ducks, king eiders, long-tailed ducks, red-knot, hudsonian godwit, red-throated loon, surf scoter, white-fronted geese and occasional harbor seals (Seppi,1997). Carter Bay and coastal areas provide molting habitat for white-winged scoters and lesser scaup (Shaw et al. 2004). Several species of rare plants have been documented in the Carter Spit/Goodnews Bay area (Lipkin 1996, Parker 2005). The coastal estuaries and watersheds have concentrations of breeding shorebirds and waterfowl, including several trans-oceanic shorebird species. Beluga whales, Steller sea lions, harbor seals and bearded seals are found in tidal bays and the coastal fringes of the area (NOAA 2003). Subsistence activities serve local communities, through egging and spring waterfowl hunting, and seal and Beluga whale hunting. The area is subject to the effects of global warming in the form of active shoreline modifications from rising sea levels, increased storminess, and reduction of pack ice. Brown bears concentrate in coastal areas in spring to forage on vegetation and marine mammal carcasses, and later concentrate on salmon runs on coastal streams.

The islands in Carter Bay and other associated coastal estuaries are Maritime National Wildlife Refuge managed but their ecosystems are dependent upon the mainland terrestrial watersheds for fresh water sources to maintain estuary tidal flat ecosystems adjacent to BLM lands (NOAA, 2003). The Jacksmith Creek watershed is the fresh water source for the Togiak National Wildlife Refuge Coastal Wetlands and Jacksmith Bay/Carter Spit estuary and mudflats.

Should portions of the Indian River watershed remain in long-term BLM jurisdiction, it may potentially be added to the Carter Spit ACEC.

Bristol Bay Region

The Bristol Bay region holistically provides seasonal habitats for the Mulchatna Caribou Herd and the fisheries forage base for brown bears. The area has concentrations of nesting trumpeter (Gibson and Maley 2003) and tundra swans (Wilk 1988) and widespread wetland habitats, which have moderate productivity. However, cumulatively the area ranks high in statewide waterfowl productivity. Waterfowl produced in Bristol Bay are harvested throughout the Pacific flyway. Sensitive species in the region include trumpeter swans, white-winged and black scoters, black-poll warblers, rusty blackbirds and bald eagles. BLM lands provide movement corridor continuity for caribou movement and crucial seasonal habitats including calving and crucial winter range. Five plant species have been listed as rare by the Alaska Natural Heritage Program (Batten and Parker 2003). Adjacent tidal mudflats in Kvichak Bay and Nushagak Bay are recognized as a shorebird migration stopover site of regional importance, under the Western Hemisphere Shorebird Reserve Network (WHSRN 2005).

BLM planning blocks do not individually rank highly as either relevant or important for wildlife due to the widespread occurrence and use of wildlife resources. Subsistence use of wildlife resources are mostly local and regional importance. Sport harvest is subject to statewide, non-resident and international demand for large game.

b) Alternative D

(1) Bristol Bay ACEC

The Bristol Bay ACEC is not presented in the preferred alternative because it does not meet the relevance and importance criteria as established in 43 CFR §1610.7-2 and resources within this region, though mostly considered a high quality [resource] at a regional and/ or local level, does not warrant special management attention through ACEC designation as defined in FLPMA Section 103(a). Rather, Required Operating Procedures, Stipulations, and site/project-specific requirements will be used to protect the resources.

(2) Carter Spit ACEC

Response to comments concerning Carter Spit ACEC Boundary. Date: 2/9/07

The proposed Carter Spit ACEC boundary, in the Bay DEIS, includes portions of the Jacksmith Creek and Cripple Creek watersheds. This area was suggested as a proposed ACEC due to relevance and importance of its wildlife attributes. The boundary of the Carter Spit ACEC proposed in Alternative C and D of the DEIS was delineated with the perception that these creeks contribute significantly to the marshes and estuaries that compose the lowland area which provide the unique environment that support molting and staging habitat for Steller's eiders, a threatened species under the Endangered Species Act (Shaw et al. 2004). The review of the Carter Spit ACEC boundary consisted of a BLM hydrologist review of the boundary area. This review was absent from the original evaluation of the ACEC boundary.

Jacksmith Creek initiates from unencumbered BLM lands and briefly meanders through the lowlands,

Table B.6. Areas of Critical Environmental Concern Nomination Matrix (Alternative D)

Name of BLM Land Block	BLM Land Status	Acres	Wildlife		Cultural		Historic		Fisheries		Scenic		Subsistence	
			R	I	R	I	R	I	R	I	R	I	R	I
Carter Spit	U*	36,220	1	2	2	2	3	3	3	3	3	3	3	2

* R: Relevance; I: Importance
U* indicates unencumbered BLM lands. Some lands may be Top Filed by the State of Alaska

C. Summary

This boundary adjustment does not affect the relevance and importance criteria of area attributes as

status.

References

Alaska Department of Fish and Game. 2001. Alaska Subsistence Fisheries 1999 Annual Report. Alaska Department of Fish and Game Division of Subsistence. Juneau.

—. 2004. Staff comments on subsistence, personal use, sport, guided sport, and commercial finfish regulatory proposals for Artic-Yukon-Kuskokwim Area finfish Alaska Board of Fisheries meeting. Alaska Department of Fish and Game, Fairbanks, Alaska.

—. 2005a. Goodnews River salmon monitoring and assessment, 2004. Series No. 05-41, Anchorage.

—. 2005b. Kanektok River salmon monitoring and assessment, 2004. Series No. 05-37, Anchorage.

Batten, A., and C. Parker. 2003. Vascular plant collections from northwestern Alaska Peninsula – summer 2003. University of Alaska Museum Herbarium, Fairbanks, Alaska. p16.

Gibson, D. D. and J. M. Maley. 2003. University of Alaska Museum- Bureau of Land Management. Biodiversity survey. File report to the Bureau of Land Management, University of Alaska Museum, Fairbanks, Alaska. p.6.

Lafferty, Robert. 2004. Fishery Management Report for Sport Fisheries in the lower Yukon - lower Kuskokwim Management Area for 2002-2003. Alaska Department of Fish and Game, Fishery Management Report Series No. 40-03, Anchorage.

Lipkin, R. 1996. A botanical survey of the Goodnews Bay Region, Alaska. Report to Bureau of Land Management- Anchorage Field Office. Alaska Natural Heritage Program, University of Alaska, Anchorage. p.35.

Office of the Federal Register. National Archives and Records Administration.
October 1, 2005 Code of Federal Regulations 43 CFR 1610.7-2.

Parker, C. L. 2005. Vascular plant inventory of the Ahklun Mountain Goodnews Bay vicinity, southwestern Alaska. University of Alaska Museum of the North Herbarium, Cooperative agreement LAA-02-0001 with the Bureau of Land Management. p.42.

Seppi, B. E. 1997. Fall migration of shorebirds and waterfowl at Carter Spit, Alaska. BLM-Open File Report 65, BLM/AK/ST-97/018+6700+040. p.36.

Shaw, D. W. J. M. Maley, and D. D. Gibson. 2004. UAM-BLM bird survey: Goodnews Bay, June and July 2004. File report to BLM-Anchorage field Office. p.9.

Stewart, R. 2004. Middle Fork Goodnews River weir, (2003). Alaska Department of Fish and Game, Commercial Fisheries Division, Regional Information Report No. 3A04-20, Anchorage.

U. S. Dept of Commerce, National Oceanic and Atmospheric Administration. (2003). Sensitivity of Coastal Environments and Wildlife to Spilled Oil- Western Alaska Atlas.

Western Hemisphere Shorebird Reserve Network. 2005.

Wilk, R. J. 1988. Distribution, abundance, population structure and productivity of tundra swans in Bristol Bay, Alaska. Arctic vol. 41. No.4. pp.288-292.