

# chapter 1



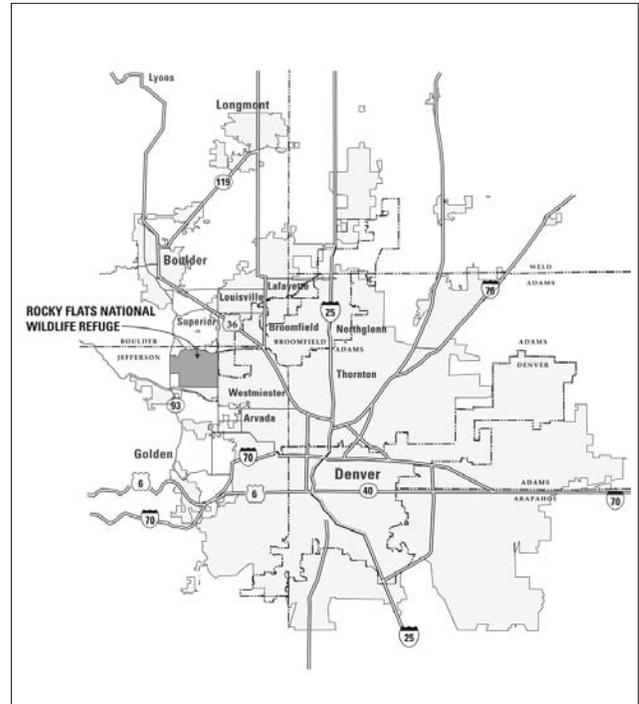
PURPOSE AND NEED

# Chapter 1. Purpose and Need

The Rocky Flats Environmental Technology Site is a 6,240-acre former nuclear defense facility operated by the U.S. Department of Energy (DOE). The site is 16 miles northwest of Denver, Colorado on the borders of Boulder, Broomfield, and Jefferson counties (Figure 1). The DOE acquired 2,519 acres in 1951, and an additional 4,027 acres in 1974 and 1975. Of these acres, 305 acres have been conveyed to the DOE's Wind Technology Site northwest of the site. All weapons manufacturing was performed in a 600-acre area in the middle of the site known as the Industrial Area. The area surrounding the Industrial Area is known as the Buffer Zone.

In 1992, the mission of the Rocky Flats site changed from weapons production to environmental cleanup and closure. The DOE is completing the cleanup in accordance with the Rocky Flats Cleanup Agreement (RFCA) under oversight by the U.S. Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE). The RFCA is a legally binding agreement between the EPA, CDPHE, and DOE that establishes the regulatory guidelines and framework for site cleanup. Because the EPA, CDPHE, and DOE signed the Rocky Flats Cleanup Agreement, these three agencies are known as the RFCA Parties.

During the comment period on the Draft CCP and EIS, numerous commentors had questions or concerns about the process of becoming a Refuge. Five sequential steps must be completed before Rocky Flats becomes a Refuge. The steps, discussed in more detail in the following sections, are:



**Figure 1. Regional Location.**

1. Service completes final CCP/EIS and issues a Record of Decision
2. DOE completes site cleanup except for operations and maintenance of cleanup and monitoring facilities
3. EPA certifies completion of cleanup
4. DOE transfers land to Department of the Interior
5. Department of the Interior establishes the Refuge and Service begins management

DOE is currently completing a wide range of interim cleanup actions. When these activities are completed, expected sometime between 2005 and 2006, the DOE will prepare a Remedial Investigation/ Feasibility Study (RI/FS) report describing any remaining contamination at the site. The report also will describe any additional cleanup actions that DOE may need to take. The report will be summarized in a document known as the Proposed Plan, which will be released for public comment before being finalized. After public comment has been incorporated, the Proposed Plan will become the basis for

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*The Refuge site was a former nuclear defense facility operated by the U.S. Department of Energy (DOE).*

a Corrective Action Decision/Record of Decision (CAD/ROD), which the RFCA Parties will sign. The CAD/ROD will determine the need for any additional cleanup, long-term monitoring, and land use controls necessary for the site.

Under the Rocky Flats National Wildlife Refuge Act of 2001 (P. L. 107-107) (Refuge Act - Appendix A), the site will become the Rocky Flats National Wildlife Refuge and be managed by the U.S. Fish and Wildlife Service (Service) when the EPA certifies that cleanup and closure at Rocky Flats have been completed and that all response actions are operating properly and successfully. Operations and maintenance (O&M) associated with response actions will be ongoing. "Response actions" are cleanup activities currently being undertaken or monitoring and maintenance activities following cleanup by the DOE at the Rocky Flats site. The EPA will not certify that cleanup and closure at Rocky Flats has been completed until after the RFCA Parties sign the CAD/ROD. The Service anticipates that EPA will de-list the site from the National Priorities List prior to certification. After EPA certification, DOE will transfer much of Rocky Flats to the Department of the Interior and the Service will manage it as a National Wildlife Refuge. DOE will be required to conduct post-closure environmental monitoring and remedy maintenance in accordance with a post-closure, long-term stewardship agreement approved by EPA and CDPHE. DOE will also review the cleanup remedy at least every 5 years with the EPA and CDPHE. The EPA and CDPHE can require DOE to undertake additional actions if post-cleanup monitoring indicates the cleanup is not protective of human health and the environment.

The majority of the site has remained undisturbed since its acquisition, and provides habitat for many wildlife species, including two species that are federally listed as threatened (bald eagle and Preble's meadow jumping mouse). Establishing the site as a unit of the National Wildlife Refuge System (NWRS) will promote the preservation and enhancement of its natural resources for present and future generations.

This document is a Final Comprehensive Conservation Plan (CCP) for the Rocky Flats National Wildlife Refuge. The CCP will guide management of Refuge operations, habitat restoration, and visitor services for the next 15 years. Guidance will be provided in the form of goals, objectives, strategies (Chapter 4) and compatibility determinations (Appendix B). Compatibility is discussed in more detail in a following *Compatibility Policy* section. This CCP is based on a Record of Decision (ROD) that identified a selected alternative (Appendix H). The selected alternative was one of the alternatives analyzed in

the Final EIS, Alternative B—Wildlife, Habitat, and Public Use. The EIS evaluates and compares four alternatives for managing wildlife, habitats, and human use of the proposed Refuge. It also describes the effects of restoration and visitor use on important physical, biological, social, and cultural resources.

## 1.1. LEGAL AND POLICY GUIDANCE

Refuges are managed to achieve the mission and goals of the NWRS and the designated purpose of the Refuge unit as described in establishing legislation, executive orders, or other establishing documents. Key concepts and guidance of the NWRS are provided in the National Wildlife Refuge System Administration Act of 1966 (P.L. 89-669), the Refuge Recreation Act of 1962 (P.L. 87-714), Title 50 of the Code of Federal Regulations, the Fish and Wildlife Service Manual and, most recently, the National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57) (Improvement Act). The Improvement Act amends the Refuge System Administration Act by providing a unifying mission for the NWRS, a new process for determining compatible public uses on refuges, and a requirement that each refuge be managed under a CCP. The Improvement Act states that wildlife conservation is the priority of NWRS lands and that the Secretary of the Interior will ensure the biological integrity, diversity and environmental health of refuge lands are maintained. The Improvement Act requires the Service to monitor the status and trends of fish, wildlife and plants in each refuge. A list of other laws and executive orders that may affect the CCP for Rocky Flats NWR or the Service's implementation of the CCP is provided in Appendix C.

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*The Service is the primary federal agency responsible for conserving and enhancing the nation's fish and wildlife populations and their habitats.*

## U.S. FISH & WILDLIFE SERVICE

The Service, an agency within the Department of the Interior, will manage the Rocky Flats NWR. The Service is the primary federal agency responsible for conserving and enhancing the nation's fish and wildlife populations and their habitats. Although the Service shares this responsibility with other federal, state, tribal, local and private entities, the Service has specific trust responsibilities for migratory birds, threatened and endangered species, and certain anadromous fish and marine mammals. The Service also has similar trust responsibilities for the lands and waters it administers to support the conservation and enhancement of fish and wildlife.

## NATIONAL WILDLIFE REFUGE SYSTEM

### MISSION AND GOALS

The mission of the NWRS is:

*“To administer a national network of lands and waters for the conservation, management and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”*

(National Wildlife Refuge System Improvement Act of 1997.)

Since the first refuge was established in 1903, the NWRS has grown to more than 92 million acres in size. It includes more than 500 refuges, with at least one in every state and over 3,000 Waterfowl Production Areas. The needs of wildlife and their habitats come first on refuges, in contrast to other public lands managed for multiple uses.

Administration, management and growth of the NWRS are guided by the following goals:

- To fulfill the Service's statutory duty to achieve refuge purpose(s) and further the System mission
- To conserve, restore where appropriate, and enhance all species of fish, wildlife and plants that are endangered or threatened with becoming endangered
- To perpetuate migratory bird, interjurisdictional fish, and marine mammal populations
- To conserve a diversity of fish, wildlife and plants
- To conserve and restore as appropriate representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems
- To foster understanding and instill appreciation of native fish, wildlife and plants and their conservation, by providing the public with safe, high quality and compatible wildlife-dependent public use. Such use includes hunting, fishing, wildlife observation and photography and environmental education and interpretation

### COMPATIBILITY POLICY

Lands within the NWRS are different from federal multiple-use public lands, such as National Forest System lands, because they are closed to all public uses unless specifically and legally opened. A refuge use is not allowed unless it is determined to be compatible.

Recreational uses, including all actions associated with a recreational use, refuge management economic activities, or other use by the public, are considered to be a refuge use. A compatible use is a use that, in the sound professional judgment of the Refuge Manager, will not materially interfere with or detract from the fulfillment of the mission of the NWRS or the purposes of the Refuge. Sound professional judgment is defined as a decision that is consistent with principles of fish and wildlife management and administration, available science and resources, and adherence with law. The Improvement Act also states that compatible wildlife-dependent recreation uses are legitimate and appropriate priority general public uses. Six uses, hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation, are to receive enhanced consideration in planning and management over all other general public uses of the NWRS. Whenever they are determined to be compatible, and consistent with public safety, these uses are to be provided on units of the NWRS.

Compatibility determinations are written determinations signed and dated by the Refuge Manager with concurrence of the Regional Chief, National Wildlife Refuge System, stating that a proposed or existing use of a national wildlife refuge is or is not a compatible use. Compatibility determinations are typically completed as part of the CCP or step-down management plan process. Draft compatibility determinations are open to public input and comment. Once a final compatibility determination is made by the Refuge Manager, with

Regional Chief concurrence, it is not subject to administrative appeal.

Facilities and activities associated with recreational public uses, or where there is an economic benefit associated with a use, require compatibility determinations. Refuge management activities such as invasive species control, prescribed fire, scientific monitoring and facilities for managing a refuge do not require compatibility determinations.

Four compatibility determinations for the CCP's public recreational activities can be found in Appendix B. Drafts of these compatibility determinations were available for public review and comment as part of the Draft CCP/EIS. Additional draft compatibility determinations are likely to be prepared and issued for public comment during the life of the plan in response to step-down management plans that may call for implementation of a refuge economic use (e.g. grazing), for specific research projects, or in response to third party requests for other refuge uses not addressed in this plan.

## 1.2. REFUGE SIGNIFICANCE, PURPOSE, VISION AND GOALS

### SIGNIFICANCE

In the Refuge Act, Congress found that the Rocky Flats site had several significant qualities:

- The majority of the Rocky Flats site has generally remained undisturbed since its acquisition by the federal government.
- The State of Colorado is experiencing increasing growth and development, especially in the metropolitan Denver Front Range area in the vicinity of the Rocky Flats site. That growth and development reduces the amount of open space and thereby diminishes for many metropolitan Denver communities the vistas of the striking Front Range mountain backdrop.
- The Rocky Flats site provides habitat for many wildlife species, including a number of threatened and endangered species, and is marked by the presence of rare xeric tallgrass prairie plant communities. Establishing the site as a unit of the NWRs will promote the preservation and enhancement of those resources for present and future generations.

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*Deer with fawn.*

### PURPOSE AND DIRECTION

As discussed previously, the Rocky Flats NWR was established by the Refuge Act. The Refuge Act identified four purposes of the Rocky Flats NWR:

- Restoring and preserving native ecosystems
- Providing habitat for and population management of native plants and migratory and resident wildlife
- Conserving threatened and endangered species (including species that are candidates for listing under the Endangered Species Act)
- Providing opportunities for compatible scientific research

The Refuge Act also provided some direction for managing the Refuge. The Service is to manage the Refuge to ensure that wildlife-dependent public uses and environmental education and interpretation are the priority public uses of the Refuge and to comply with all response actions.

## VISION

At the beginning of the planning process, the Service developed a vision for the Refuge. A vision describes what will be different in the future as a result of the CCP and is the essence of what the Service is trying to accomplish at the Refuge. The vision is a future-oriented statement designed to be achieved through Refuge management by the end of the 15-year CCP planning horizon. The vision for the Refuge is:

*Rocky Flats National Wildlife Refuge is a healthy expanse of grasslands, shrublands and wetlands, including rare xeric tallgrass prairie, where natural processes support a broad range of native wildlife. The Refuge provides striking mountain and prairie views and opportunities to appreciate the Refuge resources in an urbanized area through compatible wildlife-dependent public uses and education. Working with others, the Refuge conserves the unique biotic communities and sustains wildlife populations at the interface of mountains and prairies on Colorado's Front Range.*

## GOALS

The Service also developed a set of goals based on the Refuge Act and information developed during project planning. The Service established six goals for Refuge management.

**Goal 1. Wildlife and Habitat Management.** Conserve, restore and sustain biological diversity of the native flora and fauna of the mountain/prairie interface with particular consideration given to threatened and endangered species.

**Goal 2. Public Use, Education and Interpretation.** Provide visitors and students high quality recreational, educational and interpretive opportunities and foster an understanding and appreciation of the Refuge's xeric tallgrass prairie, upland shrub and wetland habitats; native wildlife; the history of the site; and the NWRS.

**Goal 3. Safety.** Conduct operations and manage public access in accordance with the final Rocky Flats' cleanup decision documents to ensure the safety of the Refuge visitors, staff and neighbors.

**Goal 4. Effective and Open Communication.** Conduct communication outreach efforts to raise public awareness about the Refuge programs, management decisions and the mission of the Service and the NWRS among visitors, students and nearby residents.

**Goal 5. Working with Others.** Foster beneficial partnerships with individuals, government agencies, non-governmental organizations, and others to promote resource conservation, compatible wildlife-related research, public use, site history and infrastructure.

**Goal 6. Refuge Operations.** Based on available funds, provide facilities and staff to fulfill the Refuge vision and purpose.

## 1.3. SELECTION AND IMPLEMENTATION OF THE CCP

The Mountain and Prairie Regional Director of the Service selected the alternative that is to be implemented as the Rocky Flats National Wildlife Refuge CCP. This decision was made in recognition of the environmental effects of each of the alternatives considered in the Final EIS, which was filed with the EPA and made available to the public. The Regional Director's selection of the CCP was disclosed in the Record of Decision (Appendix H). Implementation of the CCP will begin after the DOE transfers primary administrative jurisdiction of Rocky Flats lands to the Service and the Refuge is formally established.

## 1.4. ADJACENT LAND PROTECTION

While the CCP does not constitute a commitment for funding the protection of lands outside the Refuge's boundary, the Service may pursue habitat-protection partnerships, conservation easements and/or acquisition of lands west of the Refuge. The protection of the grassland habitat that buffers the Refuge's western boundary (east of Highway 93) is important for the health of ungulate populations that migrate from the foothills down to the prairie. The protection of wildlife corridors was raised as an issue in public scoping and was frequently reiterated in subsequent public meetings. Degradation of this habitat may deter wildlife from migrating to the Refuge and threaten existing ungulate populations that reside and/or calve within the Refuge.

The Service is currently working on a new national land conservation policy and strategic policy and growth initiative. This policy will develop a decision-making process for the growth of the NWRS and guide individual refuges in evaluating lands suitable for addition to the NWRS. The process will help ensure that lands the Service protects are of national and regional importance and meet certain nationwide standards and goals.

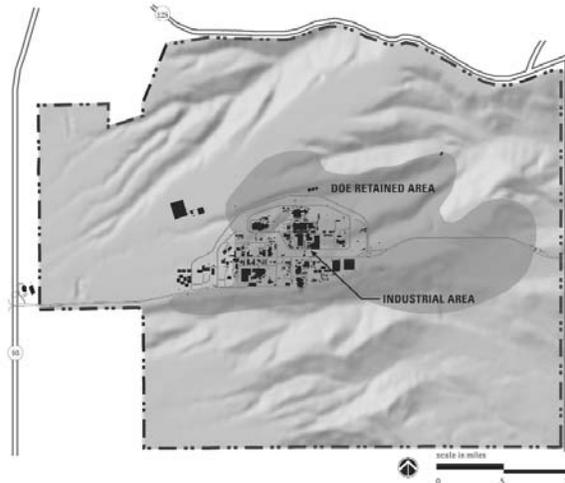
The Service’s land acquisition policy is to obtain the minimum interest necessary to satisfy refuge objectives. Conservation easements can sometimes be used in this context, when they are proven to be a cost-effective habitat protection measure. In general, conservation easements must preclude the destruction or degradation of habitat and allow refuge staff to adequately manage uses of the area for the benefit of wildlife.

**1.5. ACTIVITIES OUTSIDE THE SCOPE OF THE CCP AND EIS**

The Rocky Flats site is undergoing cleanup by the DOE with oversight of CDPHE and EPA. The Service will not accept transfer of administrative jurisdiction, or as discussed previously, assume full responsibility for managing the Refuge until the EPA has deemed the cleanup complete. It is not known exactly how long cleanup might take, or what effect cleanup activities might have on Refuge resources and uses. The DOE currently anticipates portions of the site will be transferred to the Service sometime between 2006 and 2008.

The legislation establishing Rocky Flats NWR requires that the DOE retain jurisdiction, authority, and control over portions of Rocky Flats necessary for cleanup response actions. DOE anticipates that it will retain land in and around the Industrial Area to maintain institutional

**Figure 2. Rocky Flats Industrial Area and DOE Retained Area.**



controls, and to protect cleanup facilities and monitoring systems. The DOE-retained area may be up to 1,200 acres, but the area’s final size and configuration will not be determined until the final cleanup is completed and the retained area is agreed to by the RFCA Parties. The DOE retained area tentatively identified is shown in Figure 2; it is subject to change before DOE transfers lands to the U.S. Fish and Wildlife Service.

Management alternatives for the DOE retained area were not considered in the EIS because the lands will not be part of the Refuge and the Service will not have authority to decide how those lands are managed. However, RFCA requires that the entire site, including the area retained by DOE, be cleaned up to a level that will protect human health and the environment as well as ecological receptors. Specifically, the cleanup will protect the Refuge worker and hence, the less exposed Refuge visitor. Existing concentrations of plutonium, a contaminant found in soils inside and outside the anticipated DOE retained area, are

**Table 1. Estimated Increased Cancer Risk from Exposure to Residual Contamination**

	Soil Plutonium Concentration			
	50 pCi/g	7 pCi/g	1 pCi/g	0.1 pCi/g
	Area retained by DOE		Areas to become the Refuge	
Refuge Worker*	1 in 133.3 thousand	1 in 1 million	1 in 6.7 million	1 in 66.7 million
Refuge Visitor*	1 in 227.3 thousand	1 in 1.7 million	1 in 11.1 million	1 in 125 million

Source Point estimations from the Remedial Soil Action Level Model

\*Exposure Assumptions:

- Refuge Worker – 4 hours indoors and 4 hours outside for 250 days a year for 18.7 years
- Refuge Visitor – 2.5 hours outside for 100 days a year for 6 years (child) or 24 years (adult)

very low in surface soils in the lands to be transferred to the Service. Further characterization of the future Refuge area is ongoing. Pursuant to Attachment 5 of RFCA, which was approved by EPA and CDPHE, DOE will remove surface soils with a plutonium level of 50 picocuries per gram (pCi/g) or more (Figure 3). A curie is a unit of measurement for plutonium, and a picocurie is a trillionth of a curie. Fifty pCi/g will be protective of a Refuge worker who is exposed to this level on a full-time basis at Rocky Flats. DOE anticipates retaining certain lands containing less than 50 pCi/g of plutonium for remedy-related purposes, consistent with the provisions of the Refuge Act. An example boundary for DOE retained lands is shown in Figure 2. However, no decisions have been made regarding the specific boundaries and acreage of the DOE retained lands. These decisions will be made during the RI/FS-CAD/ROD process described earlier.

The majority of land that will become the Refuge will contain less than 1 pCi/g of plutonium.

Some areas within the DOE retained area had a plutonium concentration of more than 50 pCi/g. As discussed in Chapter 3, elevated plutonium concentrations are associated with an area known as the 903 pad. As part of cleanup, DOE removed all surface soils with a plutonium concentration of more than 50 pCi/g around the 903 pad.

The Service believes that the health risk from working on or visiting Refuge lands will be low. As shown in Table 1, the estimated increased cancer risk from exposure to residual soil contamination of 7 pCi/g is 1 in 1 million for the Refuge worker, and 0.6 in 1 million (or 6 in 10 million) for the Refuge visitor. As shown in Figure 3, the majority of the public use facilities will be located in areas where the residual contamination is much lower (less than 1 pCi/g).

Lands that would require additional safety requirements or restrictions for either the refuge worker or visitor will not be transferred to the Service for the Refuge. The risk assessment efforts that resulted in the 50 pCi/g surface soil cleanup action level were inclusive of Refuge management activities such as trail building, fence construction and prescribed fire, and visitor use activities such as hiking, biking, and horseback riding. The risk assessment and cleanup protections were designed to be safe for the Refuge worker, Refuge visitor, and the greater community.

A Memorandum of Understanding (MOU) between the Department of the Interior and DOE will guide the transition of Rocky Flats to its status as a National



*The amount and type of public use emerged as a significant issue during the planning process.*

Wildlife Refuge. The Service does not intend to accept transfer of primary administrative jurisdiction for any land at Rocky Flats until the MOU is finalized. Following cleanup and closure, future agreements may provide for Service involvement in managing the wildlife and habitat resources on the retained area, under DOE supervision. Because DOE will retain administrative jurisdiction and manage the retained area, which will be surrounded by the Refuge, the Service is recommending a 4-strand, barbed-wire fence that allows wildlife movement be built around the retained area. The Service is also recommending that appropriate signs be placed near the boundary to distinguish Refuge lands from DOE lands (see Appendix E, letter to RFCA parties). Although no public access to the DOE retained area is proposed in this CCP, and the Service has recommended that the DOE retained lands be posted with signs that prohibit public entry, the cleanup levels being implemented will result in a landscape that is safe for human entry.

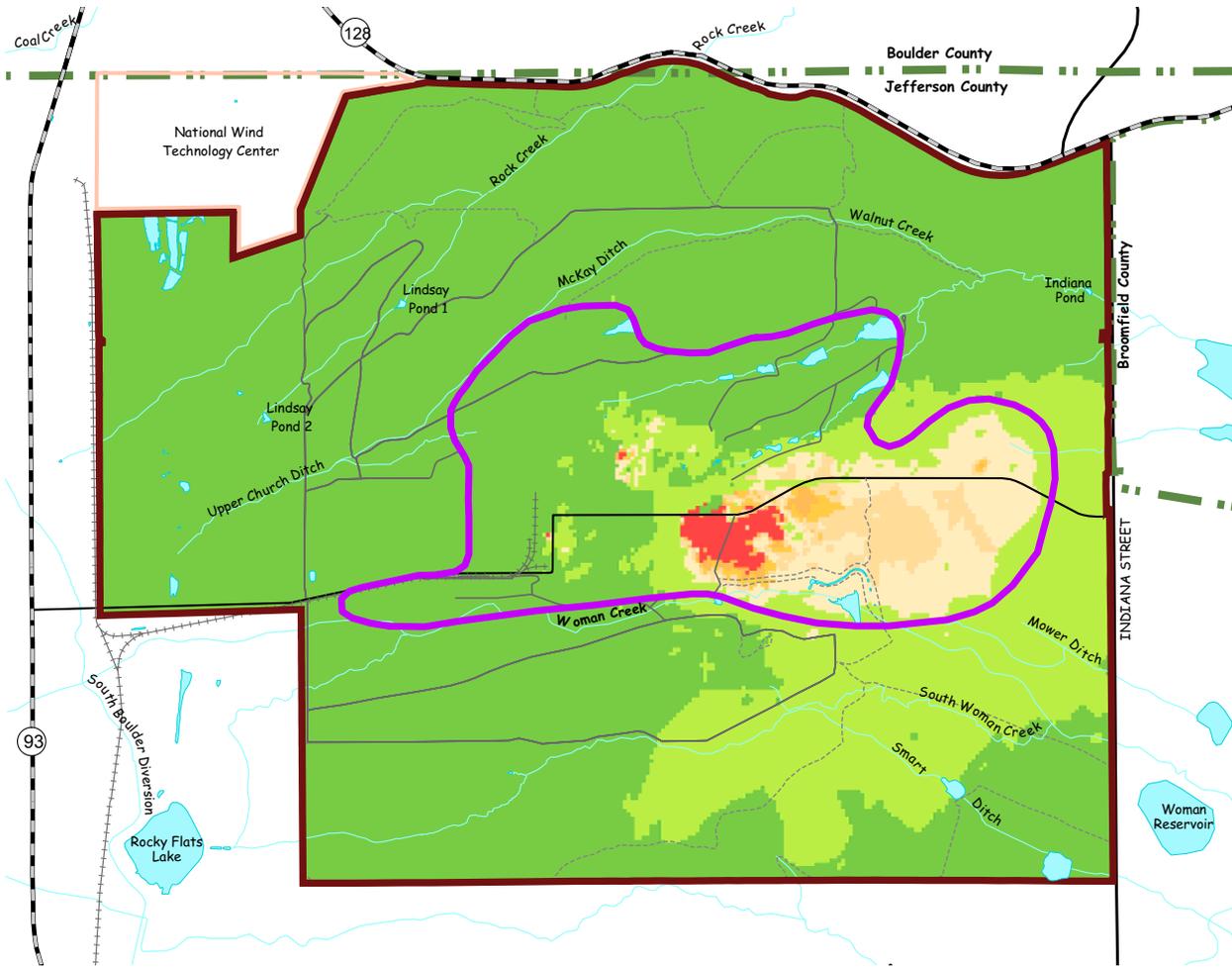
The Service will not use the land at Rocky Flats for residential or “bunkhouse” facilities during the life of this CCP. If such a use is considered in the future, the Service will obtain approval from the CDPHE and the EPA, and will notify the public during the planning process.

The EIS does not analyze different scenarios for the cleanup activities because they are outside the scope of Refuge management activities considered in the CCP. A cleaned-up site provides the baseline for analysis. Detailed information describing the remaining contamination at the site will be presented in DOE’s RI/FS Report to be published prior to EPA’s certification of completion of the cleanup. Readers interested in additional information on



# US Fish & Wildlife Service

## Rocky Flats National Wildlife Refuge Jefferson County, CO



### Pre-Cleanup Plutonium Concentrations in Surface Soils

Plutonium 239/240 (pCi/g)

- > 50 (Surface soils to be removed during cleanup)
- 7 - 50 (Areas anticipated to be retained by DOE)
- 1 - 7 (Refuge Lands)
- < 1 (Refuge Lands)
- DOE Retained Area (Subject to Change)

Data provided by U.S. Department of Energy  
(Additional characterization will occur throughout the ongoing cleanup process.)



Estimated Increased Cancer Risk from Human Exposure

	7 pCi/g	1 pCi/g	0.1 pCi/g
Refuge Worker	1 in 1 million	1 in 6.7 million	1 in 66.7 million
Refuge Visitor	1 in 1.7 million	1 in 11.1 million	1 in 125 million

Figure 3. Pre-Cleanup Plutonium Concentrations in Surface Soils

cleanup activities should contact the DOE at (303) 966-4546, the EPA at (303) 312-6251, or the Colorado Department of Public Health and Environment at (303) 692-3300.

## 1.6. FUTURE PLANNING

The CCP will be adjusted to include new and improved information as it becomes available over the course of the CCP's 15-year duration. Implementation of the CCP will be monitored and reviewed regularly during inspections and programmatic evaluations. Budget requests and annual work plans will be tied directly to the CCP. Fifteen years after the Refuge has been established, the CCP will be formally revised, following the process used on this CCP. Any substantive changes to the CCP before the 15-year period will involve a public process. However, the Refuge Manager has the authority under Title 50 CFR, to take immediate actions outside this plan as necessary to respond to emergencies and protect wildlife and public safety.

The CCP describes the desired future conditions of the Refuge and provides long-range guidance and management direction. Chapter 4 describes objectives and strategies that the Service will use to achieve the desired future conditions. During the 15-year life of this plan, the Service will prepare additional plans, called step-down management plans. A step-down management plan provides specific guidance for the Service to follow to achieve objectives or implement management strategies related to specific management topics such as

habitat, fire and public use. Step-down plans will be developed as the need arises. The preparation of new step-down plans typically will require further compliance with Service planning policies and procedures, including opportunities for public review and comment. The Service anticipates the following plans will be needed at the Refuge:

- Vegetation and Wildlife Management Plan
- Integrated Pest Management Plan
- Fire Management Plan
- Visitor Services Plan
- Health and Safety Plan
- Historic Preservation Plan

A Visitor Services Plan would be an umbrella document that would include interpretation, environmental education, hunting management and research protocols.

## 1.7. REFERENCES

U.S. Fish & Wildlife Service. 2000. National Wildlife Refuge System Administration Act as Amended by the National Wildlife Refuge System Improvement Act of 1997, Refuge Planning Policy; Notice. Federal Register 65:33891-33919. May 25.

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*The Service has recommended a barbed-wire fence to demarcate the boundary between the Refuge and DOE retained lands.*