

6. Evaluation of the Alternatives

6.1 Evaluation Criteria

The alternatives described in chapter 2 were evaluated against six criteria based on existing law and policy. These criteria were selected as being the most important factors to be used in selecting the preferred alternative. Following are these criteria, in order of importance:

1. How well does the alternative satisfy the purposes of Tetlin National Wildlife Refuge (Tetlin Refuge, Refuge) and other provisions of the Alaska National Interest Lands Conservation Act (ANILCA)?
2. How well does the alternative satisfy the mission of the National Wildlife Refuge System?
3. How well does the alternative contribute to meeting the goals of the Refuge?
4. How does the alternative address the issues and concerns identified during scoping?
5. How well does the alternative maintain biological integrity, diversity, and environmental health at the refuge and ecosystem scales and contribute to managing the Refuge as part of an ecosystem?
6. How well does the alternative agree with Alaska Department of Fish and Game (ADF&G) management plans for the area?

The differences among the alternatives are relatively small. Each action alternative (Alternatives B and C) varies only slightly from the current management direction (1987 Tetlin Conservation Plan as modified by subsequent programmatic step-down plans); therefore, differences in meeting the evaluation criteria are slight. Alternatives that would clearly not meet the purposes of the Refuge or System mission were not developed. Scoping did not identify any major issues that would result in significant changes in management direction for the Refuge.

The most important criterion used in evaluating the alternatives is the degree to which the alternatives achieve the purposes of the Refuge as mandated by ANILCA. Chapter 5 describes the physical, biological, and socioeconomic impacts of each of the alternatives and provides a summary of the projected changes.

6.2 Response to Refuge Purposes

Alternatives A (Current Management) and B (Preferred Alternative) would best satisfy refuge purposes to conserve fish and wildlife populations and habitats in their natural diversity, preserve water quality and quantity, meet international treaty obligations, and provide opportunities for continued subsistence uses. Increased fire suppression efforts under Alternative C would likely alter the natural diversity of wildlife populations and their habitats over time. Alternatives A and B provide a slightly higher level of conservation of natural habitats and wildland values on the Refuge through less development and fewer facilities than proposed in Alternative C. Under all alternatives, the Refuge would continue to provide quality wildlife-dependent recreation opportunities.

6.3 Response to National Wildlife Refuge System Mission

All alternatives were developed with the Refuge System mission in mind, and all contribute to meeting that mission. The Refuge plays a part in supporting migratory birds, waterfowl, shorebirds, raptors, various fish species, and caribou that migrate to other areas seasonally. Many other species, such as brown bear, black bear, moose, Dall's sheep, wolf, wolverine, marten and muskrat, use the Refuge year-round.

6.4 Response to Refuge Goals

Refuge goals reflect the purposes of the Refuge and the missions of the National Wildlife Refuge System and the U.S. Fish & Wildlife Service (Service).

All the alternatives provide management direction to achieve refuge goals. Although the alternatives may differ in management strategies and tools used to ensure that fish and wildlife populations, their habitats, and other resources on the Refuge are properly cared for, they are all in conformance with law and policy. Common to all alternatives is the promotion of close working relationships with the State of Alaska, local communities, and other public and private partners.

Each alternative provides opportunities for compatible uses on the Refuge, including subsistence, wildlife-dependent recreation, and commercial activities. Although all the alternatives would meet resource needs and satisfy public interests, Alternatives B (Preferred Alternative) and C provide better options for meeting refuge goals than does Alternative A (Current Management). This is shown through the additional direction for monitoring and evaluation of resources on and public uses of the Refuge. (Goals and objectives for the Refuge are found in chapter 2, section 2.1.)

6.5 Response to Issues

This section summarizes the potential management actions that directly address the central planning issues identified in chapter 1 of this Plan.

6.5.1 Visitor Services Role in the Upper Tanana Valley

All three alternatives lay out a vision for defining the role of Tetlin Refuge in meeting increased recreational and subsistence demands in coming years within the upper Tanana Valley. Alternative A (Current Management) best defines the visitor services role for the Refuge and the implementation of refuge programs into the local communities of the entire upper Tanana Valley. Under Alternative A, the Refuge would continue in a more focused scope on refuge-related programs with some benefits to local economies through operational spending and refuge salaries. Alternatives B (Preferred Alternative) and C would work to have Tok formally recognized as a Gateway Community, focusing more on visitor services facilities and activities in that community than other communities within the upper Tanana Valley.

6.5.2 Public Use Facilities and Access

All alternatives would increase the number of public use facilities and access to the Refuge. Several actions proposed in Alternative A (Current Management) have not been funded since the original 1987 Plan was completed. Alternative B (Preferred Alternative) includes not only actions in Alternative A, but also additional actions to increase access, facilities, and services. Alternative C includes actions in Alternatives A and B, plus additional facilities, trails and access improvements. Most public comments have expressed the desire for increased public access to the Refuge and for improved and more easily accessible public use facilities.

Alternative C would best meet these demands, while Alternative A does the least to meet these demands. Actions proposed in Alternative B would fall somewhere between the other two alternatives in addressing this issue.

6.5.3 Management of Fire to Protect Resources and Property

Alternative A (Current Management) and B (Preferred Alternative) would each be equally effective in protecting resources from wildfires starting within the Refuge. However, Alternative B is more likely to be fully implemented given adequate funding, whereas Alternative A would require both funding and optimal prescribed burning conditions on a regular basis. The increased fire suppression effort associated with Alternative C would seem to provide a high level of protection, and may do so in the short-run. However, it is likely that this alternative could lead to fuels build-up and a much greater long-term risk from a large catastrophic fire in the future.

6.5.4 Habitat Management

Alternative B (Preferred Alternative) would best address concerns related to this issue by maintaining natural processes and the natural fire regime. Alternative A (Current Management) would use prescribed fire to meet annual acreage targets despite the fact habitats within the Refuge remain healthy and largely unaffected by human activity. Alternative C would suppress fire throughout large areas of the Refuge, reducing habitat diversity currently maintained by the natural fire regime.

6.5.5 Fisheries Management

Alternatives B (Preferred Alternative) and C best address this issue by maintaining natural lake ecosystems and fish populations within the Refuge. Lake stocking and fish population management as proposed in Alternative A (Current Management) would introduce fish to habitats where they did not historically occur and would alter the age and size structure of healthy Arctic grayling and northern pike populations.

6.6 Biological Integrity and Ecosystem Management

Service policy (601 FW 3) on maintaining biological integrity, diversity, and environmental health of the Refuge System provides refuge managers with direction to follow while achieving refuge purposes. The policy also provides an evaluation process for analyzing refuges and—through resource assessment, planning, and compatibility processes—for setting appropriate management direction to maintain and, where appropriate, restore biological integrity, diversity, and environmental health.

Natural processes are the dominant force at work within the Refuge with biological structure, function, diversity, and composition substantially unaltered from historic conditions. Alternative A (Current Management) and B (Preferred Alternative) would maintain these natural processes while achieving refuge management goals and objectives and effectively addressing other significant issues. Alternative C would effectively address planning issues over the short-term, but long-term fire suppression would not mimic the natural fire regime within the Refuge and would negatively affect biological integrity and diversity over time.