

**CLARENCE CANNON
NATIONAL WILDLIFE REFUGE**

**HUNTING CHAPTER of
VISITOR SERVICES PLAN
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NATIONAL WILDLIFE REFUGE SYSTEM MISSION STATEMENT

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

CLARENCE CANNON NATIONAL WILDLIFE REFUGE PURPOSE STATEMENT

*The Clarence Cannon National Wildlife Refuge was created in 1964 ". . . for use as an inviolate sanctuary, or for any other management purpose, for migratory birds."
[16 U.S.C. § 715d].*

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I. Introduction

This Hunting Chapter will be part of the future Visitor Services Plan for the Clarence Cannon National Wildlife Refuge (Refuge). The Hunting Chapter identifies how the Refuge will manage public hunting opportunities on Refuge managed or acquired lands as identified in the Refuge's 2004 Comprehensive Conservation Plan (CCP) (USFWS 2004).

Totalling 3,751 acres, the Clarence Cannon National Wildlife Refuge provides a diversity of floodplain habitat for more than 200 species of migratory birds traveling the Mississippi Flyway. These and other floodplain-dependent fish and wildlife species benefit from the diversity of scrub-shrub, bottomland hardwood, backwater slough, wet meadow, moist soil managed wetland, and grassland habitats for breeding, feeding and/or resting purposes.

The abundance of wildlife present on the Refuge provides the visitor with an enriching experience whether they are simply observing the wonders of nature or participating in hunting or fishing activities.

History of Establishment: The Clarence Cannon National Wildlife Refuge was established in 1964 with funds from the purchase of migratory waterfowl stamps. The refuge was named in honor of Congressman Clarence Cannon who was born in the nearby town of Elsberry, Missouri. The area was formerly part of an agricultural levee district. All but a few hundred acres of the total 3,751 acres is encompassed by a levee. Habitats within the Mississippi River floodplain provide feeding and resting areas for over 200 species of migratory birds.

Goals: The Refuge strives to “restore function of refuge lands to conditions that existed prior to human disturbance” (Great River and Clarence Cannon National Wildlife Refuges HMP 2012). This can be as simple as allowing native vegetation to return on its own or as time intensive as managing water levels in restored wetlands to replicate the seasonal fluctuations within the floodplain of the Mississippi River. Cooperation with private, State and Federal land management agencies helps to accomplish the Refuge goals to improve and understand floodplain habitats.

Principle government partners include the Missouri Department of Conservation (MDC), the United States Army Corps of Engineers' (Corps), the Missouri Department of Natural Resources - State Parks Division (DNR-SP), United States Geological Survey (USGS) and the United States Department of Agriculture - Natural Resources Conservation Service (NRCS).

Non-government agencies the Refuge works closely with include Ducks Unlimited, The Nature Conservancy, Missouri River Bird Observatory, universities and the St. Louis Audubon Society.

Clarence Cannon NWR staff is dedicated to providing the public opportunities to enjoy wildlife oriented activities on the Refuge. The Refuge has completed the construction of an observation deck and will soon complete the installation of signs along the already existing nature trails. In addition to these visitor amenities, Refuge staff participate in workshops, special events and other outreach activities to increase public understanding of the Refuge and its diverse management activities.

II. Conformance with Statutory Authority

The Refuge staff developed this Hunting Chapter to guide hunting activities on the Refuge in a manner that allows us to fulfill the purposes for which the Refuge was established as well as provide wildlife-dependent recreation.

Guidance for authorizing public uses on National Wildlife Refuges is provided in the National Wildlife Refuge System Improvement Act (Improvement Act) of 1997 (USFWS 1997). The Improvement Act states, “compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System...through which the American public can develop an appreciation for fish and wildlife.” The Improvement Act recognizes that wildlife-dependent recreational uses, including hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation, when determined to be compatible, are a legitimate and appropriate use of the Refuge System lands. The Improvement Act states that these specific six uses should receive priority consideration in Refuge planning and management. Other uses not listed as priority public uses may be allowed if they are determined to be appropriate and compatible with the purposes for which the Refuge was established.

According to the Improvement Act, when a wildlife-dependent recreational use is determined to be a compatible use and is not inconsistent with public safety, that activity should be facilitated. The term “compatible use” is defined as a wildlife-dependent recreational use or any other use of a Refuge unit that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the Refuge. The Service’s Final Compatibility Policy (USFWS 2000) pursuant to the Improvement Act delegates the responsibility of determining compatibility to the Refuge Manager with concurrence by the Regional Office Supervisor.

Relationship to other Plans and Documents: In response to the Improvement Act, the Refuge is required to develop a Comprehensive Conservation Plan (CCP) which was completed and signed in July 2004. While the CCP provides overall management direction, more detailed “step-down” plans were to be developed to refine Refuge programs and operations.

This Hunting Plan is a step-down plan from the CCP and the future Visitor Services Plan. Writing the hunting plan prior to the Visitor Services Plan was required due to the need to address hunting as a viable management tool for the Refuge and priority public use that should continue. Hunting was determined to be a compatible use within the CCP process in which a compatibility determination on hunting uses was proposed and approved. These uses, which include big game, upland game, and migratory bird hunting, are presented in this Hunting Plan. A list and a detailed description of the hunting opportunities proposed for the Refuge are provided in this document.

Upon completion and adoption of the Hunting Plan, the Service will publish a Proposed Rule in the Federal Register that will update the hunting program on the Refuge. Following the comment period on the Proposed Rule, a determination will be made whether to implement or exclude Refuge hunting as outlined in this Hunting Plan. Subsequently, a Final Rule will be published outlining hunting on the Refuge. An internally developed annual Hunting Proposal

will be used to document how this Hunting Plan guides the implementation of the Refuge's hunting programs.

III. Statement of Objectives

To fulfill the purpose for which the Refuge was established the Service envisions that it will make significant contributions by:

- Establishing a unit within a corridor of floodplain and forest, wetlands, and native prairie along the Mississippi River between river mile 263 and 261 near Annada, MO.
- Managing diverse and abundant native fish and wildlife populations that use healthy and productive native plant communities of the Mississippi River and its environs.
- Providing the public with the opportunity to revitalize their spirits through high quality wildlife-dependent recreation such as hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation.
- Supporting a community-based effort where citizens, businesses, private conservation organizations, and local, state, and federal agencies combine their efforts to restore and protect the Mississippi River and its watershed for future generations.

A well-managed hunting program directly supports the Refuge's overall purpose and goals. Although the Refuge has had a management plan that included a hunting program since its establishment, this Hunting Plan will be modeled specifically for the Refuge providing a supportive step-down plan for the CCP.

The Refuge's hunting program objectives are as follows:

- Through revision of the Refuge Hunting Plan, examine opportunities to utilize hunting for deer on the Refuge to assist in maintaining deer densities that are suitable to sustain a viable population at levels that do not impede other management objectives.
- Expand accessible hunting opportunities to include deer hunting in designated areas on the Refuge.
- Enhance public understanding of Refuge hunting opportunities by increasing the quality of maps, signs and wording within brochures and on the Refuge Web site.
- Increase the visibility of Refuge law enforcement and hunter adherence to federal and state regulations to ensure safe, high quality, ethical hunting.

Strategies related to expanding opportunities for underserved hunter populations, enhancing public understanding of the hunting program, and ensuring high quality, ethical hunting has been successfully implemented. The Refuge continues to explore additional strategies in pursuit of its stated hunting program objective.

IV. Assessment

White-tailed deer, waterfowl, water birds, aquatic mammals, passerine, and mammalian predators are monitored on the Refuge and surrounding areas by the Service and conservation partners. Fish, amphibians, reptiles and insects also are monitored, but not as frequently.

Recent assessments of species hunted in the vicinity of the Refuge indicate that those species are not facing a general decline. For waterfowl, the annual assessments are based upon the distribution, abundance and flight corridors of migratory birds. The annual Waterfowl Population Status Report (USFWS 2010) includes the most current breeding population and production information available for waterfowl in North America and is a result of cooperative efforts by the Service, the Canadian Wildlife Service, various state and provincial conservation agencies and private conservation organizations.

The American woodcock (*Scolopax minor*) is a popular game bird throughout eastern North America. The management objective of the Service is to increase populations of woodcock to levels consistent with the demands of consumptive and non-consumptive users (USFWS 1990). The woodcock population in the Central Region returned to the 10-year average after a decline in 2008 (Cooper and Parker 2009).

The mourning dove (*Zenaida macroura*) is one of the most abundant species in urban and rural areas of North America. The annual harvest is estimated to be between 5% and 10% of the population (Otis et al. 2008). According to the Breeding Bird Survey there was a significant increase in doves heard and seen in the Central Management Unit (which includes Missouri) over a 10-year time period (1999-2008).

Upland Game including gray squirrel (*Sciurus griseus*), fox squirrel (*Sciurus niger*), pheasant (*Phasianus colchicus*), and bobwhite quail (*Colinus virginianus*) are not specifically monitored by the Missouri Department of Conservation, however, based on harvest numbers, hunter daily bag for 2010 compared to 2000 was lower for squirrel and quail, and higher for pheasants. Populations of these species fluctuate widely based on yearly habitat conditions, food availability, and weather.

Missouri's wild turkey (*Meleagris gallopavo*) population has continued to expand since the first successful reintroduction in the 1960's. Turkey hunting is allowed in the state of Missouri by permit only in both the spring and fall seasons. The estimated turkey population at the beginning of the year in 2010 was 500,000 (Missouri Department of Conservation). In the spring of 2010 38,328 birds were harvested and 8,124 birds were harvested in the fall for a total reported harvest of 46,452 turkeys in 2010 (Missouri Department of Conservation).

White-tailed deer (*Odocoileus virginianus*) are the most important big game mammal in Missouri. Deer hunting regulations in Missouri have changed a great deal since 1944, when 7,757 hunters harvested 519 bucks during a two-day buck-only season. Today there are approximately 500,000 deer hunters in Missouri harvesting up to 300,000 deer annually. Hunters harvested 275,702 deer in Missouri in 2010. The Conservation Department's deer management goal is to maintain a statewide deer population level that provides adequate

opportunities for hunters and for people who enjoy watching deer, but low enough to minimize crop/landscape damage and deer-vehicle accidents (MDC). In 2010, deer densities continued to increase throughout much of the state.

Population numbers of furbearers and small game including cottontail rabbit (*Sylvilagus floridanus*), badger (*Taxidea taxus*), bobcat (*Lynx rufus*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), red fox (*Vulpus vulpus*) and coyote (*Canis latrans*) are not specifically kept by MDC, however, based on harvest numbers, hunter daily bag for 2010 compared to 2000 was lower for rabbit, bobcat, raccoon, and coyote, and higher for opossum, red fox and gray fox. Populations of these species fluctuate widely based on yearly habitat conditions, food availability, and weather.

Other game, such as the American crow (*Corvus brachyrhynchos*), bullfrog (*Rana catesbeiana*), green frog (*Rana clamitans*), and groundhog (*Marmota monax*) are not specifically kept by MDC, however, based on harvest numbers, hunter daily bag for 2010 compared to 2000 was lower for groundhog and American crow. Populations of these species fluctuate widely based on yearly habitat conditions, food availability, and weather.

Hunting was prevalent on the private lands that eventually became the Refuge before the Service purchased those lands. Suitable habitat exists on the Refuge lands to support hunting as proposed. The viability of the game species populations proposed to be hunted is not expected to be negatively affected by hunting according to State season guidelines. In fact, the white-tailed deer population has risen substantially and is considered locally overabundant.

V. Description of Hunting Program

The Refuge supports huntable populations of migratory birds, big game and upland game, however the Refuge is not open to all wildlife oriented recreational uses as defined in the National Wildlife Refuge Improvement Act of 1997. Wildlife viewing, photography, environmental education and interpretation are the primary uses of the Refuge. Fishing and hunting activities are permitted, but are more restrictive than the Missouri regulations due to conflicts with the purposes for which the Refuge was established and/or purchase agreements of the Refuge.

Hunting Opportunities

The hunting program generally allows specific hunting activities on the Refuge. This enables the Refuge to balance species needs and other recreational uses with hunting activities.

Hunting management practices and procedures on the Refuge will open acquired lands to hunting consistent with Missouri state hunting regulations. Restrictions in seasons and game species will apply for reasons of safety, quality of experience, and conflicts with Refuge purposes.

The only game species included in the restricted hunts include white-tailed deer and only restricted hunts will apply. A restricted hunt is a hunt that is restricted to certain hunting methods and/or dates.

These restricted hunts will be primarily used to improve safety and ensure a high quality recreational experience for hunters and to better manage game species. Future Refuge land acquisition restricted hunts will not be determined under this Hunting Plan.

Hunting activities allowed on the Clarence Cannon National Wildlife Refuge includes:

- Migratory Birds
 - Closed to hunting migratory birds.
- Upland Game
 - Closed to hunting upland game.
- Big Game (Deer and Turkey)
 - Open only to special state-managed deer hunts.
 - Closed to turkey hunting

A high priority for the Refuge is to provide compatible wildlife-dependent public uses such as hunting. Providing access for youth and persons with disabilities to Refuge programs and facilities is another high priority. Accommodating individuals with disabilities typically entails granting exemptions to Refuge regulations for the purpose of enabling those persons to engage in compatible activities on the Refuge. The most common type of exemption given will be authorizations of limited duration which allow the use of motorized vehicles on existing roads and trails.

Consultation and Coordination with the State

Previous to this Hunting Plan, the Refuge's hunting program was developed in coordination with MDC regional and area managers. This coordination was accomplished through formal and informal meetings as well as the Refuge soliciting MDC comments on written hunting plans and supporting documents.

The Refuge's consultation with MDC regional and area managers for the development of this Hunting Plan dates back to a series of meetings to develop a vision for Refuge programs via the Comprehensive Conservation Plan process in 2004. Formal and informal consultation specific to the Refuge's hunting activities will continue.

The Refuge has moved forward with developing this Hunting Plan based upon earlier formal coordination with the MDC as well as the intervening informal discussions.

Consultation and coordination with MDC and others regarding its annual implementation will be a combination of formal and informal activities based upon the nature of the issues to be addressed.

Methods of Control and Enforcement

The enforcement of Refuge and state hunting regulations, trespass and other public use violations normally associated with management of a National Wildlife Refuge is the responsibility of commissioned Federal Wildlife Officers. Federal Wildlife Officers cooperate with, and are assisted by state and county police officers as well as state conservation officers. The procedures used for obtaining law enforcement assistance are based on the legal jurisdiction where incidents

occur. The Refuge regularly meets with the various state and county law enforcement agencies to develop agreements and strategies to ensure law enforcement operations are performed as safely and efficiently as possible.

Refuge Visitor Services staff manages the Refuge's outreach program and consequently routinely interact with and assist Refuge users during hunting seasons.

Funding and Staffing Requirements

The annual costs of Refuge activities to attain the Hunting Program objective is an estimated \$20,000 out of an overall Refuge operating budget of about \$800,000. These costs include staff (30 days, \$10,000) and operating expenses (\$10,000) for Refuge law enforcement and hunter assistance during the hunting season. This estimate also includes Refuge staff activities associated with planning and preparing for (e.g., special signage and access) and monitoring hunting activities.

Additional expenses include boundary posting and other signage, maintenance of parking lots and gates, brochures, regulatory signs and other hunting specific activities. An increase in law enforcement patrols including vehicle costs and overtime might also be necessary. These additional costs, estimated at \$2,000, would be accrued if officers from other sources are needed to assist with the hunting program.

VI. Measures Taken to Avoid Conflicts with other Management Activities

Biological Conflicts

The Refuge avoids conflict related to biological resources by adopting the "wildlife first" principle explicitly stated in the National Wildlife Refuge Improvement Act of 1997. Staff monitors species population trends to ensure that target species can be hunted on the Refuge without adverse effect on the species. These monitoring activities include direct observation of populations, consultation with State and Service species specialists, and review of current species survey information and research. In addition, the Refuge limits or excludes hunting activities on the Refuge.

Public Use Conflicts

In an effort to avoid conflicts with non-hunting priority recreational uses, as outlined in the Improvement Act, and for safety reasons, the Refuge enforces a series of Refuge-specific hunting regulations.

The Refuge is closed to all hunting, with the exception of the managed deer hunts, due to the primary purpose of the Refuge, an inviolate sanctuary for migratory birds. In response to the presence of large migrating populations of birds, the refuge has become a prime birding area for the public, which poses additional concerns for public safety during managed hunts.

Administrative Conflicts

Refuge management activities can be accomplished without conflict with hunting activities through the use of administratively closed areas, timing of hunts, and methods of hunt. The most potential for hunting to conflict with management activities occurs during shallow water habitat

work which involves the operation and maintenance of pumps, as well as the installation and removal of stop-logs throughout the spring and fall migrations at the Refuge. This activity requires the presence of Refuge personnel throughout the unit. Restricting managed hunts to a limited number of weekend days eliminates substantial conflicts with Refuge operations.

VII. Conduct of the Hunt

Hunting Regulations

All hunting activity is subject to Refuge-specific regulations (as noted below) in addition to State regulations. When Refuge-specific regulations and State regulations differ, the more restrictive regulations will apply.

Regulations pertaining to all National Wildlife Refuge System Lands

Requirements for hunting on units of the National Wildlife Refuge System are found in Title 50 of the Code of Federal Regulations, Chapter 1, Subchapter C, Section 32.2. They state:

The following provisions shall apply to each person while engaged in public hunting on areas of the National Wildlife Refuge System:

- (a) Each person shall secure and possess the required State license.*
- (b) Each person 16 years of age and older shall secure and possess a Migratory Bird Hunting Stamp while hunting migratory waterfowl.*
- (c) Each person shall comply with the applicable provisions of Federal law and regulations including this subchapter and the current Federal Migratory Bird Regulations.*
- (d) Each person shall comply with the applicable provisions of the laws and regulations of the State wherein any area is located unless further restricted by Federal law or regulation.*
- (e) Each person shall comply with the terms and conditions authorizing access or use of wildlife refuges, including the terms and conditions under which hunting permits are issued.*
- (f) Each person must comply with the provisions of any refuge-specific regulations governing hunting on the wildlife refuge area. Regulations, special conditions, and maps of the hunting areas for a particular wildlife refuge are available at that area's headquarters. In addition, refuge-specific hunting regulations for migratory game bird, upland game, and big game hunting appear in §§32.20 through 32.72.*
- (g) The use of any drug on any arrow for bow hunting on national wildlife refuges is prohibited. Archers may not have arrows employing such drugs in their possession on any national wildlife refuge.*
- (h) The unauthorized distribution of bait and the hunting over bait is prohibited on wildlife refuge areas. (Baiting is authorized in accordance with State regulations on national wildlife refuges in Alaska).*
- (i) The use of nails, wire, screws or bolts to attach a stand to a tree, or hunting from a tree into which a metal object has been driven to support a hunter is prohibited on wildlife refuge areas.*
- (j) The use or possession of alcoholic beverages while hunting is prohibited.*

(k) You may possess only approved nontoxic shot while in the field, which we identify in 50 CFR 20.21(j), while on Waterfowl Production Areas, or on certain other areas of the National Wildlife Refuge System as delineated on maps, leaflets and/or signs, available at each refuge headquarters or posted at each refuge, or as stated in refuge-specific regulations. Where we allow turkey and deer hunting, you may use slugs and shot containing lead to hunt these species unless prohibited by refuge-specific regulations and/or State law.

The regulations, as they are published in the Code of Federal Regulations (CFR), are the official notification to the public. Copies of the CFR can be found in libraries and online.

Regulations Specific to Clarence Cannon National Wildlife Refuge

The hunting regulations specific to the Clarence Cannon National Wildlife Refuge are found at 50 CFR 32.44, Missouri: **Clarence Cannon National Wildlife Refuge.**

A. Migratory Game Bird Hunting. [Reserved]

B. Upland Game Hunting. [Reserved]

C. Big Game Hunting. We allow hunting of white-tailed deer on designated areas of the refuge in accordance with State regulations subject to the following conditions:

- 1. We only allow hunting during the special State-designated Managed Deer Hunts.*
- 2. We require hunters to check-in and out of the refuge each day.*
- 3. We prohibit shooting at deer that are on any portion of the main perimeter levee.*
- 4. We prohibit the construction or use of permanent blinds, stands, platforms, or scaffolds (see §27.92 of this chapter).*
- 5. Hunters must remove all boats, blinds, blind materials, stands, platforms, scaffolds, and other hunting equipment (see §§ 27.93 and 27.94 of this chapter) from the refuge at the end of each day's hunt.*
- 6. We close the area south of Bryants Creek to deer hunting.*
- 7. We require hunters to check in all harvested deer with refuge personnel prior to leaving the refuge.*
- 8. You must park all vehicles in designated parking areas (see § 27.31 of this chapter).*

D. Sport Fishing. We allow fishing in accordance with State regulations subject to the following conditions:

- 1. We prohibit the taking of turtle and frog (see §27.21 of this chapter).*
- 2. We allow fishing from a boat only on areas of the refuge outside of the main perimeter levee. We allow bank fishing only during managed refuge special events..*
- 3. Anglers must remove all boats and fishing equipment at the end of each day's fishing activity (see § 27.92 of this chapter).*

State hunting regulations applicable to the Refuge, such as seasons, bag limits, and general methods of take are published annually in the state hunting and trapping regulations. In addition, a synopsis of Refuge-specific regulations is made available to the public in the Refuge's hunting brochure. Copies of the hunting brochure are available at the Refuge's Visitor Center and on the Refuge internet website.

Managed Hunts

The Refuge is closed to the public with the exception of state-managed deer hunts. The managed hunts are an activity to achieve deer management goals for the benefit of the resources and for the health of the population. All managed hunts require Refuge specific authorization and are conducted within the framework of the state seasons and regulations for the species proposed to be hunted.

Anticipated Public Reaction to the Hunt

Hunting enjoys broad support within the state of Missouri. Potential user conflicts between hunting and non-hunting visitors are expected to be minimal as there is little overlap between the preferred times and places of use between hunters and other user groups. In certain areas safety concerns and potential conflicts have been addressed by restricting hunting opportunities to specific dates.

Hunter Application and Registration

For managed hunting activities, any hunter eligible under Missouri law may apply for any Refuge hunt in which they are qualified. Depending on the specified hunt, applicants may be required to send applications directly to the Refuge, or the State Agency managing the specific hunt. As part of the Refuge application/registration procedure, any application sent directly to the Refuge must contain forms approved by the Office of Management and Budget.

Hunter Selection

Applications for qualified hunters are accepted during a specific, advertised application period. Once the application period has closed, all qualified applicants are entered into a random drawing for selection. Preference points may or may not be applied to unsuccessful applicants to increase odds of being drawn for future hunts.

Announcing and Publicizing Hunts

All hunts are advertised through various forms of media including print, social, and internet.

Hunting Orientation and Safety

The Refuge requires each hunter selected for the managed hunts to attend an orientation meeting prior to the hunt. The State of Missouri has established hunter education and safety training requirements that have been in effect for many years.

Additional hunter orientation to Refuge lands and areas open to hunting are provided directly on the Refuge through the use of signs, brochures, flyers, maps and trail guides. Outlets off the Refuge that are a source of information include MDC offices, tourism offices and the Internet.

Entry and Access Procedures

Entry and access during the managed hunt is restricted. Hunters are required to check-in and out each day.

Hunter Requirements

The Refuge imposes special requirements for those participating in managed hunts on the Refuge. Eligibility and other requirements for participating in these hunts are described earlier

in the document. Hunters who are eligible to hunt under Missouri law are allowed to participate in the managed hunts for which they are successfully drawn on the Refuge.

The Refuge requires hunters to report their harvest during each managed hunt. Service policies and procedures and Office of Management and Budget requirements are adhered to.

Hunters may only use methods of harvest approved for the specific hunt for which they are participating.

It is unlawful to hunt from a permanent stand on the Refuge. Attaching a stand or steps to a tree by use of screws, bolts nails or other implements driven into the tree is prohibited. All personal property must be removed from the Refuge at the end of each day. This includes blinds, decoys and other equipment.

VIII. References

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Appendix A – Unit Maps

