

South Dakota Game, Fish and Parks

2023-2025

Habitat Stamp Plan



SOUTH DAKOTA GAME, FISH AND PARKS

HABITAT STAMP

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Special thanks to our project partners



Agency Mission

We serve and connect people and families to the outdoors through effective management of our state's parks, fisheries, and wildlife resources.

Agency Vision

We will conserve our state's outdoor heritage to enhance the quality of life for current and future generations.

Executive Summary

The South Dakota Department of Game, Fish and Parks (SDGFP) is charged with managing South Dakota's public lands and natural resources for current and future generations. South Dakota is home to abundant wildlife and recreational opportunities and one of the primary goals of SDGFP is to optimize the quantity and quality of sustainable hunting, fishing, camping, trapping and other outdoor recreational opportunities. As such, one of the highest priorities for SDGFP is habitat and access. To meet fish and wildlife resource stewardship responsibilities and provide opportunities for the public to use and enjoy these resources, SDGFP strives to continually improve habitat and access management of public and private lands. This is accomplished by expanding and creating new partnerships with landowners and conservation groups and remaining focused on improving existing aquatic and terrestrial habitat on private and public lands while seeking additional habitat acres. Furthermore, it is enhanced by providing additional public access to privately owned lands while continuously improving access to existing public lands. With the establishment of the Habitat Stamp, a new revenue source was created to help accomplish this. This plan is meant to guide actions for the next three years as to how those funds are expended to accomplish projects that benefit both the wildlife and users of South Dakota.

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Introduction:

During the 2020 South Dakota Legislative Session, Senate Bill 75 was passed to create a Habitat Stamp that would add an annual fee to all South Dakota Game, Fish and Parks (SDGFP) license buyers to be used solely for terrestrial and aquatic habitat and access projects in South Dakota (SDCL 41-6-85; Appendix A). As of July 1, 2020, a Habitat Stamp is required for anyone 18 years of age or older when purchasing or applying for a hunting, fishing or furbearer license in South Dakota. The annual fee for the Habitat Stamp is \$10 for residents and \$25 for nonresidents. However, a purchase of the Habitat Stamp is not required for the one-day hunting or fishing license, youth hunting license, private shooting preserve license, hunt for habitat application fee, or landowner hunting license. Habitat Stamp funds associated with fishing license sales will fund aquatic habitat projects on public waters across South Dakota. Habitat stamp funds associated with hunting and furbearer license sales will fund wildlife habitat developments and public access improvements on SDGFP lands across South Dakota. If someone purchases a combination license, funds will be split evenly between terrestrial and aquatic habitat. The Habitat Stamp purchase is associated with the first license purchased by an individual and is not necessary for subsequent license purchases.

Approximately, \$5 million are generated annually from the sales of Habitat Stamps. While it may vary interannually, the split between aquatic and terrestrial has been around 50/50. The use of these funds is limited to projects that directly benefit habitat and access and cannot be used for purchase of property, equipment or employee salary. A detailed report of expenditures is provided annually to the Government Operations and Audit Committee (Appendix B). Additionally, plans for expenditures have been identified in future calendar years (Appendix C).

Aquatic Habitat Stamp funds are estimated to be approximately \$2.5 million annually. These will be utilized for projects in three categories:

1. Large-scale restoration– Significantly degraded waters with available partnerships and community backing will be considered for full restoration. These projects will be extensive consisting of watershed and in-lake work with the goal being improved water quality and more efficient habitat maintenance. The scoping phase for these projects will be lengthy with considerable funds expended to create a “road map” to project completion. Private engineering firms familiar with restoration projects will be utilized to help map out the goals of the project along with individual activities that will help reach those goals.
2. Small-scale habitat and access projects– Designed to improve water quality, access, fish habitat, etc. These projects will include activities such as dredging, aeration, stream restoration, artificial structure placement and access development (e.g., ADA, shore fishing, urban and community).
3. Dam infrastructure improvements– On an annual basis, a private engineering firm will be hired to inventory maintenance issues on a list of dams from one Fish Management Area within the state. The area inventoried will rotate on an annual basis. A report will be generated with individual contracts issued the following year to address maintenance issues derived from the previous year’s inventory. This cycle will be repeated annually.

Terrestrial Habitat Stamp funds are estimated to be approximately \$2.5 to \$3 million annually. These will be utilized for projects in the following categories:

1. Habitat improvements on SDGFP owned property – This category consists of projects on land owned by SDGFP and includes native grass seedings, pollinator plantings, tree plantings, food plots, grass and forest enhancement, and grazing infrastructure.
2. Access improvements for SDGFP owned property – This group of projects will provide new or improve access for users on SDGFP owned property. Projects of this nature include waterfowl access trails, road and trail improvement on and to get to these lands, primitive waterfowl boat launches, handicap access trails and access points, additional parking areas and other various access projects.
3. Opening private property up for public hunting and fishing access – These will consist of private lands being enrolled in public access programs for hunting and fishing while promoting sound habitat management. Programs will include the James River Watershed and Big Sioux River Conservation Reserve Enhancement Programs (CREP), which open lands up for hunting and fishing. The Walk-In Area (WIA) program will also be part of this category and opens private land up for public hunting.

Habitat and access staffing:

Having staff dedicated to habitat and access is nothing new to SDGFP. However, with the addition of these funds, an increased emphasis was made by the Wildlife Division to staff the program at a level where revenue from the sale of Habitat Stamps could be efficiently and effectively translated into projects across the state that benefited wildlife habitat and user access.

Aquatics:

South Dakota has had an aquatic habitat program since the early 1990's, although some habitat work was done in the Black Hills area in the 1970's and 1980's focusing on stream work for trout species. The first dedicated Aquatic Habitat and Access Biologist (AHAB) was stationed in Rapid City in 1991 and focused mainly on streams in the Black Hills of South Dakota. Project focus was riparian zone protection, structure repair, sediment removal, aeration systems and creation of instream cover. The position eventually developed into a statewide AHAB position, with most work focusing in the Black Hills area.

In 2010, an AHAB was added in the Webster area to work on habitat and access projects in the eastern half of the state. Due to staffing changes in 2013, the Webster AHAB position was moved to the Watertown office. The initial focus was to create access to lakes and administer shoreline habitat projects. Due to increased needs, an AHAB position was added in Sioux Falls in 2017 to cover the southeastern portion of the state.

As the focus on habitat and access work increased, a senior aquatic habitat and access biologist position was added in the spring of 2018. The position focuses on degraded aquatic habitat and

access in the central region of the state and serves as the state coordinator for developing/administering a Statewide Aquatic Habitat Program. With the addition of the funds generated by the sale of Habitat Stamps, it became apparent that additional staff were needed to help administer these funds. In response to this, the Aquatics Section reprioritized available full-time equivalents (FTE) to address these needs. An AHAB position was created in Ft. Pierre, as well as a second AHAB position in Rapid City and a Resource AHAB was added in Watertown.

Terrestrial:

Each of the four administrative regions across the state have public lands habitat staff that are comprised of a program manager, resource biologists, conservation foreman, and conservation technicians. Annually, regions will also hire seasonal staff along with interns to assist with projects through the spring, summer and fall. These employees carryout the development and management of habitat on Game Production Areas (GPA). Historically, there have been few changes in the number of FTE for habitat work on GPAs. However, approximately a decade ago SDGFP developed an agreement with Habitat Forever to start bringing on Habitat Specialist Teams. Habitat Forever is a subsidiary of Pheasants Forever who provide for hire full-service habitat assistance teams to private landowners and state agencies in several states across the country. These teams are made up of one full-time staff and one seasonal staff that are employees of Habitat Forever. In South Dakota their primary duty is to work directly with regional SDGFP habitat staff to develop, improve and manage GPAs. These teams were originally stationed around the state with one in each region. During the past year SDGFP has worked with Habitat Forever to increase the number of teams from four to eight. Each of the four regions now have two teams working on GPAs. These eight teams are funded with SDGFP dollars. The addition of these teams has significantly increased the number of habitat projects that can be completed annually.

Outside of management of publicly owned lands SDGFP has increased the number of habitat biologists working with private landowners from four to twelve. Each region now has three Private Lands Habitat Biologists who work on habitat projects on private land but also spend a great deal of time working on hunting access. These staff work with SDGFP CREP in the James River and Big Sioux River watersheds, they also promote and enroll land into the Walk-In Area and Controlled Hunter Access Program. These additional staff will continue to enroll private land into public hunting access across the state creating more opportunities for hunters.

Partner biologists:

GFP has partnered with several non-government organizations (NGOs) to support biologists within their organizations to work on private land habitat and access programs in South Dakota. Some of these include Pheasants Forever, National Wild Turkey Federation, Ducks Unlimited, Bird Conservancy of the Rockies, American Bird Conservancy, along with others. In most of these cases, SDGFP is providing match dollars that the organization uses to acquire additional federal grant dollars to support the position. These positions collaborate with SDGFP staff to meet with landowners and enroll new lands in habitat and access programs across the state.

Habitat and access project types:

South Dakota Game, Fish and Parks owned property:

Projects terrestrial in nature will take place on or as part of access to GPAs, Water Access Areas (WAA), and State Parks and Recreation Areas. These properties are owned, operated, and managed by the SDGFP (Figure 1). Property of this nature is located across the state. Although smaller in size, GPAs and WAAs are more abundant east of the Missouri River creating opportunities for a greater number of projects in that part of the state. Projects will be considered on United States Forest Service property, School and Public Lands, Waterfowl Production Areas, and other publicly accessible properties across the state where public hunting is allowed and when the jurisdictional agency and SDGFP mutually agree on a project.

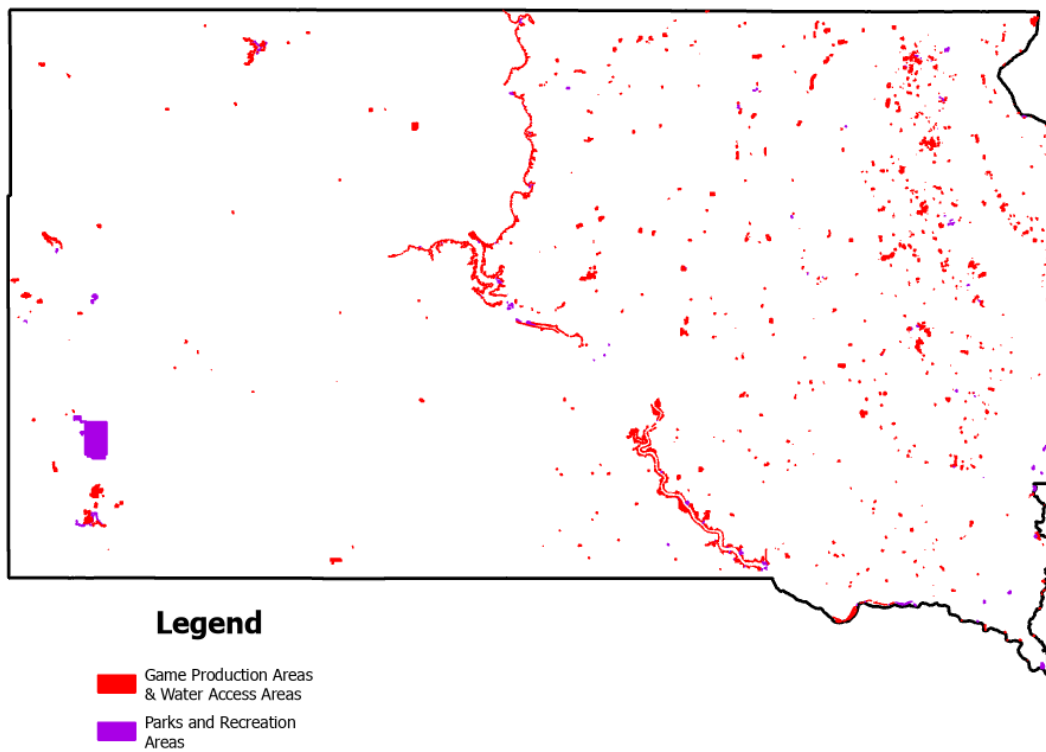


Figure 1. Showing distribution of South Dakota Game, Fish and Parks owned property.

Private property:

Access to private owned property for hunting and fishing will take place through SDGFP access programs. These programs include the James River Watershed CREP, Big Sioux Watershed CREP, and WIA program. These properties remain owned and operated by the landowner and Habitat Stamp funds will simply be used as payment to lease these properties for public hunting and fishing access. All these programs are voluntary in nature.

Public waters:

Impoundments (man-made lakes):

Impoundments throughout South Dakota are reaching or have already surpassed their useful life expectancy. Most of these structures were constructed during the Federal Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC) programs during the 1920's through the 1940's. SDGFP owns more than 80 impoundments and has an interest in approximately 90 additional that are owned by South Dakota School and Public Lands. Several of these impoundments are suffering from failing infrastructure such as control structures, spillways or the dam itself. These impoundments have high levels of sediment loading and in turn excessive nutrient loading that leads to algae blooms and low dissolved oxygen levels, during both summer and winter. Although many impoundments are relatively small, some of them are highly developed such as Richmond and Mina Lakes in the northeast or Lake Mitchell in the southeast. Studies have also shown that small impoundments play a significant role in people's quality of life, even in remote locations. Many of these impoundments are "aging-out" and are no longer considered productive. In situations like this, steps to mitigate reservoir aging can include dredging, aeration and placement of fish habitat structures.

Natural lakes:

Most of the natural lakes within South Dakota are in the eastern half of the state. Many of the larger natural lakes in the area are highly developed. These are destination lakes for many people, both residents and non-residents. Due to development, many of these lakes have lost their functioning shoreline habitat through conversion of native plant materials to highly manicured and landscaped yards. Examples of natural lakes with high percentages of development would include Lake Kampeska, Lake Poinsett, Pickerel Lake, and Lake Madison; to a lesser degree: Enemy Swim Lake, Roy Lake, Blue Dog Lake and Pelican Lake. With many of the larger natural lakes having limited land available for future development, we are now seeing this development trend on smaller, more marginal bodies of water. Shoreline development expedites the degradation of the water quality through erosion and excessive nutrients. To mitigate these factors, shoreline stabilization projects and planting of native vegetation are useful tools.

Rivers and streams:

Rivers and streams in South Dakota are very diverse. Western South Dakota rivers make up 7 main drainages that are tributaries for the Missouri River from the west. These tributaries and the small rivers, streams, and intermittent streams that carve out the rugged terrain of the high plains are the basis for most of the aquatic habitat in western South Dakota.

Most of the current work on rivers and streams in South Dakota has been focused out in the Black Hills area. The Black Hills area is defined by numerous narrow valleys, high plateaus, and well-defined drainages. A lot of the streams in the Black Hills are highly modified with the construction of numerous small dams by the Civilian Conservation Corps in the 1930's and

1940's. They still provide excellent fisheries but are now faced with sediment, vegetation, structure, and stream warming issues downstream of the dams. Other issues facing streams is pollution, excessive nutrient loading, and loss of habitat (especially around urban areas).

Central South Dakota is dominated by the Missouri River, which is the longest river system in North America and the third largest of any river in North America. The Missouri River is the most altered aquatic management area in South Dakota consisting of four major dams that have severely altered the form and function of the river and the associated aquatic species assemblages. Stretches of free-flowing river only exist below Fort Randall Dam and Gavin's Point Dam.

Eastern South Dakota rivers are defined by the most recent glacial event which left rolling plains and potholes. Three major aquatic ecosystems are the James, Vermillion, and Big Sioux River drainages with their associated tributary creeks make up the bulk of the aquatic habitat found in eastern South Dakota.

Terrestrial projects on publicly owned property:

There are several types of terrestrial projects that will be funded with Habitat Stamp revenue. However, the vast majority can be grouped into the following categories.

Native grass and pollinator plantings

Grassland habitats are a critical on the landscape in South Dakota for many wildlife species. This habitat provides nesting cover important for the reproduction of pheasants, grouse, waterfowl, turkeys, and many other upland nesting bird species. This type of project can have one of the greatest impacts on production of wildlife as well as providing quality cover for users to hunt and harvest game.

In general, this type of project will consist of converting unproductive old Smooth brome and Kentucky bluegrass fields into diverse stands of native grasses and forbs. Projects of this nature usually required one to three years of site preparation time and one to two years for establishment once seed is planted. Seed mixes in most cases will be a diverse mixture of 40 or more species of native grasses and forbs. In some locations pollinator plantings will be completed that contain relatively few grass species and are dominated by flowering forbs that will bloom throughout the growing season. These pollinator plots serve as brood rearing habitat for species, such as pheasants, whose young require an abundance of insects as a food source. This type of project will be completed by SDGFP staff, and through contracts with conservation districts and private land management companies.

Woody habitat plantings

Woody cover and shelterbelts play an important role in South Dakota for wildlife, especially during severe winters. Like grassland, woody cover provides habitat for a broad range of species. This habitat provides wildlife cover, food, bedding and fawning area and travel corridors among other things. This type of project involves a year of site preparation followed

by planting. Once trees are planted establishment takes approximately three to five years before the planting can be self-sustained. Establishment methods include weed barrier fabric, tillage, mowing, and spraying in-between rows and trees to minimize competition. These plantings are a minimum of eight rows wide, and many times ten or more. A diverse mix of tree and shrub species will be used with consideration given to those that produce fruit, seeds, and nuts valuable to wildlife. Species with short maximum height will be placed on the outside rows with gradual increases in species height to the center of the shelterbelt. This design provides the best cover and protection for wildlife species.

This type of project will be completed by SDGFP staff, and through contracts with conservation districts and private land management companies.

Food plots

Food sources for wildlife can have an impact on overall body condition and reproduction. Although there are many food sources found on the landscape, supplementing with food plots in strategic places can be beneficial. Food plots are typically located in protected areas near shelterbelts and other good cover. This setup reduces risks to wildlife and the travel distance between food and cover.

Food plots funded with Habitat Stamp revenue will include corn, sorghum, soybeans, sunflowers, small grain, and many other upland game and deer mixes. These plots will vary in size from as small as 1 acre up to 10 or more depending on the location and other factors. Beyond the benefit to wildlife many hunters seek out food plots as they tend to concentrate game and increase hunter success. These plantings are annual in nature and are replanted year after year. Using Habitat Stamp funds for this type of project will be primarily done under a contract with a local agricultural producer or land management company.

Grassland and forest enhancement (i.e., undesirable woody species removal)

Undesirable woody species have a significant impact on grassland and forest ecosystems. In grassland habitats, species such as Eastern Red Cedar, Green Ash, Elm species, and Buckthorn to list a few will self-seed and invade. As woody species continue to grow the grassland habitat availability required for upland nesting birds is reduced thus reducing their reproduction. Some grassland bird species will avoid grasslands with visual obstructions woody species create. Habitat stamp funding will be used to hire contractors to remove woody species from grasslands. Retaining these diverse upland grassland habitats will greatly benefit wildlife species and game species available to hunters.

Forests can be enhanced by removing undesirable and invasive woody species that tend to dominate and become monocultures. Examples of this may include removing invasive buckthorn from an understory allowing other native shrub and tree species to grow and regenerate. Another example would be the removal of pines or cedars from a forest understory to reduce competition for a regenerating young oak stand. These young, desired tree species will be the forest of the future that wildlife is dependent upon. Additionally, a diverse understory provides browse important for ungulates and other species.

This type of project will usually involve a cut, stack, and burn or a grind-mulch in place method. In most cases it will require forestry equipment, however some handwork may also be done. Herbicide treatments may also be required to keep undesirables from growing back. These types of projects will be completed by hiring a contractor with required equipment to complete the work.

Access roads and trail improvement

With over 700 GPAs scattered across the state and various other publicly owned property retaining good access routes to all areas is important to users. Some roads and trails are requiring improvements to open them back up for vehicle access to these public areas. Funds will be used for culverts, reshaping, and graveling roads and trails. In some instances, a new road or trail will be created where no road or trail historically existed. In these cases, this new road or trail will create access to a property the public previously maybe had no or limited access. With both a road improvement or development, SDGFP will work with and complete an authorized agreement with the jurisdictional owner (State, County, Township) of the road. This however will be unnecessary if the road or trail is located on property owned by SDGFP. These types of projects will usually require up to a year of preparation to meet with local entities, engineers, and contractors to develop a final project scope and plan. Most of these projects will be completed by local contractors and coordinated by SDGFP staff.

Waterfowl access trails and ramps

Waterfowl hunting can include a fair amount of equipment such as decoys, small boats, etc. The effort to get these items out onto a small wetland or a body of water can be demanding. Habitat stamp funding will be used to install trails and small rock boat ramps to improve and increase opportunities to get on the water with waterfowl hunting gear. These trails will allow vehicles to drive out onto the Game Production Area to drop decoys off near water or launch small boats. In some cases, it will involve improving a trail that already exists or adding a rock ramp at the end of a vehicle trail for launching boats.

These projects can vary in size and can be completed by SDGFP staff but will also be contracted out. SDGFP will partner to install these types of projects on federal Waterfowl Production Areas and other property open to the public that is not owned by SDGFP when opportunities exist.

Grassland management infrastructure

Healthy grasslands are more productive for wildlife and improve opportunities for hunters to harvest game. Managing grasslands to keep them healthy, diverse, and productive can be completed in several ways however grazing is one of the best tools managers have. Grazing is commonly used on SDGFP property with a prescription that will achieve desired goals and objectives. These typically include reducing invasive cool season grasses, rejuvenating plant vigor, reducing duff, recycling nutrients, promoting native species, diversifying plant community and many others. Grazing infrastructure is needed to complete this management practice. Habitat stamp funding will provide livestock watering resources and cross fencing to develop

paddocks to concentrate livestock in desired locations. Watering structures will also provide water resources for wildlife. Installing this infrastructure will allow managers to develop a management plan rotating livestock around in future years to enhance all grassland on the property.

SDGFP staff will work with contractors to install this infrastructure and then with local ranchers to implement a grazing plan to improve habitat.

Access projects on private land for public hunting and fishing access:

James River Watershed CREP

The South Dakota James River Watershed CREP Project was started October 23, 2009. The project is a partnership between the United States Department of Agriculture's (USDA) Farm Service Agency and SDGFP. This voluntary program allows landowners within the watershed to enroll in the program under a 10 or 15-year agreement. Following enrollment land is seeded down primarily to native grasses and forbs. The landowner will receive annual payments from the USDA on a soil based rental rate and other practice incentives. In addition to these annual payments, SDGFP provides the landowner annual payments that are equal to 31% of the base soil rental rate. This SDGFP incentive payment opens the property for public hunting and fishing. The acre cap for this CREP project is 100,000 acres. Habitat Stamp dollars will be used to provide the SDGFP 31% on the approximately 25,000 acres that remain to be enrolled to reach the cap. This watershed project is located in east central South Dakota and includes Aurora, Beadle, Bon Homme, Brown, Clark, Davison, Day, Douglas, Edmunds, Faulk, Hand, Hanson, Hutchinson, Hyde, Jerauld, Kingsbury, McCook, McPherson, Marshall, Miner, Potter, Roberts, Sanborn, Spink, and Yankton counties. At full enrollment this project creates 100,000 acres of perennial habitat open to the public for hunting and fishing. It also improves water quality, reduces soil erosion, enhances wildlife habitat, creates nesting habitat for pheasants and ducks, as well supports big game, pollinators, songbirds, and other non-game species.

Big Sioux River Watershed CREP

The South Dakota Big Sioux River Watershed CREP Project got underway in November 2022. Modeled after the James River Watershed CREP the guidelines remain the same however SDGFP will provide annual incentive payments of 34% of the base soil rental rate. This cost will be funded by habitat stamp dollars. This watershed CREP has an acre cap of 25,000 acres located in eastern South Dakota. The watershed includes all or parts of Brookings, Clark, Clay, Codington, Day, Deuel, Grant, Hamlin, Kingsbury, Lake, Lincoln, Marshall, McCook, Minnehaha, Moody, Roberts, Turner, and Union counties. Habitat Stamp funds used to assist in enrolling acres into this program will create 25,000 acres of perennial habitat. These acres will be open to the public for hunting and fishing. This CREP watershed is in a portion of the state that is densely populated and in need of more places for users to recreate. As with the James River Watershed CREP, this watershed project will also have abundant positive environmental impacts on the landscape and waters in the area.

Walk-in Area program

The WIA program was initiated in 1988 and has been a very successful program ever since. This voluntary program allows landowners to enroll their lands with quality habitat and hunting opportunities into the program. Enrollment into this program opens the land to public hunting in exchange for an annual lease payment provided by SDGFP to the landowner. Annual lease payments range from \$1 to \$15 per acre. In 2022 approximately 1.3 million acres were enrolled in the program and open to public hunting. In an effort to enroll tracts for multiple years SDGFP has been providing a signing bonus. This bonus can be up to \$10 per acre per the number of years of the contract and is paid upfront. In the southwestern part of South Dakota this bonus payment can be up to \$5/acre/year enrolled. Bonus money is only eligible on multiyear contracts meaning two or more and only on permanent habitat that is undisturbed (not hayed, grazed, burned, etc.) or lands that offer priority big game hunting opportunity. If the cooperators backs out of the contract prior to its expiration, they must repay the entire signing bonus to SDGFP.

Historically, SDGFP has sought out the Voluntary Public Access and Habitat Incentive Program Grant (VPA-HIP) and used awarded funds to cover the cost of signing bonuses made on WIA contracts. South Dakota Game, Fish and Parks will continue to seek out these federal grant funds in the future. When grant dollars are not available SDGFP will use Habitat Stamp funds to cover the cost of WIA contract signing bonuses. This will allow SDGFP to offer consistent program options to all interested landowners regardless of availability of grant dollars.

Private lands habitat program access incentives

SDGFP offers cost share on a suite of various habitat practices on private lands. The private lands habitat program offers cost share for food plots, tree plantings, grass seeding, wetland restoration, cross fencing, water infrastructure for rotational grazing, among other things. This cost share varies between practices however SDGFP is offering a higher cost share rate to those landowners who enroll the property the practice is being completed on into public access. (Figure 2) Payments on food plots on private land are \$20/acre plus free seed. If the land is enrolled in an access program SDGFP will offer \$50/acre plus free seed annually. Cost share for a woody habitat project is limited to 75% up to \$10,000 per project. Enrollment of the property into public access prior to or at the time of the project will offer 90% cost share up to \$10,000. For the remaining practices that involve grassland and wetland development, or management, standard cost share rates will apply on land in an access program however a per acre bonus will be paid. This bonus will consist of \$1/acre/year of the contract on working lands and \$5/acre/year on idle lands. SDGFP will pay for the increased \$30/acre rate on food plots, 15% increased cost share on woody habitat projects, and the per acre access bonus on grassland and wetland projects using Habitat Stamp funds. This higher cost share rate and per acre bonus will be an incentive for landowners to complete habitat practices on their lands that are positive for habitat and wildlife but will also open them up for public access.

	Food Plots	Woody Habitat	Wetland/Grassland ¹
Public Hunting Access Program Lands (WIA, CHAP, etc.)	\$50/acre + Free seed	90% cost share up to \$10,000	Standard rates + \$1/habitat acre/year on working lands or standard rates + \$5/habitat acre/year on idle lands ²
Non-Public Hunting Access Program Lands & Non-Commercial Lands	\$20/acre + Free seed	75% cost share up to \$10,000	Standard rates

Figure 2. Displays the increased practice incentive when land is enrolled in public access.

Aquatic projects on public waters:

Infrastructure improvements

Maintenance and improvement of infrastructure, such as dams and spillways, is an important component of the Aquatic Habitat Program. Many of these structures are over 80 years old and work is needed to keep them in an operating condition to ensure that fisheries can exist. Maintenance and improvements of structures, typically done by contractors, can vary in scale from small crack sealing to complete replacement.

In-stream habitat diversification

Rivers and streams across the State have been modified in some shape or fashion, which has decreased the amount of habitat diversification. Some modifications like dams have totally changed the species composition of drainages. Efforts have been made to provide more habitat diversification back into rivers and streams. A lot of the existing work has taken place in the Black Hills management area for the benefit of trout species. The modifications have not only changed the number of different habitats present by also the hydrology of the stream and average water temperature is higher. The primary objectives are to create deep water, remove sediment by flushing, add cover for fish, or add substrate and food for other organisms. Techniques include channel blocks, boulders, cover logs, root wads, bank cribs, wing deflectors, channel constrictors, revetments, and wedge dams.

Aeration

Aeration is a technique used in lake management to increase the amount of dissolved oxygen content of the water. Aeration is accomplished by several different types of systems for either injecting air, mechanically mixing or agitating the water, or even injecting pure oxygen. By increasing the amount of dissolved oxygen, lakes can see an increase in fish and other aquatic animal habitat, prevent fish kills, improve the quality of domestic and industrial water supplies, and decrease industrial treatment costs. Aeration has also been seen in some cases to reduce nuisance algal blooms and/or have a shift to less objectionable algae species. However, though, aeration has been thought to be a “cure-all” but when not used properly, can cause more harm

than good. It is important to understand what aeration can and can't do for a lake, so unexpected or unwanted results don't occur.

Aeration is used in lake management to add dissolved oxygen content to the water. Cold, deep lakes, lakes with insufficient surface area, and lakes strongly influenced by ground water all tend to thermally or chemically stratify. Thermal stratification occurs because of the large differences in density between warm and cold waters. Thermal stratification is a strong enough force (the thermocline) between temperatures to resist the wind's mixing forces. The deeper, colder water eventually becomes anoxic, preventing fish from using this area. Thermal stratification not only happens during the summer, but also the winter.

Fish Habitat Structures – Natural and Artificial

Lakes and impoundments across the state are aging and most are lacking in-lake habitat. Deploying either artificial or natural structures has occurred throughout South Dakota. Natural structures include gravel beds, rock piles/reefs, and submerged/felled trees. Conifers have been submerged by anchoring with cable or cement to create spawning structure for yellow perch and as fish attractants around fishing piers. Other types of trees have been submerged as well, but hardwoods and cedars persist longer. This is a cost-effective technique, as trees can be collected from multiple sources. Some waterbodies have ample shoreline woody habitat, while other waters are lacking nearshore structure.

Gravel bed and rock piles/reefs are more costly but equally effective and much longer lasting. The best time for deployment is during maintenance or drawdowns, with heavy machinery. If this option is not available, they can be deployed off boat/barges equipped to handle the weight. These are also used as offshore habitat as well as fish attractors near shore or fishing piers.

Artificial structures can be commercially built or constructed by staff/groups. Constructed fish habitat can vary in shape and size and can be made from several different materials like plastic pipe or fencing, pallets, or wood. Some examples of more popular artificial structure designs include Pennsylvania porcupine crib and crib Jr., Pennsylvania post clusters, Georgia cube, Pennsylvania black bass nesting structures, Mossback™ fish cities, modified spider blocks, Porcupine Ball™, or Honey Hole™.

Aquatic Access Improvements

Numerous management actions can be taken to improve access to fisheries located on public property. In many cases, emergent vegetation has reduced shoreline accessibility, requiring removal of this vegetation to restore shore fishing opportunities. Additionally, the placement of fishing piers and nodes can improve access, including that which meets ADA requirements.

Fisheries renovations

In certain cases, a renovation of a fishery is needed for restoration. This may include a chemical renovation where a piscicide (e.g., rotenone) is used to eliminate the current fish community and then desired species are stocked to re-establish the fishery. Draining of the waterbody is also

another approach for a renovation. Many times, dredging of sediments is often associated with the draining as material may be accessed more easily when the system is dry. Regardless of the kind of renovation, this process usually requires a substantial amount of planning and permitting. However, many systems are in need of this effort as reservoir aging and sedimentation have created scenarios where other management actions (e.g., in-lake habitat placement) are not likely to have desired results.

Aquatic projects on private lands:

Shoreline restorations

The Aquatic Shoreline Restoration Program allows private landowners to partner with SDGFP to restore sections of shoreline to native plants. In many cases, shoreline property is manicured, and the vegetation component lacks complexity (e.g., Kentucky bluegrass). Restoring to native vegetation allows for increased filtering of above ground run-off and bank stabilization.

Access agreements

In many cases access to public waters can be created or improved by working with private landowners. Multiple different options exist to provide public access on private property to public surface waters of the state. One way is through the Fisheries Management Agreement. This program would allow a landowner to receive fisheries management advice and activities by SDGFP. Additionally, stockings of fish may occur on the waterbody. A financial component also exists and would allow the landowner to be compensated annually. In return, open public access is allowed to the fishery. Another example would be a Fisheries Access Agreement where SDGFP would lease a portion of property that would allow for users to access a waterbody. When available, the addition of a Voluntary Public Access component may allow for certain financial incentives, such as a signing bonus.

Project Identification and Resource Planning:

Terrestrial

During 2018 habitat staff completed a statewide GPA assessment. This assessment included evaluating and ranking every GPA and WAA on a scale of 1 to 10 for habitat quality and public use. During this process staff identified potential projects that would improve these areas to bring them to their full potential. Once the Habitat Stamp was enacted staff started and will continue to work through each area making improvements. These improvements may include projects identified during this 2018 assessment or any that have been identified since that exercise. Habitat Stamp funds will be used to improve habitat quality and access to these areas above and beyond normal management and projects that would typically be completed. During 2023 habitat staff will again complete a GPA/WAA assessment on every property on a scale of 1 to 10. This assessment will identify those areas that still need work to reach full potential. Outside of these assessments experienced habitat staff, along with others throughout SDGFP, have been identifying opportunities for improvement on these areas for wildlife and users.

Aquatics

Annually aquatic staff, along with staff in SDGFP, have been meeting regionally to identify aquatic habitat and access projects. This process was something that took place prior to the Habitat Stamp. This process allows input from a broad spectrum of staff including the parks division. Lists of projects continue to be developed and prioritized. Many larger aquatic projects take substantial engineering and preparation before work can begin and be completed. Staff will continue to meet and identify projects to improve habitat and access on public waters.

Resources and partnerships

Projects involve a broad range of people and entities. Beyond SDGFP staff, these include private contractors, conservation districts, land management companies, engineers, NGO's, federal and state partners, counties, townships, municipalities, landowners, and many others. SDGFP staff will seek out and work with all entities and partners to provide the best quality project for both users and wildlife. This may be a complex process to navigate, but in the end, it creates a project everyone who's involved with it can support.

Habitat and Access Project Reporting:

Online

SDGFP website has a section identified as "Where the Money Goes". It's located at <https://gfp.sd.gov/where-the-money-goes/>. A Habitat Stamp dashboard has been set up through this section so the public can view a map showing locations of Habitat Stamp projects. They can also view an itemized list of projects along with their cost. This public reporting method provides clear transparency on how Habitat Stamp dollars are being spent. The map will be updated throughout the year and following a fiscal year all projects will be entered and an itemized list will be uploaded for viewing.

Government Operations and Audit Committee (GOAC)

Annually, SDGFP staff will develop and present a report to GOAC following the end of a fiscal year. This report will include a general overview of the number of various types of projects completed, a detailed itemized project list including cost, and a map of project locations across the state (Figure 3).

Aquatic, Terrestrial, and CREP Habitat Stamp Project Locations All Projects to Date

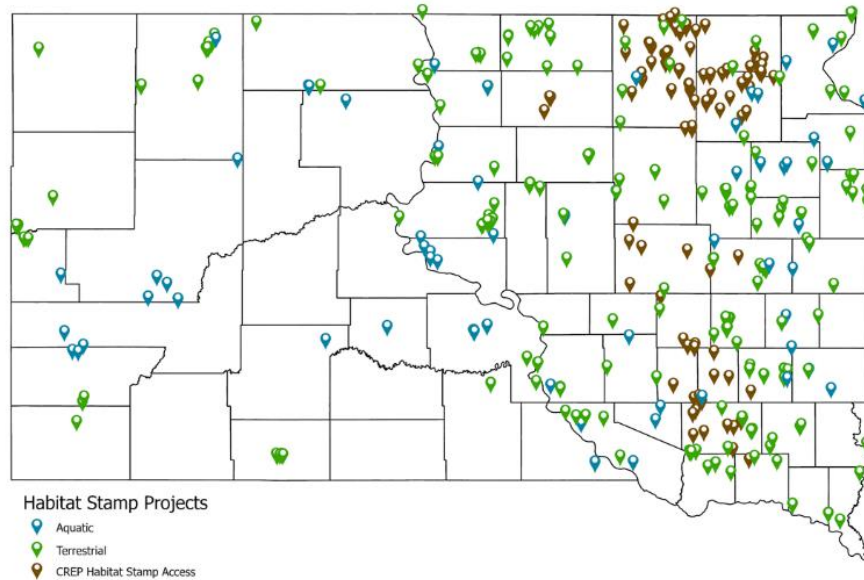


Figure 3. Locations of complete project across South Dakota using Habitat Stamp funds through 2022.

Social media platforms

The SDGFP communications team will also share Habitat Stamp funded projects, photos, information, and success stories across various platforms. This effort will continue to share with the public how this money is positively impacting public land and waters and ultimately their experience hunting, fishing, and trapping.

Signage

Signs have been developed for the field as another way for users to identify Habitat Stamp projects. Signs approximately 12” wide by 18” tall will be installed on metal posts next to completed Habitat Stamp funded projects where applicable (Figure 4).



Figure 4. Signage posted at locations of completed projects using completed Habitat Stamp funds.

Challenges:

Terrestrial:

Site preparation

Various projects that will be funded with Habitat Stamp dollars require site preparation. These projects will include are not limited to native grass seeding, woody habitat plantings, and food plots. These types of projects require soil bed preparation for up to three years in advance. This can create a challenge in the ability for staff to implement projects quickly forcing projects to sit in the planning phase until sites are ready. Staff will diligently plan and start this preparation phase of these types of projects as soon as they are identified. Staff will also consider the overarching volume of projects scheduled and funding available to ensure project success.

Weather

Weather conditions will play an enormous role in the volume of projects that can be completed and the success of those projects. Some projects that include planting or seeding require soil conditions conducive for implements and equipment to function. Other projects such as road and trail improvements will also be highly impacted. Unfavorable conditions like flooding, drought, cold, snow, or prolonged rainy seasons will delay projects weeks, months or even until the next year.

Contractors

Habitat Stamp projects are above and beyond the very aggressive workload staff are normally scheduled to complete. This requires staff to heavily rely on outside contractors to complete most of the Habitat Stamp projects planned. Many times, contractors have a very full schedule and are unable to fit this work in, so staff are forced to delay the project. Staff's available time to

manage contracts and contractors' availability will determine how long it may take to get some of these projects completed.

Permitting and agreements

All federal and state polices and permitting procedures will be followed. Prior to any work being competed by GFP or assigned contractors on property under the authority of another entity such as a township, county, etc. an agreement authorizing work will be completed. Other permitting and clearances such as cultural, State Historic Preservation Office, and those required by the Clean Water Act require additional time to be approved before some projects can begin.

Opportunities

In the world of habitat and access things are always changing and plans need to remain fluid. As plans are developed and site preparations begin to take place opportunities may arise that were unforeseen during the initial planning phase. Staff will take advantage of these when they present themselves. It's best to take this approach even if it adds to the overall time to complete the project. An example could be improving an access road and then determining there is an opportunity to add in a waterfowl access point or small boat ramp by expanding the trail further or altering its path.

Establishment phase

Many of the projects that involve planting require an establishment phase. Projects such as native grass, trees, and pollinator plantings require multiple years to establish. Once established they will provide their full potential to the wildlife and users of the area. Unpredictable weather such as drought and flooding can extend this process. Users' expectations of projects in the establishment phase should be less than fully established seedings.

Aquatics:

Aging infrastructure

South Dakota Department of Game, Fish and Parks owns roughly 84 dams around the state. Most of these dams were built in the 1930's and 40's during the Civilian Conservation Corporation (CCC). Deferred maintenance in many cases resulted in aging infrastructure that saw little to no maintenance during its lifetime.

Sedimentation

Shoreline erosion is a common problem in most waterbodies in South Dakota. Erosion is not only a source of sedimentation and turbidity, but also reduces suitability of shoreline habitat for vegetation and wildlife. Shallow, littoral zones may provide suitable habitat for aquatic vegetation growth, but wave energy severely limits density, diversity, and distribution on unprotected shorelines.

Nutrient loading

Shallow basins, combined with surface water run-off associated with land-use practices has resulted in many systems in South Dakota be eutrophic and hyper-eutrophic. This can complicate fisheries and habitat management. In many cases, few options exist other than to try and reduce the amount of nutrients entering system or that are currently bound within it. Numerous water quality issues associated with aspects such as dissolved oxygen levels or temperature can result.

Contractors

Securing reliable and affordable contractors has proven to be a challenge in certain instances. Many of the habitat and access projects occur in remote areas of the state, which can increase costs of certain aspects of a project, such as mobilization.

Permitting

Depending on the scope of work, multiple layers of permitting may be required prior to initiating a project to ensure that all approvals have been secure. Permitting occurs at multiple levels and can include additional effort and in some cases, specific engineering to ensure that clearances are given.

Engineering

Professional engineering is often necessary for projects to secure necessary clearances and permitting. While engineering may be done internally, high volumes of workload often limit the number of Aquatic projects that can be evaluated. Utilizing outside contracts to accomplish additional engineering requirements has increased the number of projects that can be accomplished.

Water levels

While often outside of staffs control, water levels often impact the ability of staff to accomplish habitat and access work. In some cases, low water facilitates easier working conditions, but may complicate fisheries management. Conversely, high water can create increased angling opportunity, but may reduce access and complicate scheduled projects.

Identifying partners (e.g., municipalities)

In most cases, any aquatic habitat and access project will involve more than SDGFP staff. Depending on the scope of the project, these patterns may be participating from a regulatory (i.e., permitting) standpoint or they share a common goal for the project. At times, identifying these external partners can be difficult. Additionally, other partners and interested parties may exist, but no line of communication has been established.

Ownership

Similar to identifying partners, land ownership around surface waters of the state can complicate aquatic habitat and access, specifically.

Goals, Objectives and Strategies:

Goal # 1: Increase user opportunity and experience through enhancement of habitat and access, both terrestrial and aquatic, on and to public lands and waters and by providing additional public access to private lands.

Goal #2: Increase and improve wildlife habitat to sustain healthy populations of game, nongame, and fish species for current and future generations.

Terrestrial:

Objective 1: Seed native grass and pollinator plots on 1,200 acres in 2023, 800 acres in 2024 and 400 acres in 2025.

Strategy 1.1: Identify non-native grasslands dominated Smooth brome and Kentucky bluegrass and implement site preparations and reseeding plans.

Strategy 1.2: Identify acres of cropland not needed for food sources and reseed to native grasses and forbs.

Strategy 1.3: Identify mixed medium quality grass stands that would benefit from inter-seeding additional species of grasses and forbs.

Strategy 1.4: Identify areas lacking early succession, brood rearing, and pollinator habitat to install pollinator plots.

Objective 2: Plant woody habitat on 45 acres in 2023, 25 acres in 2024, and 15 acres in 2025.

Strategy 2.1: Identify property lacking adequate winter cover to install shelterbelts

Strategy 2.2: Identify marginal shelterbelts for replacement or enhancement with additional rows of trees.

Objective 3: Annually, plant 250 acres of annual and perennial food plots.

Strategy 3.1: Recognize areas lacking food sources to install food plots.

Objective 4: Enhance 1,200 acres of grassland and forest in 2023, 800 acres in 2024, and 400 acres in 2025.

Strategy 4.1: Remove invading woody species from key grassland habitats found on GPAs.

Strategy 4.2: Evaluate forest habitats for opportunities to promote, with management, critical woody species stand regeneration including removal of invasive undesirables while keeping forest diversity in mind.

Objective 5: Improve or develop road and trail access to ten GPAs or other publicly owned property in 2023, six areas in 2024, and three areas in 2025.

Strategy 5.1: Identify GPAs or parcels of GPAs lacking vehicle access that would increase opportunity for users.

Strategy 5.2: Work with and develop agreements with the jurisdictional owner of the road if it's not located on state property.

Objective 6: Improve or develop eight waterfowl access sites in 2023, four in 2024, and two in 2025.

Strategy 6.1: Determine GPAs with wetlands or bodies of water conducive to waterfowl hunting.

Strategy 6.2: Of those GPAs evaluate how additional trails, primitive rock boat ramps, or decoy drop locations might increase opportunity, use, and user experience.

Objective 7: Improve or develop grassland management infrastructure on ten Game Production Areas in 2023, eight in 2024, and six in 2025.

Strategy 7.1: Inventory tracts of grassland to identify those that may be improved by grazing management where other management methods (Fire, Haying) are not possible.

Strategy 7.2: Identify infrastructure needed to accomplish this management.

Strategy 7.3: Partner with neighboring or local producers with livestock to develop a long-term grazing management plan that would enhance or improve these tracts of grassland habitat.

Objective 8: Promote and enroll land into the Conservation Reserve Enhancement Programs in the James River Watershed to reach 100,000 acres and in the Big Sioux River Watershed to reach 25,000 Acres.

Strategy 8.1: Utilize GFP Private Lands Habitat Biologist to promote access programs.

Strategy 8.2: Continue to support partner positions with organizations that will promote enrollment.

Strategy 8.3: Engage all SDGFP staff in conversations with landowners about access programs.

Strategy 8.4: Increase outreach via all methods to share access program opportunities.

Objective 9: Annually secure multi-year Walk-in Area contracts on 20,000 acres of undisturbed habitat or priority big game hunting property.

Strategy 9.1: Utilize GFP Private Lands Habitat Biologist to promote the access programs.

Strategy 9.2: Continue to support partner positions with organizations that will promote enrollment.

Strategy 9.3: Engage all GFP staff in conversations with landowners about access programs.

Strategy 9.4: Increase outreach via all methods to share access program opportunities.

Aquatics:

Objective 1: Annually, improve access or habitat at a minimum of three urban/community waters.

Strategy 1.1: Identify urban/community fishing opportunities with the state.

Strategy 1.2: Identify specific actions to be taken to improve habitat or access.

Strategy 1.3: Engage potential stakeholders associated with management actions.

Strategy 1.4: Secure funding/resources to accomplish management actions.

Strategy 1.5: Evaluate impacts of work on both fish populations and users, when possible.

Objective 2: Annually, improve access to a minimum of five waters.

Strategy 2.1: Utilize internal staff to identify waters in need of access improvements.

Strategy 2.2: Utilize internal staff to identify what actions are needed to improve access.

Strategy 2.3: Engage all interested parties and stakeholders.

Strategy 2.4: Identify if work can be completed internally or externally.

Strategy 2.5: Implement and complete identified actions.

Objective 3: Annually, improve aquatic habitat in a minimum of five standing waters.

Strategy 3.1: Utilize internal staff to identify waters where habitat work is needed.

Strategy 3.2: Engage all interested stakeholders.

Strategy 3.3: Identify actions needed for improvements.

Strategy 3.4: Implement and complete identified actions.

Strategy 3.5: Evaluate impacts of work on both fish populations and users, when possible.

Objective 4: Improve instream habitat at a minimum of three locations by 2025.

Strategy 4.1: Complete previously identified in-stream habitat project within Rapid Creek below Pactola Reservoir.

Strategy 4.2: Complete previously identified in-stream habitat project within Spearfish Creek from Hydro Plant II to Maurice Intake.

Strategy 4.3: Utilize internal staff and external partner to identify location where in-stream habitat improvement could benefit either cold or warm/cool water fishes.

Strategy 4.4: Utilize staff to engage external partners and identify funding sources for project(s).

Strategy 4.5: Identify what actions are needed to achieve desired improvements.

Strategy 4.5: Complete all necessary clearances and permitting required for identified project(s).

Strategy 4.6: Implement and complete identified work.

Strategy 4.7: Evaluate impacts of work on both fish populations and users, when possible.

Objective 5: Conduct one lake renovation by 2025.

Strategy 5.1: Identify fishery where whole-lake renovation is needed

Strategy 5.2: Engage all interested stakeholders and potential funding sources.

Strategy 5.3: Identify work needed for desired improvements.

Strategy 5.4: Complete all necessary clearances and permitting required for identified project/actions.

Strategy 5.5: Implement and complete identified project.

Strategy 5.6: Evaluate impacts of work on both fish populations and users.

Objective 6: Annually, improve infrastructure at impoundments to address state-owned dam inspection report findings.

Strategy 6.1: Utilize dam inspection reported conducted by engineering firm.

Strategy 6.2: Engage internal engineering staff to determine regional groupings of dams for discussions with staff.

Strategy 6.3: Coordinate meetings with regional staff to discuss cost estimates and priorities, based on work needed and current/potential use by public, within groupings.

Strategy 6.4: Select locations and timelines for infrastructure improvements.

Appendix A. South Dakota Codified Law 41-6-85.

41-6-85. Habitat stamp--Fee--Requirements--Promulgation of rules--Violation as misdemeanor.

Except as provided in § 41-6-10.2, a person eighteen years of age or older shall purchase a habitat stamp when applying for or purchasing a hunting or fishing license. The fee for the habitat stamp shall be ten dollars for residents and twenty-five dollars for nonresidents. A person is not required to purchase more than one habitat stamp within a license period as provided by the applicable license and rules promulgated by the commission under chapter 1-26. Any person required to possess a hunting or fishing license may not fish and hunt, or trap without a stamp validation. A purchase of the habitat stamp is not required for the one-day hunting or fishing license, youth hunting license, private shooting preserve license, hunt for habitat application fee, or landowner hunting license. A violation of this section is a Class 2 misdemeanor.

Appendix B. Projects completed in 2021 and 2022 using Habitat Stamp funds reported to the Government Operations and Audit Committee.

Terrestrial:

2021:

Grassland and pollinator plantings: 1,345 acres | 30 GPAs

Food plots: 128 acres | 10 GPAs

Woody habitat plantings: 123 acres | 20 sites

Grassland and forest enhancement: 1,092 acres | 9 GPAs

Access roads and trail improvement: 8 miles | 9 GPAs

Grassland management infrastructure: 11 GPAs

2022:

Grassland and pollinator plantings: 1,628 acres | 31 GPAs

Food plots: 220 acres | 10 GPAs

Woody habitat plantings: 28 acres | 10 GPAs

Grassland and forest enhancement: 1,521 acres | 11 GPAs

Access roads and trail improvement: 22.4 miles | 26 GPAs

Waterfowl access trails and ramps: 11 sites | 10 GPAs

Grassland management infrastructure: 18 GPAs

Access:

2022:

James River CREP: 8 contracts | 584 acres

Aquatics:

2021:

Dam infrastructure improvements: 3 dams | 3 counties

Trail/access improvements: 3 miles | 5 trails

Shoreline plantings: 1 project

Boat ramp development: Long Lake – Codrington County

2022:

Dam infrastructure improvements: 9 waters | 7 counties

Docks/piers: 4 docks | 4 piers | 8 waters

Access roads and trails: 2.45 miles | 3 waters

Access improvements/engineering: 26 projects | 16 counties

Boat ramps: 5 projects

Habitat structures: 13 projects | 12 counties

Habitat improvements: 2 aeration | 1 dredging

Appendix C. Projects planned using Habitat Stamp funds through 2025.

Terrestrial:

Public Land Habitat & Access Projects		2023		2024		2025	
Project Type	Avg. Cost/Unit	Acres/Projects	Cost	Acres/Projects	Cost	Acres/Projects	Cost
Native Grass and Pollinators Plantings	\$ 250	1,200	\$ 300,000	800	\$ 200,000	400	\$ 100,000
Woody Habitat Plantings	\$ 2,500	45	\$ 112,500	25	\$ 62,500	15	\$ 37,500
Food Plot Plantings	\$ 200	250	\$ 50,000	250	\$ 50,000	250	\$ 50,000
Grassland and Forest Enhancement	\$ 400	1,200	\$ 480,000	800	\$ 320,000	400	\$ 160,000
Road and Trail Improvements	\$ 20,000	10	\$ 200,000	6	\$ 120,000	3	\$ 60,000
Waterfowl Access Improvements	\$ 5,000	8	\$ 40,000	4	\$ 20,000	2	\$ 10,000
Grassland Management Infrastructure	\$ 15,000	10	\$ 150,000	8	\$ 120,000	6	\$ 90,000
	Total		\$1,332,500		\$ 892,500		\$ 507,500

Private Land Access Projects		2023		2024		2025	
Project Type	Avg. Cost/Unit	Acres	Cost	Acres	Cost	Acres	Cost
James River Watershed CREP	\$ 45	8500	\$ 382,500	17,000	\$ 765,000	25,000	\$1,125,000
Big Sioux Watershed CREP	\$ 60	8500	\$ 510,000	17,000	\$ 1,020,000	25,000	\$1,500,000
WIA Enrollment Bonuses	\$ 50	20,000	\$1,000,000	20,000	\$ 1,000,000	20,000	\$1,000,000
Private Lands Program Access Incentives	\$ 10	5,000	\$ 50,000	5,000	\$ 50,000	5,000	\$ 50,000
	Total		\$1,942,500		\$ 2,835,000		\$3,675,000

Terrestrial Project Total Summary	2023	2024	2025
Public Land Habitat & Access Projects	\$ 1,332,500	\$ 892,500	\$ 507,500
Private Land Access Projects	\$ 1,942,500	\$ 2,835,000	\$ 3,675,000
Total Projected Annual Cost	\$ 3,275,000	\$ 3,727,500	\$4,182,500
VPA-HIP Grant not available to cover WIA bonuses			
Total Projected Annual Cost	\$ 2,275,000	\$ 2,727,500	\$3,182,500
VPA-HIP Grant available to cover WIA bonuses			

Aquatics:

Aquatic Habitat & Access Projects		2023		2024		2025	
Project Type	Avg. Cost/Unit	Projects	Cost	Acres/Projects	Cost	Projects	Cost
Dams	\$ 60,000	20	\$ 1,000,000	5	\$ 400,000	5	\$ 400,000
Access and Trail Improvements	\$ 16,731	28	\$ 505,000	25	\$ 400,000	25	\$ 400,000
Boat Ramp Developments	\$ 185,625	2	\$ 685,000	3	\$ 400,000	3	\$ 400,000
Habitat Improvements and Restorations	\$ 68,548	9	\$ 275,000	10	\$ 850,000	12	\$ 1,000,000
Urban and Community Fisheries	\$ 114,167	1	\$ 35,000	2	\$ 400,000	3	\$ 250,000
Lease Enrollment Bonus	\$ 10,000	0	\$ -	5	\$ 50,000	5	\$ 50,000
	Total		\$ 2,500,000		\$ 2,500,000		\$ 2,500,000