United States Forest Service Implementation of the Federal Lands Recreation Enhancement Act

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Abstract

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The Federal Lands Recreation Enhancement Act (REA) enables the United States Forest Service (USFS), along with other public land management agencies, to charge user fees at recreation sites to support user-generated cost recovery for federal recreation programs. The USFS implements policies as a decentralized agency using both formal procedures and informal agency norms, along with staff discretion in decision making. Previous research suggests that recreation fees could have disproportionate impacts on low-income users and potentially displace visitors, which presents equity concerns with recreation fee implementation.

Using interview and pre-existing program monitoring data and reports, this study examined the USFS's implementation of the recreation fee program under the REA at four national forests to (1) understand how staff implement the recreation fee program, and (2) explore staff perspectives on the impacts of recreation fee program implementation.

This study found that during implementation of the recreation fee program, USFS staff (1) prioritize similar policy objectives to those in the USFS Recreation Fee Manual, but lack capacity to achieve objectives in full, (2) use formal and informal mechanisms during

implementation, however experiences with these mechanisms vary, and (3) must make tradeoffs with limited funding and information, which are exacerbated with rising visitation. Staff perspectives on impacts of the recreation fee program include: (1) impacts to the organization itself which includes staff, site, and financial impacts, (2) visitor experiences are negatively impacted by a negative perception of recreation fees due to ineffective communication, (3) low public engagement in the fee program may be dependent on local demographics, and (4) displacement can occur but is not necessarily a negative impact.

USFS implementation of the REA does not distort policy. Rather staff lack the financial resources to achieve the policy objectives in full and the outcomes of implementation exacerbate inequities in outdoor recreation. Increasing appropriated dollars with equitable allocation and improving communication and efforts to include underrepresented groups in USFS recreation processes can reduce inequitable outcomes of REA implementation.

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Chapter I: Introduction

Recreation fees are a form of user-generated cost recovery where visitors to public lands in the United States must pay a fee to use specific amenities and facilities at certain recreation sites. The Recreational Fee Demonstration Program (Rec Fee Demo Program) was passed by Congress in 1996 as a pilot program to determine the feasibility of recreation fees for federal land management agencies (Public Law 104-134, 1996). This program was continued by Congress in 2004 with the passing of the Federal Lands Recreation Enhancement Act (REA) (16 U.S.C, 6801-6814), which grants federal land management agencies the authority to charge fees for access to public lands or use of facilities at recreation sites (16 U.S.C., 6802).

Under the REA, some recreation fees can be charged at a *recreation site*, described as an area that (1) provides significant outdoor recreation opportunities, (2) has substantial Federal investments, (3) is where fees can be collected, and (4) contains specified amenities (16 U.S.C., 6802). The REA created procedures for implementation of recreation fees and increased requirements for public participation. Furthermore, the REA added specifications for the amenities and services for which recreation fees can be charged. The fees collected under the REA are used by public land management agencies on projects and programs to increase services and enhance experiences for visitors (U.S. Department of the Interior and U.S. Department of Agriculture, 2018).

The REA addressed some concerns that arose during the Rec Fee Demo Program; these concerns and improvements are important to understand the ways in which implementation of fees by federal land management agencies has been developed over time.

First, the Government Accountability Office determined that the Rec Fee Demo Program lacked sufficient performance expectations and measurement criteria, explicit processes for fee implementation, and proportionate distribution of revenue amongst sites (Government Accountability Office, 2001; Government Accountability Office, 2003). The REA directly addresses performance expectations and measurements by requiring a detailed report on the status of the recreation fee program every three years. These triennial reports are submitted to Congress and combine the fee programs across all implementing federal agencies with an evaluation of the program, examples of projects that were funded through fee revenue, and recommendations for changes (16 U.S.C., 6808).

Additionally, the REA requires agencies to return 80 percent of collected fees to the site where they were collected. This allocation can be reduced to 60-percent if the governing body determines that the revenue collected in an area exceeds the reasonable needs of that unit (16 U.S.C., 6806). This specification addresses the concern of high priority areas being potentially neglected if they cannot produce enough revenue, as highlighted from the Rec Fee Demo Program (Government Accountability Office 1998, Government Accountability Office 2001). Furthermore, the REA provides restrictions on the use of fee revenue at recreation sites (see Appendix B). Site-specific revenue that is unspent will remain available in future fiscal years without appropriation; this gives units the ability to build savings for large projects, increasing the financial capacity of agencies' recreation programs.

The REA created an interagency pass that covers entrance fees and site day-use fees for all federal recreation lands and waters. The interagency pass can be sold at any location that charges an entrance fee or day-use fee and the Secretaries of land management agencies must agree on the price, distribution of revenue, costs, and other implementation details (16 U.S.C., 6804). The

agencies have agreed that 80-100% of sales occurring at agency sites will be returned to those sites (U.S. Department of the Interior and U.S. Department of Agriculture, 2018).

Despite the addition of recreation fee revenue, deferred maintenance backlogs continue to grow for land management agencies. To further support recreation on public lands, Congress passed the Great American Outdoors Act (GAOA) in 2020 which creates a fund that provides 5 years of funding to federal land management agencies with the explicit purpose of reducing deferred maintenance backlogs (USDA Forest Service, 2022). The GAOA increases the capacity of agencies to improve recreation infrastructure and visitor experience and access. The funding from GAOA, which totaled $285 million in FY2021, will help address deferred maintenance backlogs through FY2021 to FY2025 (USDA Forest Service, 2022).

As a land management agency authorized under the REA, the United States Forest Service (USFS) charges a user fee at certain recreation sites to supplement congressionally appropriated funds. The USFS was originally established to extract forest resources, such as timber, however this mission has developed over time to include providing outdoor recreation opportunities (Carhart, 1962). In 1915, Congress authorized recreation use of national forests, with timber and watershed protection maintaining priority of forest use (Carhart, 1962). One of the major turning points in recreation on public lands emerged with the Multiple Use Sustained Yield Act in 1960 which legitimized recreation as a primary use of national forests. The USFS motto “Caring for the Land and Serving People” captures the essence of the USFS mission to “sustain the health, diversity, and productivity of the nation’s forests and grasslands to meet the needs of present and future generations”; this includes the expanded management scope of sustained yield of recreation (USDA Forest Service, 2022).

The authority to charge a user fee for access or use of public lands was first enacted by the United States Congress in 1996 through the Rec Fee Demo Program as a part of an appropriations act (Public Law 104-134). The Rec Fee Demo Program was a pilot program to determine the feasibility of user-generated cost recovery of recreation sites across public land agencies (Public Law 104-134, 1996). The federal agencies specified in the Rec Fee Demo Program had faced funding challenges and increasing maintenance needs, and the program was developed to help the recreation programs within these agencies build financial support to improve and maintain sites (Government Accountability Office, 1998). To achieve this objective, the Rec Fee Demo Program allowed selected areas or sites to collect and charge fees for admission or the use of recreation facilities, visitor centers, equipment, and services. The Rec Fee Demo Program was implemented through contracts with any public or private entity in service provision and encouraged private investment and partnerships to improve customer services and resource enhancement (Public Law 104-134, 1996). Additionally, the Rec Fee Demo Program provided agencies with guidance for setting fee values and revenue distribution (see Appendix A).

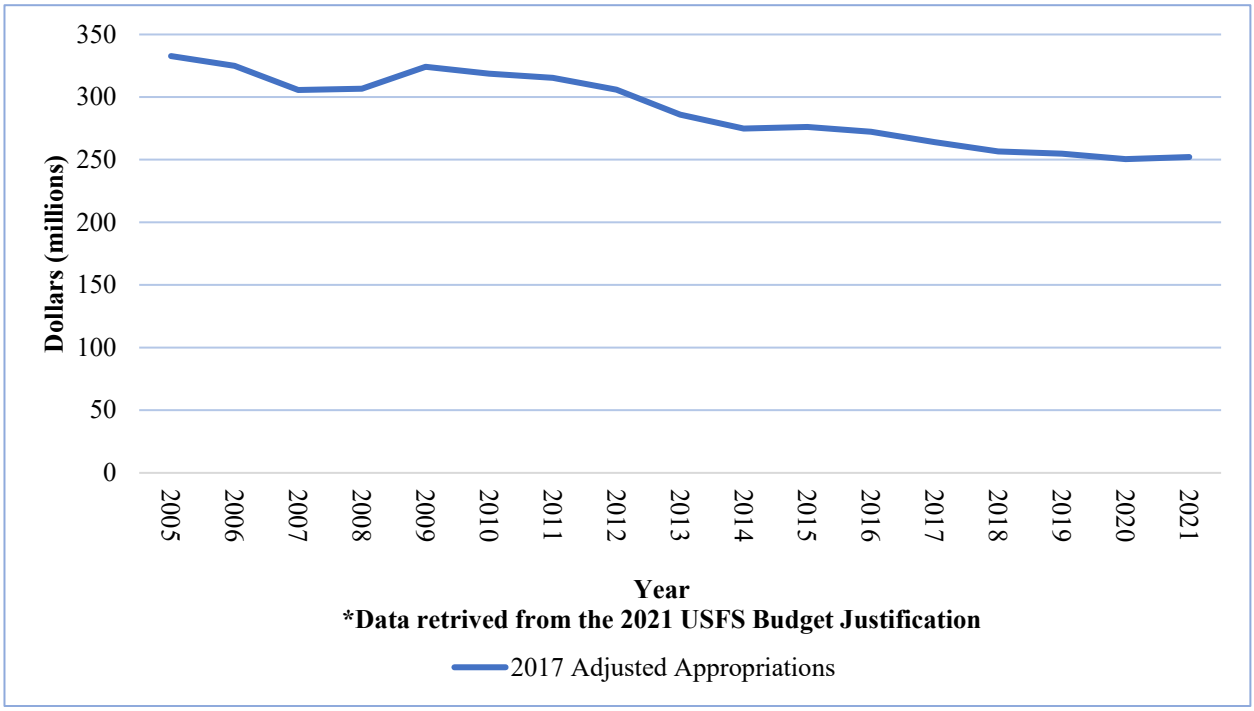
To maintain operations of these recreation sites, prior to the Rec Fee Demo Program, the USFS relied on Congressionally appropriated dollars. To reduce recreation site operation costs the USFS could contract to concessionaires (Kirschner, 2014), authorized under the Granger-Thye Act of 1950. The USFS defines a *concessionaire*, as "an individual, organization, company, corporation, or cooperating State or local agency holding a valid special use permit authorizing the provision of commercial recreation services, facilities, or activities on National Forest System lands" (USDA Forest Service, 2014).

Currently, the USFS manages over 31,000 recreation sites, of which about 4,400 developed sites collect fees under the REA (U.S. Department of the Interior and U.S. Department of Agriculture, 2018) and about 2,300 sites collect other fees (e.g., concessionaire-run fee sites) (U.S. Department of the Interior and U.S. Department of Agriculture, 2015). USFS staff can implement an array of fee types under the REA and there are differing requirements and restrictions for each type. This study focuses primarily on the implementation and impacts of *standard amenity fees*, *expanded amenity fees*, and *special recreation permit fees*. These fees can be charged by the public agency or a private concessionaire through a contract with the USFS. The USFS expanded upon the REA with agency-specific directives including procedures for implementing recreation fees (USDA Forest Service, 2013).

The USFS manages 154 national forests, totaling 188 million acres of land across 43 states and Puerto Rico (USDA Forest Service, 2017). The USFS received an estimated 168 million visits to recreation sites in 2020 and visitation is increasing (USDA Forest Service, 2020). Across these forests, the USFS manages over 30,000 recreation sites, of which about 4,400 developed sites collect recreation fees under the REA. To support the USFS Recreation, Wilderness and Heritage program, Congress appropriated $264 million in 2017 (USDA Forest Service, 2020); these appropriated dollars have been steadily declining since 2005, while costs to the USFS are increasing (Cerveny et al., 2020). The USFS received an additional $72 million in revenue in REA fees in 2017, of which around 80% came from amenity fees and about 20% came from special recreation permit fees (U.S. Department of the Interior and U.S. Department of Agriculture, 2018). In comparison, the USFS recreation site maintenance backlog has reached over $5 billion (USDA Forest Service, 2019).

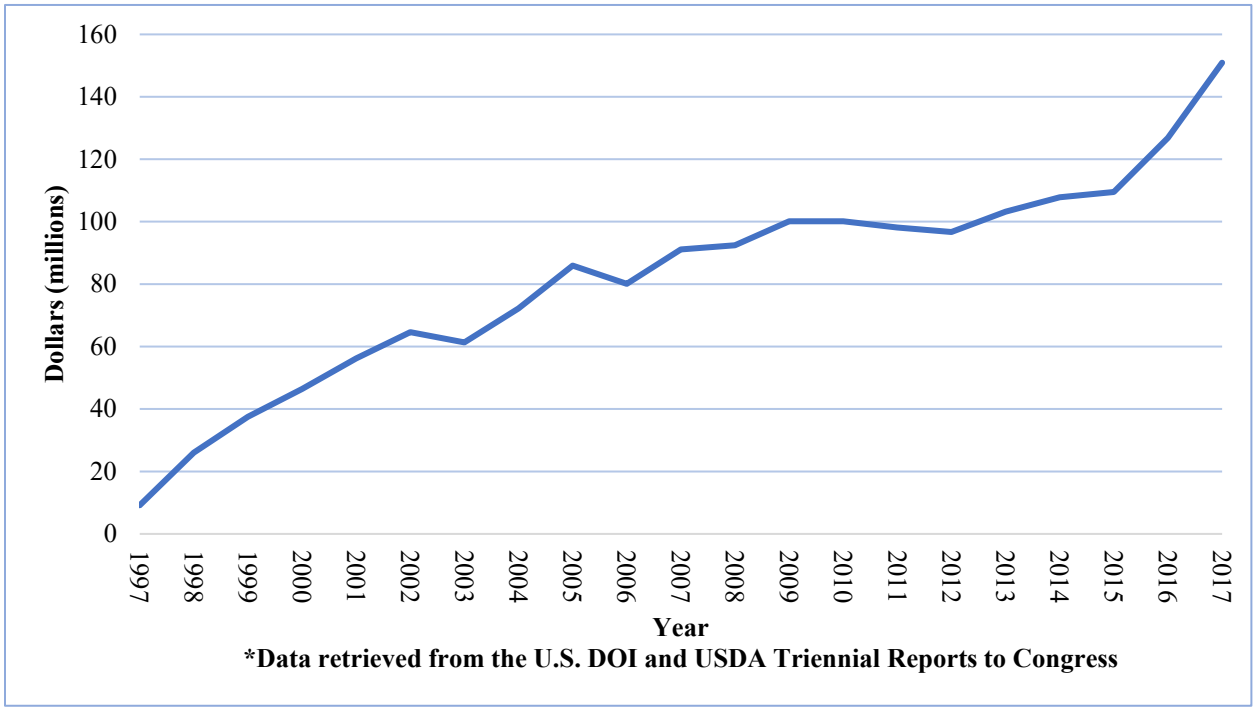
It is important to recognize the funding mechanisms and growth of recreation on national forests. The USFS receives Congressional appropriations to fund recreation, as shown in Figure 1. Congressional appropriations to the USFS come through discretionary funds and permanent funds. Discretionary funds to the USFS Recreation, Wilderness, and Heritage program are the specific account for the USFS recreation fee program to receive federal funding. These funds primarily support recreation program staffing and workforce development, active forest management, and infrastructure maintenance and improvement (USDA Forest Service, 2021). In 2017, the USFS received about $264 million for the Recreation, Wilderness, and Heritage program (USDA Forest Service, 2020).

Figure 1: USFS Recreation, Wilderness, and Heritage Appropriated Budget (2005-2021)*



From the start of the Rec Fee Demo Program to present, the USFS has increased its reported recreation fee revenue. Figure 2 shows the growth of agency-wide recreation fee revenue collected annually and brought forward from previous fiscal years. This increase in revenue from the recreation fee program is contrasted with the decline in shown in Congressional appropriations (Figure 1). The cost of fee collection for FY2017 totaled 8.6% of USFS recreation fee revenue (U.S. Department of the Interior and U.S. Department of Agriculture, 2018); cost of collection includes expenses relating to printing fee envelopes, staffing collection booths, and agency personnel collecting fees, not including overhead, indirect, and administration costs (USDA Forest Service, 2013).

Figure 2: Total Recreation Fee Program Funds (1997-2017)*



***Data retrieved from the U.S. DOI and USDA Triennial Reports to Congress**

The REA and USFS directives do not provide procedures and guidelines for every decision involved in charging recreation fees and this can lead to differences in implementation and impacts across the agency. Examining recreation fee implementation at the USFS, a large

agency with a hierarchical structure and decentralized management, can provide useful insights on how organizational and staff characteristics can alter the implementation and impacts of the REA.

Including unobligated recreation fee funds brought forward, 2017 recreation fees accounted for around 36% of recreation program funding (U.S. Department of the Interior and U.S. Department of Agriculture, 2018; USDA Forest Service, 2018). This calculation does not account for external funding sources, such as donations and grants and is an estimate of Congressional appropriations given the USFS can allocate these Congressional dollars towards funding the recreation program, or other programs within Recreation, Wilderness, and Heritage.

The USFS and other recreation fee implementing agencies use a website (recreation.gov) to provide information on some recreation fee sites, allow users to make reservations, pay fees in advance, and acquire special permits. Currently, the USFS hosts over 2,000 facilities on the site, with more than 1 million reservations made in 2017, totaling almost $50 million in recreation fee revenue of the USFS's $72.2 million total revenue (U.S. Department of the Interior and U.S. Department of Agriculture, 2018); online fee revenue is allocated in accordance with the REA and USFS directives. The USFS contracts management of recreation.gov to a private company, which charges users an online reservation fee of $9 per transaction (U.S. Department of the Interior and U.S. Department of Agriculture, 2018). The reservation fee can vary based on location and fee type.

Previous research has focused on recreationists to define impacts from a user perspective, however few studies have attempted to determine impacts from the perspective of USFS staff. By examining information sources, formal and informal operations, and staff perceptions of

recreation fee program impacts, this study contributes to a more comprehensive understanding of the dynamics of the USFS recreation fee implementation field.

The first objective of this study is to examine the decision-making process of USFS staff when implementing REA. The USFS recreation fee program implementation varies widely and has not been systematically studied. This study does not attempt to categorize USFS implementation of recreation fees under the REA as successful or unsuccessful; it attempts to understand the circumstances under which policies change in the implementation field of a complex, multi-level agency. To understand how the REA program is implemented, two questions were posed:

1. What recreation fee policy objectives are prioritized by USFS staff?
2. What information do USFS staff use to make decisions about the recreation fee program?

The second objective in this study is to examine USFS staff perspectives on the impacts recreation fees could have on visitors' experiences and access to recreation sites. These potential impacts have not been previously studied from the perspectives of staff and this lens can provide valuable information on the potential unintended consequences of the USFS recreation fee program. Under this objective, three questions were posed:

1. What are the impacts USFS staff perceive from recreation fee program implementation?
2. How do USFS staff perceive the impact of recreation fees on visitor experiences?
3. How do USFS staff perceive the impact of recreation fees on visitor access?

Chapter II provides an overview of USFS recreation fee policies in the United States. The language in the REA has been defined and clarified throughout almost 20 years of implementation and historical context is important in conceptualizing and understanding how the program has developed. Specific policies and procedures of the USFS recreation fee program are

explained. The purpose of summarizing these policies is to establish an understanding of the USFS recreation fee program within which staff operate.

This discussion is followed by a literature review on implementation theories which ultimately focuses on a framework for conceptualizing federal recreation fee implementation as a strategic action field. These concepts are useful for examining the implementation decisions and norms of USFS staff and the influence these might have on the recreation fee program. Previous studies have not examined the recreation fee program from this lens, resulting in a lack of understanding of staff perspectives, a gap which this study aims to bridge.

Included in Chapter II is a literature review on public perceptions of recreation fees and literature examining the equity concerns related to charging fees on public lands. This literature contains a broad discussion of equity in recreation management and focuses on studies that attempt to determine whether recreation fees displace low-income visitors from fee sites. These studies describe the public impacts of recreation fees to provide context for this study's findings related to staff perceptions of potential impacts of the fee program on their forests.

Study methodology and selected cases are described in Chapter III. This study specifically examines staff implementation of the recreation fees and staff perspectives of the recreation fee program's impacts. A multi-case approach was used to understand implementation across forests with different geographical locations, visitors, and local populations. Furthermore, interviewing USFS staff allowed for staff experiences and perceptions to be examined. The scope of this study is limited to understanding the implementation of standard amenity fees, expanded amenity fees, and special recreation permit fees under the REA. This study is well positioned to gain insights from policy implementors, such as USFS staff, who have a unique understanding of the policy field and outcomes of policy on the public.

Chapter IV presents results from the analysis of interviews regarding staff priorities and information sources when implementing fees, staff interactions in the implementation field, and perceived impacts of the USFS recreation fee program on the agency and visitors. Interview data are analyzed and compared across the cases and staff roles. This comparison is useful for understanding whether characteristics of the cases influence decision making and perceived impacts.

Lastly, Chapter V provides a discussion of the USFS implementation of recreation fees and perceived impacts. This study concludes that USFS staff lack resources to achieve the policy objectives of the REA and implementation of recreation fees amplifies inequities in outdoor recreation.

Chapter II: Recreation Fee Policy Background and Literature Review

This chapter provides a foundation on the USFS recreation fee program, recreation fee policies, and implementation theory, followed by a presentation of the informal networks of the USFS recreation fee program. The aim of this discussion is to frame the policies and procedures that USFS staff work within and understand how the current norms have been shaped throughout time. These considerations are important to explain challenges faced by USFS staff, contextualize the changes policies can undergo in the implementation field, and the impacts policies can have on the public.

A. United States Forest Service Recreation Fee Policies and Procedures

The following section explains policies and procedures the USFS enacted to expand upon the REA. The discussion consists of five sub-sections: fee types, policy objectives, public involvement requirements, fee revenue expenditures, and development requirements. This information provides context for the decisions USFS staff must make when implementing recreation fees under the REA.

A1. Fee Types

Under the REA, the USFS is authorized to charge and collect a standard amenity fee (SAF) and expanded amenity fee (EAF) under specified conditions. To charge a SAF, the area must be a National Conservation Area, National Volcanic Monument, destination visitor or interpretive center with a range of services, programs, and media, or a *recreation site* (16 U.S.C., 6802). The REA limits the USFS scope of fees with requirements and restrictions for charging recreation fees (see Appendix B). Table 1 provides an example of the recreation site and facility requirements for charging recreation fees under the REA.

Table 1: REA SAF and EAF Requirements (16 U.S.C., 6802)

Fee	Recreation Site Type	Site Requirements
Standard Amenity Fee	Day-use (e.g., picnic area, trailhead)	Designated developed parking area, permanent toilet facility, permanent trash receptacle, interpretive sign, exhibit or kiosk, picnic tables, and security services.
Expanded Amenity Fee	Expanded use (e.g., campground, boat launch, cabins)	A campground must have a majority of the following services: tent or trailer spaces, picnic tables, drinking water, access roads, collection of the fee by staff, reasonable visitor protection, refuse containers, toilet facilities, and simple devices for containing a campfire.

Another fee type set forth in the REA is *special recreation permits* for specialized recreation uses (special use) of Federal lands and waters. These fees are implemented in the form of a permit and can be used for various specialized activities that visitors engage in, such as river rafting and backcountry camping. Special recreation permits are also permitted for commercial activity, such as outfitting and guiding and recreation events (USDA Forest Service, 2013). The distinction of commercial and non-commercial permit fees allows for different revenue uses and requirements (USDA Forest Service, 2013). In the case of commercial permits, outfitters and guides pay a fee to the USFS, rather than individual users.

In contrast to SAFs and EAFs, specialized recreation permits might not be associated with a specific recreation site and amenities. Non-commercial permit fees are authorized when additional measures are needed to protect resources, restrict the number of users participating at one time, or to provide extra safety measures. Commercial permit fees are required for large groups or for conducting business on USFS lands (USDA Forest Service, 2022).

Initially, staff within the USFS struggled to understand the specific requirements and restrictions of the REA, reporting they felt the wording is ambiguous and many staff members reported feeling confused (Government Accountability Office, 2006). The public, through the

judiciary system, has further refined the REA language for the USFS. A pertinent case for defining ambiguous policy language was in 2011, when the U.S. District Court of Appeals ruled on a case related to the REA prohibition on charging fees for parking or picnicking in an area. This case arose from a user of public lands who felt they were unjustly charged a fee for parking near a recreation area and not utilizing facilities (Adams v. USFS, 2011). The District Court ruled that the REA distinguishes between recreating in an area and using the amenities for which a fee can be charged, and parking, picnicking, and traveling through an area (Adams v. USFS, 2011). This ruling clarified the scope of the REA in that for a fee to be charged visitors must use amenities and services at a site, compared to roadside parking and use of undeveloped areas, which further refined the spatial boundaries of what can be legally a fee area.

Another challenge related to recreation fees is centered on the operation and equity of private concessionaires operating on public lands (Marx, 2002). Concessionaires have the authority to collect fees at recreation sites, however these operators are not required to adhere to REA restrictions and requirements (16 U.S.C., 6805). The USFS has power under the REA to overrule the Granger-Thye Act and require private entities to adhere to the REA requirements, however the agency has yet to implement this power, resulting in increasing numbers of concessionaire sites that do not follow the REA or agency directives on implementing fees (Kirschner, 2014). The scope of the REA over concession operation was confirmed by the U.S. District Court in the case Bark v. USFS which ruled that permits allowing concessionaires to charge fees in violation of REA are lawful and the conditions applied to charging fees under REA do not apply to third parties (Bark v. USFS, 2014). The movement towards privately-operated recreation sites could be the result of acceptance from local managers that concession operation is a better solution to inadequate funding compared to closing recreation sites (Quinn, 2002). In these cases, the USFS

claims allowing third-party operation is the only way to keep sites open and is a public necessity. However, third-party operation of recreation fee sites involves a revenue generating mentality, which differs from the federal government goal of charging recreation fees, to improve user experiences and protect natural resources (Kirschner, 2014).

A2. Policy Objectives

The USFS's stated objectives can become distorted through the implementation process. Policy distortion is a change in the original meaning of a message as it passes through a communication network (Matland, 1995). This distortion can occur due to the many levels of interpretation a message passes through before reaching the implementing actors. In this study, we compare stated objectives to staff-identified objectives from interviews to capture differences in perceptions and motivations across the selected cases.

The USFS directives provide detailed and agency-specific guidance to recreation fee implementation, in an attempt to clarify the REA and add conditions where applicable. These directives include manuals of legal authority explaining policy objectives, responsibilities, and guidelines and USFS handbooks provide the instructions for carrying out manual direction. The USFS states the following policy objectives for collecting recreation fees:

> 1. "Provide quality recreation opportunities, protect the environment from user created damage, promote safe visitor experiences, and achieve financial sustainability in the short and long term.
>
> 2. Strengthen the relationship among visitors, local communities, and the Forest Service by recognizing that recreation fees are an investment visitors make in recreational facilities and services and by using recreation fee revenues wisely.
>
> 3. Promote increased efficiency and cost reduction in providing recreational services and amenities.

4. Be accountable, efficient, responsive to visitors, and transparent in managing and spending recreation fee revenues. Build public confidence in the agency's ability to convert recreation fee revenue efficiently into meaningful accomplishments" (USFS, 2013).

The unique nature of regions, forests, and recreation sites could potentially impact the consistency and feasibility of these objectives in the field. The USFS Recreation Site Handbook expands on the directives of the REA, specifically including additional criteria for charging fees and determining their value (see Appendix C).

A3. Public Involvement Requirements

The public is a stakeholder in USFS management of public lands and is impacted by the decisions made by USFS staff. This section describes the policy requirements for including the public in recreation fee decision-making processes.

The USFS processes for adding and maintaining fees at recreation sites requires opportunities for public participation and input, along with communication of the accomplishments of recreation fees (USDA Forest Service, 2013). It is the responsibility of the USFS to establish guidelines for public involvement, provide transparency to the public, and communicate with the public (see Appendix C).

In addition, the REA established the formation of Recreation Resource Advisory Committees (RAC) to provide recommendations regarding SAF and EAF implementation, elimination, or expansion (16 U.S.C., 6803). The REA requires one RAC per region and allows the USFS and Bureau of Land Management to share committees. There are presently three regional USFS RACs in operation, four regional RACs in operation with the Bureau of Land Management and other partners, and four states that are exempt from a RAC in accordance with the REA and with approval from the U.S. Department of Agriculture Secretary and State Governors (USDA Forest

Service, 2022). The RACs are composed of volunteers with differing interests and motivations. The implementation of RACs initially caused delays for the USFS in adding and modifying fees (Government Accountability Office, 2006) and issues, such as process delays, continue to persist with USFS RAC operation (U.S. Department of the Interior and U.S. Department of Agriculture, 2018; U.S. Department of the Interior and U.S. Department of Agriculture, 2012). The USFS Recreation Handbook specifies RAC operations and recreation fee proposals in further detail (see Appendix E).

A4. Fee Revenue Expenditures

This section discusses the requirements and restrictions for the USFS when expending recreation fee revenue and is important to inform limitations on the decisions made by USFS staff during implementation of the REA.

The USFS Recreation Handbook delineates how recreation fee revenue can be spent beyond the guidelines in the REA, and USFS created specific fund codes to manage recreation fee revenue at the site level (USDA Forest Service, 2012). For administrative unit expenditures, the USFS limits units to expend fee revenue in a way that provides a direct benefit to users (see Appendix C) and requires that to the extent possible, recreation fees should be spent in proportion to their source. For example, the percentage of fee revenue collected from SAF sites should be returned to developed day-use recreation sites, and the percentage of fee revenue attributable to special recreation permit fees should be spent on administration of special recreation permits (USDA Forest Service, 2013). The USFS increases the use restrictions for fee revenue from 80%, as required in the REA, to 95% of fee revenue which must be deposited at the unit where it was collected and the remaining 5% must be deposited to the region (USDA Forest Service, 2013). The fee revenue not allocated to the administrative unit level can be used

for general administrative costs at regional and national levels, amounting to no more than 15% of the total USFS recreation fee revenue. These fee revenue funds exclude interagency passes, regional passes, and online reservation fees as they are part of different agreements.

The Government Accountability Office expressed concern with the USFS implementation of recreation fees during the Rec Fee Demo Program and concluded that additional revenue from fee collection had no measurable impact on deferred maintenance (Government Accountability Office, 2003). To address this concern, the USFS requires annual accomplishment reports to track fee revenue and expenditures. These reports specify projects and improvements made at specific fee sites and how the public benefits from the enhancements (USDA Forest Service, 2013). While the reports are posted on USFS websites and physically at recreation sites, their effectiveness in communicating fee benefits and accomplishments has not been examined.

A5. Development Requirements

Beyond the decision-making process for charging and changing recreation fees, staff must also consider if and how to develop recreation sites, using fee revenue or pursuing funding from other sources. The USFS provides managers with some guidelines for site development (USDA Forest Service, 2018). Some development projects funded with recreation fee revenue have been approved at local staffing levels, occasionally without unit manager approval (Government Accountability Office, 2006) indicating potential use of informal norms and discretion in the development process.

Categorization of recreation sites guides staff decisions about development and therefore the need for recreation fee revenue and potential uses. Development of recreation sites should be compatible with the Recreation Opportunity Spectrum (ROS), a recreation management

guideline that was adopted by the USFS and Bureau of Land Management (USDA Forest Service, 2018). The ROS links recreation factors such as types of activities, settings, motivations, and benefits of recreation that can be operated by management staff (Manning et al., 1999). The handbook and ROS provide a guideline for management, however individual site decisions and information collection strategies adopted by managers and site staff is not clear.

The USFS requires forests to follow a project development process which is intended to guide development activities, outputs, and project considerations. To help inform these decisions, the USFS started the National Use Visitor Monitoring Survey (NVUM). The NVUM collects information from visitors to help national forests make resource management decisions, such as decisions about facility development and help identify forest recreation niches (USDA Forest Service, 2018). In 2004, the NVUM started on a 5-year data collection rotation, in which every forest is surveyed on a 5-year period. The data gathered in the NVUM provides data on the frequency of visits to national forests, where visitors stay and for how long, their spending patterns, their satisfaction with facilities and services, and their demographics. The data collected in the NVUM can be useful for examining forest user's perceptions, preferences, and demographics. This data and accompanying directives do not provide information on visitor preferences for fee revenue use.

B. Policy Implementation Theories

This section discusses several policy implementation frameworks to better understand the ways an organization might convert policies into action. This discussion captures the debates on implementation theory and presents a framework for understanding the USFS implementation of recreation fees. These discussions are important to accurately depict the operations of the USFS

recreation fee program and understand how policies can distort as they pass through implementation fields.

B1. Approaches to Understanding Policy Implementation

The historical approach to policy implementation of large government agencies, such as the USFS, is *top-down*; top-down implementation involves a single authoritative decision being carried out across layers of an organization (Hill and Hupe, 2002). Top-down implementation theories suggest an idealized situation where top-level authorities develop visible, clear goals and simple structures for implementation to reduce distortion of the policies during-implementation (May, 2003). Other necessary components of effective top-down policy implementation include: policies with adequate causal theory and established process structure that enhances compliance, committed and skillful implementing actors, support from interest groups, and in socio-economic that conditions do not limit political support or causal theory of the program (Sabatier, 1986). Very few organizations can meet the criteria for clearly ranked policy objectives and top-down scholars believe a range of acceptable values is more realistic for these policies than precise policy objectives (Sabatier, 1986).

The command-and-control theory of top-down implementation literature was empirically backed, although other scholars note the subjective measures utilized in this framework (deLeon and deLeon, 2002). A top-down approach can lead to distortion of policy goals through organizational layers, resulting in a deficit between the written policy and implementation actions (Hill and Hupe, 2002). Given the many layers of federal land management agencies and individual implementing units, distortion is likely in the implementation of the REA. Top-down theory is useful when examining centralized government agencies that receive clear direction from policymakers. The USFS is a decentralized agency with many mid-level decision makers

and the REA contains ambiguous wording (Government Accountability Office, 2006), reducing the effectiveness of utilizing a top-down framework when examining USFS recreation fee policy implementation.

The implementation literature suggests an additional framework for understanding the implementation of recreation fees. The *bottom-up* implementation framework involves discretionary decisions made by 'street-level' workers (agency staff), who shape the outcomes of policies based on their decisions (Lipsky, 2010). Critics of top-down theories suggest that street-level bureaucrats were necessary for successful implementation and top-down frameworks, focused on policy goals and high-level authority, largely ignored street-level workers (deLeon and deLeon, 2002). Bottom-up theory suggests that the discretion of street-level workers occurs, in part, because of the complications of implementing a policy or service. Street-level staff are motivated to use their discretion in developing adaptations to manage large amounts of work with inadequate resources (Lipsky, 2010). Critics of bottom-up theory do not dispute the discretion of street-level bureaucrats in interactions with policy audiences; however, these scholars claim policy should not be designed to offer flexibility and discretion, unless the policy creators and implementers are the same actors (Matland, 1995).

The decisions made by street-level workers (such as recreation site staff), can impact the outcomes of a policy (Lipsky, 2010). This theory views actors at the 'top' of policy creation as only indirectly influencing local implementation and impacts, resulting in variation in how a national policy is implemented at local levels (Matland, 1995). Therefore, the judgements of local staff may have an impact on policy outcomes, shape policy objectives, and determine actions that are not explicit in the policy.

Top-down and bottom-up are not the only approaches to understanding implementation, as literature has expanded to include hybrid theories and further develop conditions where one approach may be preferred over another. Different perspectives can be applied to different points in the implementation process, and some argue that a top-down perspective is preferred during early planning stages and bottom-up is appropriate during evaluation (Matland, 1995). Scholars of bottom-up theory suggest that the goals, strategies, activities, and contacts of actors involved in policy implementation must be known to understand local implementation (Matland, 1995).

This study explores implementation of the recreation fee program after almost 20 years, using a bottom-up framework to compare current staff observations with implementation theory. The REA has ambiguous wording (Government Accountability Office, 2006) and the message in the policy requires interpretation by implementors. A bottom-up approach is appropriate for this study because these decisions during fee program implementation are completed by mid-level recreation managers and staff. A bottom-up understanding of implementation is useful where there is direct interaction between the policy implementors and the target audience. Given the public interface and participation included in the recreation fee program, a bottom-up approach is used to explore the decisions and interactions of USFS recreation staff and the perceived policy impacts.

B2. Strategic Action Field Framework

By examining mid and bottom-level staff implementation of USFS recreation fee policy, the communication mechanisms and relationships within the USFS *strategic action field* can be more clearly understood. The strategic action field conceptualization of implementation is focused on situations with spoken and unspoken rules about actions when actors share an understanding about their purpose and relationships (Sandfort and Moulton, 2015). This explicit

(spoken) and implicit (unspoken) communication is necessary for policy implementation, especially for intragovernmental communication where a lack of clarity and consistency in communication can result in greater policy distortion (Cline, 2000). The strategic action field framework is used in this study due to the policies and guidelines governing the recreation fee program that leave room for discretion across many levels of the organization.

Strategic action fields are host to social structures which can include a mix of formal procedures and accepted norms. Social structures in implementation systems can be used to navigate decisions where there are limited capacity and resources, however, this can also lead to constraints on solution development and perpetuate ideas that are no longer effective (Sandfort and Moulton, 2015). Policy distortion can also occur as individual perceptions and interpretations of messages can change the meaning of policy throughout implementation between organizational levels.

A key element of policy implementation is the core program, which is the logic within a policy of using of activities and resources to change current conditions (Sandfort and Moulton, 2015), also referred to as a *logic model*. For example, recreation fees are presented as an investment in the site and user experience. While logic models can be developed through legislation, they can also be defined at the field level where problems, solutions, and participants all come together; actions by implementors can change the intended logic model in the policy (Sandfort and Moulton, 2015). The core program is embedded across different implementation layers, and each layer has its own social structures and norms. The elements of the core program that are put into action are a result of different organizational layers, structures, and actors (Sandfort and Moulton, 2015). This is a crucial consideration when examining fee policy implementation. The federal policy logic, approaches, and intended accomplishments are

established, however a field-level examination of policy implementation can help identify where implementing actors have reshaped the core program.

Sandfort and Moulton identify three key features that are important during examination of a strategic action field. First, the target population of a policy is the intended group that experiences the processes and structures on the frontline of action fields (Sandfort and Moulton, 2015). Second, assumptions of behavior within a policy and its implementers needs to be considered (Sandfort and Moulton, 2015). Implementors of the policy may or may not buy into these assumptions and observe the assumed behavior from visitors. Lastly, the efficacy of activities, or the effectiveness of the program, needs to be understood (Sandfort and Moulton, 2015). Comparing the intended impacts of a policy and the impacts staff perceive can be useful in examining the effectiveness of the program's logic model.

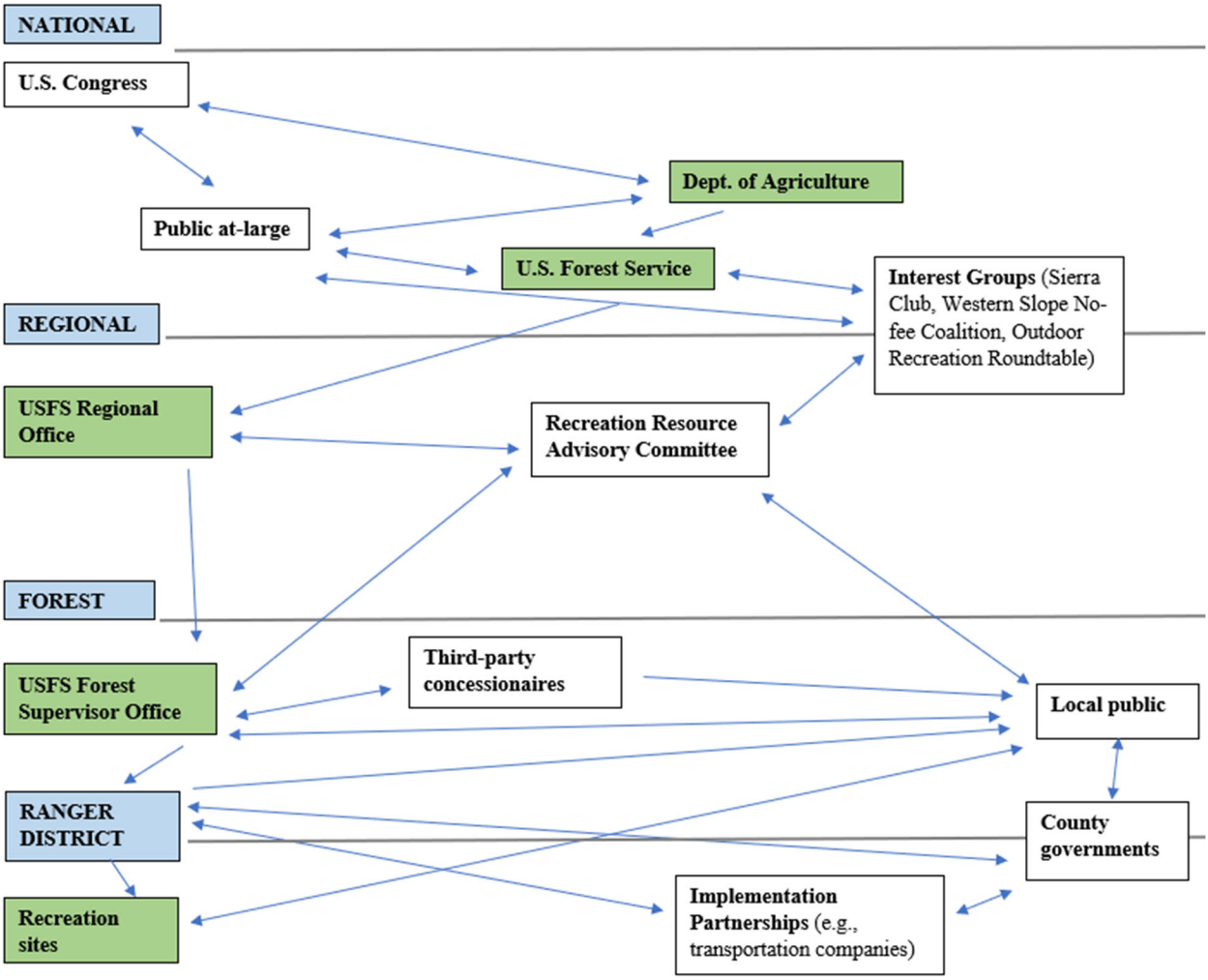
B3. USFS Recreation Fee Program as a Strategic Action Field

As previously discussed, this study conceptualizes the USFS implementation of the REA in a strategic action field. This section expands upon the strategic action field framework to demonstrate the anticipated USFS recreation fee program strategic action field, logic model, and program audience, assumptions, and efficacy. Using this framework allows for comparisons to be made between expected staff norms and informal networks with in-the-field staff actions and perceptions.

As shown in Figure 3, the USFS policy field can be separated into national, regional, forest, and district levels. The entities in this figure are representative of parties with interest and power in the recreation fee action field. The different relationships represented may originate from policy responsibilities, accountability (e.g., to the public), and funding mechanisms. The

example action field is not holistically representative of every party involved in recreation fee implementation; however, it is an example of the complexity and multitude of players in the implementation field.

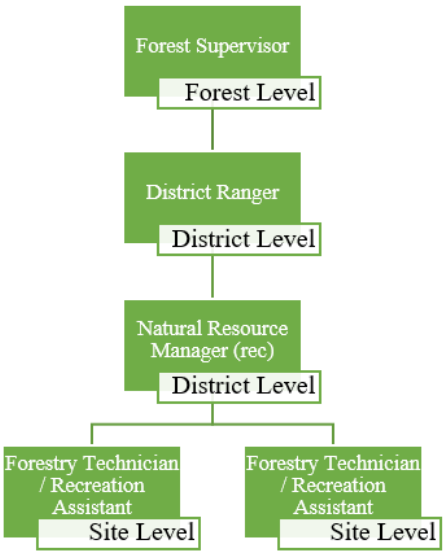
Figure 3: USFS Policy Implementation Field Map



The implementation of the REA occurs across many levels of the USFS strategic action field, given the internal staffing structure of the USFS and accountability to external stakeholders. The relationships amongst these internal and external levels can be visualized in a policy field map (Sandfort and Moulton, 2015). The degree to which forest staff share an understanding of the policies and their purpose in implementation of recreation fees is not well documented. Furthermore, USFS staff directly interact with the public at recreation sites, and these interactions could have an influence on the implementation of recreation fee policy in the field.

To further understand the strategic action field of the USFS recreation fee program on a forest level, an understanding of the staffing hierarchy must be established. The USFS structure can be segmented into national, regional, *administrative unit* (forest), and district levels. An administrative unit is a singular national forest or other comparable unit within the National Forest System (USDA Forest Service, 2013). The administrative unit is separated into the Forest Supervisor's Office, Ranger Districts, and recreation sites. The hierarchy of the USFS allows for these segments to communicate through line officers, who are the ultimate decision makers at each level and held accountable to the segment above them. Figure 4 is an example of the recreation staffing structure for a forest. This is a very simplified example, as forests may have different numbers of staff based on their needs and resources. This example represents the hierarchy that might exist

Figure 4: USFS Recreation Fee Staff Structure



on one Ranger District; however, forests can have *zones*, in which staff are responsible for overseeing multiple districts that collectively make up a zone. Furthermore, forests may have different titles for similar roles. The USFS directives specifically provide responsibilities for actors within these segments (see Appendix F).

The conceptual logic model within the REA and subsequent USFS directives is that if users of recreation facilities are charged a fee, those fees can be used to make enhancements to the site, thus creating a better user experience and protecting natural resources. As explained by Sandfort and Moulton, implementing actors can have different perceptions of policies and their actions can reshape the logic model (Sandfort and Moulton, 2015). While it is important to use the best knowledge available when confronting a policy problem, program managers can develop intuition about what ideas will work in the field (Sandfort and Moulton, 2015). Staff perceptions and actions in the USFS recreation fee program can provide a deeper understanding of the implementation field and perceived impacts on the target population.

For the USFS, the target population is recreationists. This can be anyone looking to recreate on National Forest System lands, whether they are frequent users or visiting for the first time. In this sense, the target population is broad, as people come to national forests with different backgrounds, experience, and purposes. The REA and USFS directives make assumptions about the behavior of this target audience. The policies assume that recreation sites and visitor experiences will be enhanced with user-generated cost recovery. Furthermore, the policy assumes the public would benefit from a range of development, recreation opportunities, and fee levels. The effectiveness of the USFS recreation fee program in achieving its intended goals of reducing the maintenance backlog and improving visitor experiences can be understood by looking at the visitor data and previous studies on recreation fees. Generally, at USFS-run sites

the public is satisfied with the facilities and services at sites and the fee they pay (USDA Forest Service, 2020). However, the funding provided through the fee program is not enough to cover the increasing costs of maintenance, which has amounted to a backlog of over $5 billion (USDA Forest Service, 2019).

USFS recreation fee staff have a limited capacity in the strategic action field, given the constraints on funding and staffing; this fits the necessary limited organization resources of the strategic action field framework. There is uncertainty about the amount of discretion used by staff and degree of problem-solving. It is important to understand the limitations on staff's ability to develop solutions to in-the-field problems, as this could have implications on the public experience and access. The discretionary decision-making by street-level workers is a theme examined in the first objective of this study, which examines staff priorities and decisions in recreation fee implementation.

C. Public Perception and Equity Literature

Given the public nature of federal land management and recreation, research has examined the implementation of recreation fees, public sentiment, and social impacts of collecting fees. This section summarizes selected literature on public perception of recreation fees and potential for displacement of low-income and historically marginalized recreationists. Literature was selected based on relevance to U.S. public land management agencies.

C1. Studies on Public Perception of Recreation Fees

The public's perception of fees has evolved over time as recreation fees have become more common and normalized on public lands (Absher et al., 2008). During the Rec Fee Demo

Program, many recreationists did not support fees, claiming they are undemocratic, unconstitutionally charge a fee for a tax-based service, privatize public lands, and limit access for certain populations (Marx, 2002). Those who supported fees during the pilot program argued that collecting site fees could increase equity by putting the cost burden on users of recreation sites (More, 1999).

Studies that have attempted to identify public sentiment on recreation fees find, in general, mixed opinions and understanding of recreation fees (Bowker et al., 1999). Specifically, visitor income has been studied as a contributing factor to general opinions about recreation fees. Surveys from the Flaming Gorge National Recreation Area within Ashley National Forest found that lower income users are less favorable of the fee program compared to higher income visitors who are more likely to view the fee program positively and perceive fees as too low (Fix and Vaske, 2007). This suggests a positive correlation between income and support for recreation fees (Bowker et al., 1999). Research indicates that income levels play a significant role in preferred funding policies; higher income respondents prefer to fund recreation sites by paying fees, while lower income respondents prefer to fund recreation sites by paying taxes or volunteering their time (More and Stevens, 2000). Support for fees has also been attributed to visitor behavior; local groups who support increased fees view them as a strategy to discourage "undesirable" visitors from recreating in those forests (Fix and Vaske, 2007).

Survey research has also indicated that communication of recreation fee benefits is an important factor to increase public support for fees (Bengston and Fan, 2002). Public support for fees can be gained by communicating ideas that fees are necessary, generate benefits, are affordable, and fair. On the other hand, people who feel fees are unfair, costly, and confusing are less likely to support recreation fee programs (Bengston and Fan, 2002). While the REA and

USFS policies require communication of fee benefits, the effectiveness of this communication in impacting the public's perception of recreation fees has not been documented.

C2. Equity in Recreation

Environmental justice has introduced the concept of equity in land use (Tarrant and Cordell, 1999). Environmental equity scholars suggest that natural resources (e.g., wilderness areas and national forests) are societal goods that should be distributed equally without regard to characteristics such as socioeconomic standing (Floyd and Johnson, 2002). For those who live near recreation sites, both positive and negative externalities can exist. For example, local populations may experience negative impacts from an increase in tourism, traffic, and site crowding. On the other hand, living near recreation sites can be desirable and improve quality of life depending on site characteristics (Tarrant and Cordell, 1999).

Studies have consistently shown a disparity in visitation by traditionally marginalized populations on national forest lands (Winter et al., 2020). Visitation to national forest lands is more likely by white, male, and elderly populations (Winter et al., 2020). A lack of information was commonly cited as a reason for not visiting , with the most trusted sources of information being the internet and friends and family (Winter et al., 2020). This indicates that information is a vital component in who visits public lands. Furthermore, low frequency of visits was attributed to a lack of time, money, transportation, and distance of sites (Winter et al., 2020), suggesting resources are another factor in determining who visits USFS sites.

Visitor opinion on recreation fees has been shown to influence site choice, as the more positive view a person has towards the fee program, the more likely they are to visit those sites; the same can be assumed for the opposite opinion (Miller et al., 2018). Beyond fee studies

examining public opinion, researchers have also attempted to determine whether fees present a financial barrier to potential public land users. A general sentiment has been found among United States residents that fee prices are too high and might present a barrier to entry for some users (Ostergren et al., 2005). Surveys in Oregon and Washington have found that low-income users are more price sensitive to recreation fees, given the existing foundational cost of recreation (Burns and Graefe, 2006). Furthermore, recreationists that are not considered high-income, who are most dependent on low-cost recreation opportunities, exist on the margin of recreation and will likely be most impacted by fees, compared to the upper class which fees have a minimal impact on (More, 1999). These visitors, on the margin, have some disposable income but are on the edge of being able to pay a nominal extra fee and are therefore more likely to be displaced by increasing fees than higher-income recreationists (More, 1999). Research examining the potential financial barrier created by charging fees suggest limitations in using on-site visitor information for data collection; users that are priced-out before visiting sites are not adequately represented, given recreation 'customers' are typically from the upper and middle class (More, 1999). This leaves uncertainty about the level of displacement that can be attributed directly to the financial burden of recreation fees.

To address this, researchers have attempted to determine whether fees disproportionately impact people of low socioeconomic status by comparing the visitors who visit comparable fee and non-fee sites. Low-income recreationists are less likely to visit state and national parks compared to middle- and upper-income groups to begin with (More and Stevens, 2000). Furthermore, significantly more low-income users were recorded recreating in areas without fees compared to sites with fees (Lamborn et al., 2017). There is evidence that fees are attributable to income differences observed at different recreation areas as low-income users travel just as far,

and up to three times further, to reach non-fee areas suggesting fees could directly displace low-income users (Lamborn et al., 2017). Additionally, low-income users are more likely to change behavior due to the presence of fees, compared to higher income recreationists; as shown by a hypothetical $5 increase in recreation fees which was predicted to impact access for about 49% of low-income recreationists, who anticipated altering their behavior due to fee increases (More and Stevens, 2000). The potential inequitable consequences of recreation fees are an important discussion of rights (More, 1999). Fee critics argue that if recreation fees prevent access to public lands, then the democratic principles of the federal agencies charging them are violated (More, 1999).

For use of recreation fee revenue, literature suggests public preferences and concerns about fees. Visitors to wilderness areas could be concerned about overdevelopment of recreation sites; as more funding is available, sites could become less primitive and more developed (see Appendix D) (Watson and Herath, 1999). This is inferred from visitor's preference to see fees being used for maintenance (e.g., painting, cleaning, repairing) at least equally or more than adding new facilities (Watson and Herath, 1999). An analysis of implementation reports during the Rec Fee Demo Program found that public land agency programs did not adequately address this public concern of development in their program plans (Martin, 1999).

A study during the Rec Fee Demo Program found similar results in that recreation site visitors are most supportive of fee sites that provide services such as campgrounds, boat ramps, and special exhibits (Bowker et al., 1999). Interestingly, visitors are least supportive of fee revenue being used for the provision of basic services such as bathrooms and picnic areas which could be attributed to the commonality of free public restrooms and rest areas (Bowker et al., 1999).

Regarding USFS revenue, the public prefers recreation revenue to maintain and protect the natural environment at recreation sites. The least supported use of fee revenue is increasing the number of amenities at recreation areas (Burns and Graefe, 2006). Outdoor recreation is generally valued for site characteristics; site visitors value facilities, but do not particularly value the presence of many over a few (De Valck et al., 2017). While the USFS has implemented procedures to guide development of recreation sites, there is limited research on how staff uses these procedures and whether they are effective. Policymakers and forest managers should understand recreationist perspectives and behavior to best optimize resource usage (Christie et al., 2007).

D. Research Gaps

The REA, USFS policies, and implementation frameworks provide useful context for understanding recreation fee implementation, however gaps in research still exist. Few studies examine USFS staff decision making during implementation of the recreation fee program, or their perceptions of the program. Staff perspectives on implementation and visitor impacts are important to examine because policy implementers can develop an intuitive sense of the implementation field (Sandfort and Moulton, 2015).

Staff must make decisions to the best of their ability, using a combination of policy and social norms in the field. However, there are many actors and factors to consider in these decisions, leading to complex decisions for staff with limited resources and time. Within the Forest Service, the implementation of the REA has historically been decentralized, allowing site-level management to base fee procedures on local conditions and informal research (Absher et al., 1999). During the implementation process, program managers can develop the ability to

determine what policy ideas will work in the reality of resource constraints, limited staffing, and the dynamics of the implementation field (Sandfort and Moulton, 2015).

Implementation of the Rec Fee Demo Program within the USFS was reviewed in a survey of national forest managers and their use of information when developing fee program plans. This survey found that the majority of site managers use information that is easily accessible, anecdotal, and informal (Absher et al., 1999). Whether these sources of information are still used by recreation fee staff under the REA is uncertain.

Research has also focused on identifying factors that influence the decision of site managers to implement fees. Forests that adopted fees in the years immediately following the Rec Fee Demo Program tended to have more cities with populations greater than 50,000 in a 150-mile radius, which could increase potential revenue at these sites compared to areas with lower local populations. This indicates that managers of these sites may be less concerned about public backlash or access (Espey, 2005). Managers that chose not to adopt fees show minor sensitivity to nearby fee substitute sites, which would decrease their potential revenue from fees (Espey, 2005). The decision to begin charging fees appears to be attributed somewhat to cost and revenue concepts, and anticipated level of public backlash. While finances are important in determining the need for recreation fees, other information sources and considerations might be used by recreation fee staff when implementing the recreation fee program.

Previous research has focused on recreationists to define impacts from a user perspective, however few studies have attempted to determine impacts from the perspective of USFS staff. A survey of USFS Region 6 staff examined staff perceptions of the Rec Fee Demo Program. This study found that non-recreation staff in the USFS report low support for the fee program and

both recreation and non-recreation employees are concerned with the potential for user displacement caused by fees (Robinson et al., 2007).

By examining information sources, formal and informal operations, and staff perceptions of recreation fee program impacts, this study contributes to a more comprehensive understanding of the dynamics of the USFS recreation fee implementation field.

Chapter III: Methodology

A. Case Study Design

This study uses a multi-case approach to examine recreation fee policy implementation, with each case representing an individual national forest. This was an appropriate approach because case studies provide an opportunity for in-depth analysis and understanding of processes compared across settings (Miles and Huberman, 1994). Given the variety of national forest geographies, activities, and visitor-types, this approach allows for an analysis of the similarities and differences in staff perceptions and implementation across different National Forest System lands. The REA and USFS directives govern all cases in this study, which permits a comparative examination of how individual forests and staff members interpret the policies and implement them given differing forest needs.

Four cases were selected for this study based on the following criteria: existing recreation fee program with both fee and non-fee sites, visitation level, visitor incomes, and amount of annual recreation fee revenue. These criteria were chosen to ensure the cases would represent both a range of visitors and fee programs; Table 2 displays the cases across selection criteria. Median visitor income was determined using data from the most recent NVUM survey at each forest and is ranked high, medium, and low as a means of comparisons between the cases. The median visitor income, calculated from the NVUM, was used in case selection and a more in-depth examination of visitor income is discussed in later sections. Including a range of visitor income is important to ensure that cases represent visitors with varying needs and the challenges forests might face in meeting these needs. Furthermore, this variation in visitor income may help understand how implementation styles may differ, as well as the perceived impacts of fees on different groups. Revenue from fees was determined by the most recent Annual Accomplishment

Report published by each forest's Supervisor's Office. Revenue from fees is not reported in exact dollars to maintain anonymity. Forest revenue is grouped into categories starting with low revenue of less than $500,000, followed by medium revenue between $500,001 - $1,000,000 and high revenue of more than $1,000,000. Lastly, the forests in this study are located in three separate regions in the USFS. Given the policy responsibilities of regional leadership within the USFS, a variety of regions were selected to best determine the similarities and differences on this level.

Table 2: Case Selection Criteria

	Forest A	**Forest B**	**Forest C**	**Forest D**
Visitation Level	*Low* 0 – 1 million	*High* 5 million +	*Medium* 1 – 5 million	*Low* 0 – 1 million
Median Visitor Income	*Medium* $75,000 – 99,999	*Medium* $75,000 – 99,999	*High* $100,000 – 149,999	*Low* $50,000 – 74,999
Annual Program Revenue	*Medium* 0.5 - 1 million	*High* 1 million +	*Low* 0 – 0.5 million	*Medium* 0.5 - 1 million

Cases are the unit of analysis where a boundary, such as the geographical and organizational definition of a forest, determines what is a focus of the study and what is not (Miles and Huberman, 1994). To maintain anonymity in this study, the cases are referred to as Forest A, Forest B, Forest C, and Forest D. To be included in the selection process potential cases were required to have an established recreation fee program. Forests without active fee sites and staff were not considered for this study. Furthermore, forests needed to have established non-fee sites to make comparisons between perceptions and visitation at this level. Potential cases were evaluated to ensure updated and available NVUM data and Forest Accomplishment Reports. The NVUM survey was a useful tool in analyzing the recreation fee program on national forests and understanding visitor demographics and perceptions. While NVUM procedures are consistent for

each sample period, this study aimed to represent an array of site type, as there are different SAF and EAF collection methods. Selected cases were reviewed to ensure a breadth of site type was included in the data.

B. Existing Data Review

To effectively understand each case and its recreation fee program, existing data and documents were reviewed. The information used came from forest NVUM surveys, Annual Accomplishment Reports, Triennial Reports to Congress, and Congressional Appropriations documentation. The purpose of this data analysis is to provide context to interviews by using visitor and forest information; see Table 3 for a breakdown of this data and how it was used.

NVUM data was analyzed as a forest-wide report of visitor demographics and satisfaction. Visitors who participated in the NVUM survey self-selected their income bracket. There are six income brackets visitors could select from, ranging from under $50,000 to over $150,000. Visitors are also asked about their satisfaction with their recreation experience, facilities, and other aspects of their visit. Not all sites are surveyed during the NVUM process, however the report is considered representative of the forest (USDA Forest Service, 2018). Data from the NVUM is limited to making forest-wide conclusions given the limited number of recreation sites surveyed and amount of data collected at each site.

The Annual Accomplishment Reports, Congressional Budget information, and Triennial Congressional Reports were analyzed to understand the development of recreation fee implementation within the USFS and at the forest level. This data was retrieved from public online sources and established a baseline understanding of the funding mechanisms of the recreation fee program and development of fees over time. Furthermore, Forest Accomplishment

Reports were used to gather information on specific cases, in terms of their program revenue and expenditures. This information was summarized and compared across forests.

Information on local populations were also determined to help contextualize the settings of each case. To determine local demographics, county-level data from the U.S. Census was used based on the counties each forest occupied. The use of county data is not a complete estimate of local population demographics as forest access is not evenly distributed across counties, however these surrounding populations are the most detailed estimate the U.S. Census provides.

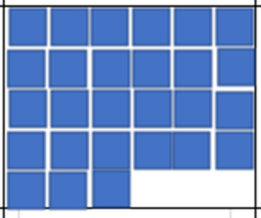
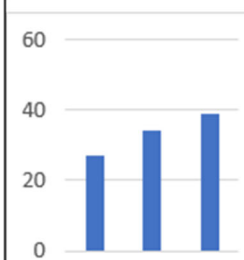
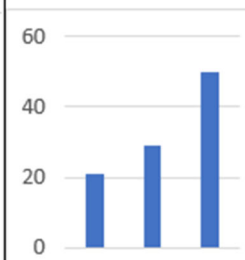
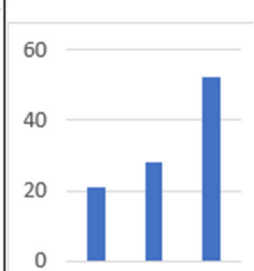
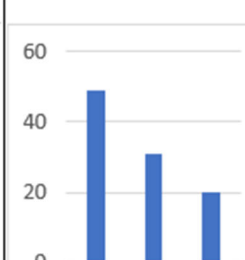
Table 3: Existing Data Use

Source	Forest A	Forest B	Forest C	Forest D
National Visitor Use Monitoring Surveys	2017 Report	2017 Report	2016 Report	2019 Report
	Gather information on case selection criteria Calculate case characteristics on visitors - Visitation patterns - Visitor demographics - Visitor satisfaction			
Annual Forest Accomplishment Reports	2020 Report	2013 Report	2020 Report	2017 Report
	Gather information on case selection criteria Calculate case characteristics on revenue and expenditures - Forest priorities - Size of recreation fee program			
National forest Land Areas and U.S. Census	2020 Reports			
	Calculate local population characteristics - Determine counties occupied by national forests (Land Areas managed by the USFS) - Determine median household income in local counties (U.S. Census)			
Triennial Reports to Congress	2018, 2015, 2012 Triennial Reports			
	Calculate growth of visitation and funding			
USFS Budget Justification	2021 Budget Justification			
	Contextualize agency-wide recreation fee program			

C. Case Characteristics

This section presents characteristics of the four cases in this study. Information on visitors, local areas, and forest recreation fee programs are provided to provide context for comparisons between the cases (see Appendix G for more detail). The characteristics are a result of case selection and are derived from the existing data review. Table 4 visually displays some key characteristics of the cases and allows for comparisons on visitation, visitor demographics, and program funding.

Table 4: Case Characteristics

	Forest A	Forest B	Forest C	Forest D
Visitation Level (One square is approx. 500,000 visitors)				
Visitation by Site (%) General Day use Overnight				
Median Household Income of Forest Counties	$50,000	$85,000	$80,000	$63,000
Visitor Income (%) (left to right: under $50,000; $50,000-100,000; over $100,000)				
Program Revenue (%) SAF/EAF Special use				

To maintain anonymity, characteristics are represented visually, with limited use of numbers. Forests A and D host fewer visitors, compared to Forests B and C, which see high day-use visitation compared to general forest users and overnight visitation. Forests B and C also share similar local income levels, with median household incomes of the surrounding counties of about $80,000. These forests also have users with higher incomes compared to the other cases. For recreation fee revenue sources, Forest A and C receive most revenue from SAF and EAF sites, while Forests B and D collect about half of their fees from special recreation permits, indicating a large program for specialized recreation on these forests.

Forest A

Forest A is located in USFS Region 6 bordering other national forests and a popular national park. Known for beautiful lakes and forests, Forest A attracts visitors who hike, camp, and view the forest's natural features. This forest is comparatively rural as it is not located near a large urban center. This forest has low visitation and receives the majority of recreation fee revenue through SAF and EAF sites, with less than 1% of annual recreation fee revenue from special recreation permits. It is estimated that Forest A had less than one million annual visits, with about half of these visits on the general forest area, indicating that users frequent dispersed, non-fee areas compared to day use sites and overnight sites, which together account for almost half of visitation.

The median annual income of visitors to Forest A was reported as $75,000 - $99,999. In comparison, the median household income for the counties Forests A occupies is around $50,000. In other words, visitors to Forest A are generally wealthier than the local population.

Overall, about three-quarters of Forest A visitors were very satisfied with their recreation experience. The only element surveyed that visitors felt could be improved was restroom

cleanliness at developed day sites and undeveloped general forest areas. Forest A spent about 85% of its annual fee revenue on the reported year. The vast majority of these expenses were on visitor services and repair and maintenance.

Forest B

Forest B is located in USFS Region 2 and is a comparatively large recreation program, seeing the most annual visitation of any case. The majority of these visits were estimated to be at developed day-use sites. Visitation to general forest areas and developed overnight sites accounted for about 10% of usage. The median annual income of visitors to Forest B is $75,000-99,999. Local median household income for the counties of Forest B is around $85,000, the wealthiest of all cases. Forest B is mountainous and known as a ski destination and popular hiking and camping area. This forest is located along a major highway near an urban center and other national forests.

Overall, more than 80% of Forest B visitors were very satisfied with their recreation experience. Forest B had almost 90% of visitors feel very satisfied with their experience. Forest B receives high annual revenue compared to other cases, with over half from special recreation permits. Forest B spent about 60% of their annual revenue, with a large portion of expenses on visitor services and repairs and maintenance.

Forest C

Forest C is in USFS Region 6 and has a comparatively medium visitation rate, with largely day-use visitation. The median annual income of visitors to Forest C is $100,000 - $149,999. The median household income of the counties Forest C occupies is $80,000, representing one of the wealthier population bases in the study and highest visitor income. This forest is frequented as a

skiing, climbing, and hiking destination due its forests and mountains. This case is located near an urban center and popular tourist destinations.

Overall, about 85% of Forest C visitors were very satisfied with their recreation experience. Forest C has comparatively low revenue from the recreation fee program, collecting less than $1 million in annual revenue and over 90% of this revenue is from SAF and EAF sites. Forest C spent over 100% of their annual collected revenue, with expenses totaling almost one and half times their annual reported revenue. This indicates that Forest C used fee revenue from previous years that had been rolled over for future projects. The majority of these expenses were on visitor services and repair and maintenance.

Forest D

Forest D is located in USFS Region 4 and receives the lowest visitation of these cases. The majority of these visits were estimated to be on the general forest area. The median annual income of visitors to Forest D is $50,000 - $74,999, the lowest of the cases. Median local household income is the second lowest comparatively, at an estimated $63,000. Forest D is known for visitors who enjoy hiking, hunting, and the river scenery. This forest is in a rural area amongst other popular forests, mountains, and wilderness areas.

Overall, about 85% of Forest D visitors were very satisfied with their recreation experience. Comparatively, Forest D has medium annual revenue from recreation fees. Slightly over half of Forest D recreation fee revenue is collected from special recreation permits, with SAF and EAF sites accounting for about 40% of annual revenue. Forest D spent almost 80% of their annual revenue with the majority of expenses on visitor services and repair and maintenance.

D. Interview Methodology

This study employs a qualitative approach to interview data collection to capture the implementation decisions made by USFS staff in the recreation fee program and understand their perceptions of benefits and consequences of recreation fees. By interviewing staff at different implementation levels, the similarities and differences across the policy levels within each forest were captured. Semi-structured interviewing was used because this methodology allows a researcher to study concepts from the perspective of participants (Kvale, 1996). This study uses interviews to explore information on a factual and meaning level, where the participant can provide knowledge through explicit descriptions and the researcher can analyze these responses and their meaning (Kvale, 1996).

An open-ended, semi-structured interview style was used, which involves asking pre-determined questions under a central theme while leaving space for further questions if prompted by respondent answers. This form of qualitative data places an emphasis on people's lived experiences and connecting that to the world around them (Miles and Huberman, 1994). Given this study involved multiple cases, a level of standardization in research instruments allowed for comparable findings (Miles and Huberman, 1994). To this extent, the interview guide remained the same for all participants across every case, with room for follow-up questions to best clarify and understand the live experiences and connections participants discussed. The interview guide for this study was developed through a breakdown of each research question and was informed by existing research and recreation fee policies (see Appendix H). Forest Service social science researchers advised on the development of the interview guide to ensure proper terminology and verbiage were used. The purpose of interviews was to gain an understanding of how USFS staff implement recreation fees and explore the perceived impacts of recreation fees on visitors to

national forest lands. The research methodology and interview guide were approved by the University of Washington's Human Subjects Division (IRB ID: STUDY00013866).

Generally, to identify objectives of charging fees, staff were asked about the goals and benefits of charging fees on a forest and site-level and the process for deciding to make fee program changes, which included questions regarding the information used to make recreation fee program decisions and level of public involvement. To understand staff perspective on visitor experience and access, staff were asked about how they thought the recreation fee program impacts visitors and how they perceived the public's attitudes towards fees. If a respondent answered a question from the interview script in another response, it was not reiterated, to avoid spending time on a topic that was already discussed. Note taking occurred during interviews to keep track of information and revisit important topics.

Interview participants were first identified through public USFS websites and documents that provided names and emails of recreation fee program staff members. Potential participants were contacted via email which included information about the study and why they were being asked to participate. Thirteen interviews were conducted, ranging from two to four staff members per case. All conversations were one-on-one and conducted virtually through an online platform or phone call. Interviews were aimed to reach staff on each forest at a site-level, district-level, and forest-level. Furthermore, as many districts as possible were included in the scope of this study to ensure staff perceptions and implementation on each forest were as accurately represented as possible. Staff with differing levels of experience in the USFS and recreation fee program were sought to gather a range of perspectives. See Table 5 for descriptions of interview participant experience and role across the cases. The order of GS level, districts, and experience are ordered from lowest to highest to reduce the exposure of participant

identities. Furthermore, participants were specifically asked the number of years they had been employed in their current role and districts, however GS level is an estimate based on the role participants named in the interview.

Prior to beginning an interview with participants, they were provided verbal information on the purpose of interviews and the process to expect. All identifiable information on participants, including their role and forests, were guaranteed to be omitted from the transcripts and thesis as much as possible to ensure anonymity. During interviews, participants were asked if they recommended other staff members from their forest be contacted about this study and staff was also contacted through this method. Interviews lasted about one hour and were conducted by the author as the sole interviewer. Interviews were conducted until all potential participants from each case were identified and there were no identified applicable staff willing to participate; the recruitment and interview period lasted about five months.

Table 5: Case Interviews

	Number of Interviews	**Level in USFS**	**Unit**	**Years in Role**
Forest A	3	GS 9, 11, 12	District 1, District 2, Forest	7, 8, 10
Forest B	4	GS 9, 11, 13	District 1, District 2, Forest	2, 5, 11
Forest C	4	GS 9, 11, 12	District 1, District 2, District 3, Forest	2, 3, 4, 8
Forest D	2	GS 11, 12	District 1, District 2, District 3, Forest	< 1, 5

E. Qualitative Analysis

All interviews were audio-recorded with consent of the participant and transcribed in full. Interview audio recordings and transcripts were stored on a password protected drive and used solely for data analysis. After multiple read-throughs, initial summaries of the ideas and sentiments presented in each interview were developed. This initial analysis step, a form of *data*

reduction, involves writing out summaries and themes noticeable in the data (Miles and Huberman, 1994).

These summaries were categorized, labeled, described, and further delineated into subcategories to provide a more nuanced examination of the data (see Appendix I). Coding is used in social science research to link participant responses to concepts and categories (Weiss, 1995). A *code* is a word or phrase that captures an attribute or summative essence for a portion of data (Saldana, 2013). The inductive coding technique used in this analysis is useful to condense data into a summary format, establish links between research objectives and findings, and develop theories about the structure of processes and experiences in the data (Thomas, 2006). Codes were organized in a *codebook,* which is a compilation of codes, descriptors, and examples (Saldana, 2013). This codebook was continually refined throughout the analysis process to ensure categories and subcategories accurately reflected the data. Data analysis was aided by the qualitative analysis software NVivo (Version 1.6.1). NVivo was primarily used in the organization of interview transcript data and development of initial codes.

The codes present in the data were developed into categories and sub-categories which were then compared and consolidated to develop themes and concepts throughout the whole dataset (Saldana, 2013). This analysis extends from individual codes into general assertions and theories about the data (Saldana, 2013). The coding process led to a list of categories and sub-categories, from which their meaning and relevance to each research question was examined allowing for *pattern coding*. Pattern codes identify themes and explanations present in the data by grouping summary codes into smaller constructs (Miles and Huberman, 1994). To ensure codes were applied consistently throughout the data, code labels and descriptors were developed and referred to during the coding process.

The following chapter presents the categories and subcategories identified in the data and identifies patterns across the different cases and roles. These findings are supported by illustrative quotes from participants.

F. Study Challenges and Limitations

One limitation to this study is in the case selection. By choosing only four forests to examine implementation of the USFS recreation fee program, the conclusions that can be drawn are limited. These cases, while selected with thoughtful criteria, are not holistically representative of all national forest administrative units. With this being said, individual attributes from these forests can be related to others, therefore the exploratory information and comparisons from interviews is useful. The findings in this study cannot be generalized to the USFS as a whole, as four cases is not a large enough sample to do so. Furthermore, these cases are geographically located in the Western United States and are not representative of other United States regions.

Second, interviewing USFS staff presented limitations and challenges. As representatives of a federal government agency, interview participants may have felt constricted in their ability to respond to interview questions with a full and honest opinion. While anonymity was assured before the interview began, some limitations may be present in responses from current staff on forests. Furthermore, these staff members may have a bias in the perceptions of their programs and less willingness to accept and display potential faults.

Lastly, recruiting potential interview participants was challenging. Many national forests are understaffed with large workloads and finding recreation staff members willing to share their experiences and perceptions was difficult. Potential participants for this study were contacted three times or until a response was received. Some staff expressed they did not have the capacity

to participate in interviews or preferred their unit to remain focused on job tasks. This resulted in fewer interviews than preferred and an inconsistent number of interviews across cases, reducing comparability. Managerial staff on the site-level, around GS-9, were interviewed, however this study is limited by not interviewing staff who have a larger and more direct role in collecting fees and maintaining recreation sites. A longer interview recruitment period could improve the probability of staff being able to participate in interviews, from a workload perspective.

Chapter IV: Results

This chapter displays results from the analysis of interviews with USFS staff, organized by research question. Each section presents the research question, the main themes and subthemes identified, and supports these findings with interview quotes. The frequency of participants who identified a category is represented in a table at the beginning of each section. The themes and subthemes are highlighted with quotes throughout the chapter, with explanations of their application. These categories are used to make comparisons between the cases and staff roles.

A. Staff-Identified Policy Objectives

Research Question 1: What recreation fee policy objectives are prioritized by USFS staff?

To understand recreation fee implementation by USFS staff, interview participants were asked to identify the main goals of charging fees on their forest, as shown in Table 6. Five main objectives were consistently mentioned by respondents: service provision, staff, maintenance, program enhancement, and resource protection. Within each of these main themes, subcategories arose from staff perceptions of these objectives. There is some overlap in the use of these categorized objectives when implementing recreation fees. The following sections provide a more detailed description of the objectives discussed by participants and the ways in which they provide a benefit to the forest.

Table 6: Frequency of Staff-Identified Policy Objectives

Main Objective	**Forest A** n=3	**Forest B** n=4	**Forest C** n=4	**Forest D** n=2	**All Forests** n=13
Services [a] Services and amenities provided to visitors.	100%	75%	100%	100%	**92%**
Staff [b] Use of staff labor and presence to achieve objectives.	100%	50%	100%	100%	**85%**
Maintenance [c] Use of recreation fee revenue to maintain sites.	66%	50%	75%	100%	**69%**
Enhancement [d] Use of recreation fees to enhance the fee program.	33%	25%	100%	0	**46%**
Resource Protection [e] Use of recreation fees to protect the natural environment.	33%	50%	0	50%	**31%**
a. (1) overlap of services and other policy objectives, (2) staff perspective on required services compared to services that benefit visitors, (3) types of services offered, (4) visitor expectations for services and facilities, and (5) resource protection benefits of services.					
b. (1) service objective to the public and (2) natural resource protection.					
c. (1) complete general and deferred site maintenance needs, (2) trail and natural environment maintenance, and (3) how maintenance needs change across different sites.					
d. (1) increase long-term sustainability of the recreation fee program and (2) support low-revenue sites on the forest.					
e. (1) invest in resource protection, (2) how resource protection changes across different sites, and (3) strategies presented by staff for resource protection.					

A1. Services

Almost all of the participants identified providing services and amenities as a main goal of charging fees on a forest. Service provision is a tool in resource protection as restroom facilities, tent pads, and trash receptacles all help decrease the impact humans have on the natural environment of recreation sites. This section discusses the types of services, staff perspectives, and priorities in implementation.

A1.i. Service Overlap

Services, staff, and resource protection are categorized separately in the findings as some interview respondents directly made this connection, while others did not. Additionally, some respondents framed hiring staff as a means to achieve a service objective, given that staff provide a service to visitors through information, cleaning, and maintenance. For this analysis, staff is identified as its own objective. Maintenance of sites and facilities is a cost associated with service provision, as in the case of physical infrastructure. Some respondents identified maintenance with a broad scope while others provided specific maintenance costs that fees cover. These are discussed separately from service provision due to the differences of seasonal operation of facilities and the long-term scope of maintaining them. Lastly, these categories require their own funding allocation and staff reflected this in their responses. A staff member described the interactions between these objectives:

> "The main goal of charging a recreation fee is so that the Forest Service can continue to provide services to the public and it's all wrapped up in everything from services provided to the public, but there's a fair bit of resource protection that kind of goes in there as well. I mean, when you're talking garbage, obviously resource protection is a big reason we're collecting garbage but it's also for user experience and user convenience as well."

A1.ii. Beneficial Services and Required Services

When discussing service provision as an objective of charging recreation fees, two ways of framing became apparent. First, some recreation staff members spoke of public services as an avenue to improving user experience on the forest. On the other hand, some staff members framed services as a requirement under REA, which were necessary to achieve another objective. A participant identified the goal of recreation fees as providing a quality recreation experience, through services and maintenance:

> "The main goal from my perspective is to help maintain those sites - those specific fee sites - and provide a quality recreation experience for the individuals who camp there. That's everything from pumping the toilets to purchasing picnic tables to maintenance to cleaning."

This difference in framing was not case-specific and appeared to be a perspective of individual staff members.

A1.iii. Types of Services and Amenities

Amongst all participants who discussed service provision as a policy goal, seven different services and amenities were identified, with the greatest focus on providing restroom facilities. Under the REA, six amenities are required to charge a fee at a day-use recreation site. Of these amenities, staff placed the greatest emphasis on restroom and garbage services. These two services were most directly connected to a positive user experience and resource protection. Garbage service and restrooms appeared to be crucial in protecting the environment and improving visitor experience. Only a few participants mentioned other services, such as picnic tables, fire rings, signage, and security.

A1.iv. Expectation of Service Provision

Over one-third of participants specifically discussed the expected level of service provision at recreation fee sites. When discussing services, participants commented on the specific use of fees to provide services that meet the public expectation for recreation sites. The level of public expectation was not consistent across all interviews. Some participants directly expressed the expectation for site and restroom cleanliness while others discussed visitor expectations as a broader concept. Fees appear to benefit recreation sites and visitors by allowing services to remain clean and up to a certain standard, as one participant pointed out, "the public expects a nice site when they come in and those fees really help us keep it that way." Another

comparison drawn by staff was between sites in the fee program and sites that are dispersed, without fees:

> "Compared to our other sites that don't have fees associated with them, they [fee sites] do have a level of cleanliness and assurance that we are going to clean them. Basically, we're trying to keep it at a higher standard than what it would be without those fees put in there."

A1.v. Services for Resource Protection

Staff from all forests specifically commented on the need for services and amenities to help protect natural resources. Notably, these comments were primarily made by staff in higher levels of each forest with three-fourths of comments on this connection made from staff working in the Forest Supervisor's Office.

A2. Staff

A large portion of respondents expressed that a main goal of charging recreation fees was to hire staff. Many participants who identified hiring staff as a policy objective discussed the benefits staff provide at recreation sites. A few examples which cross other objectives include maintenance of facilities, services to visitors, and resource protection work. The ability to hire staff, despite crossover with service provision and maintenance, is a separate category due to the specific funding mechanisms recognized by participants. While staff play a role in both objectives, paying staff is a separate cost which must be considered given the limited budgets on each forest.

Interview respondents made it clear that hiring staff was a crucial part of operating and maintaining recreation sites. Staff described how "the bulk of our work is accomplished by them and they're the ones doing the trail work, they're the ones cleaning the restrooms." The necessity for recreation staff on-site was consistent across all cases, however participants identified

different objectives associated with hiring seasonal staff. The following sections discuss two perspectives on the benefits of hiring staff: to provide a service to the public and natural resources.

A2.i. Service Objectives of Staff

Respondents across all cases identified many ways in which hiring staff can provide a service to the public. Staff can be a resource to help maintain services and uphold the cleanliness expected, as discussed above. In this regard, the ability to hire staff was perceived as a vital part in providing services and maintaining them, but staff also provides a direct benefit to the public as they "keep a presence out there to talk to folks, to provide that interface, public contact." Furthermore, hiring staff can be an objective to help implement other services offered, as a staff member commented, "we're able to hire seasonal employees - because of the fees that are collected. The reason that we hire the seasonal employees is to provide those services for the people."

Participants frequently mentioned the high level of maintenance and management expected of recreation fee sites. Many participants, solely from Forest C and Forest D, spoke about the need for staff to uphold this expectation and the inability to operate recreation sites without personnel. As one staff member put it plainly, "those [employees] are all paid for out of those fees and so we wouldn't be able to have that level of staff to manage that highly used… resource without fees."

A2.ii. Natural Resource Objectives of Staff

Staff appear to benefit natural resources through trail work and maintenance that help keep the land protected from recreational use. A participant from Forest C noted the widespread benefit of staff as "you find a trail crew to work on a trail that the fee sites are sort of giving

access to, then that impacts not only just the people using the fee sites but other people using the forest and accessing those trails through non-fee sites too." Staff from Forest D agreed that they're "able to pay for the people to manage those resources as well, so we've got patrol out monitoring to make sure pictographs, and waterfall trails, everything else, the resource is treated right." These perspectives highlight the ways in which staff can spread across multiple user activities and both fee and non-fee sites, creating a more widespread benefit for the resources and the public. Similar to resource protection and service provision, three-fourths of the remarks on resource protection as a result of staffing was from employees of the Forest Supervisor's Office.

A3. Maintenance

Almost two-thirds of interview respondents specified site and facility maintenance as a goal for charging recreation fees. Maintenance varied from general upkeep of facilities to specifically discussing the maintenance of vehicles and long-term costs associated with this maintenance. Individuals from all cases mentioned some form of maintenance as an objective for charging fees. This section presents two categories of maintenance discussed by staff and the ways in which this objective can change across the forest.

A3.i. General and Deferred Maintenance

The importance of fees in helping address general and deferred maintenance was emphasized, as put by a participant from Forest B, "all the fee revenue gets turned around and put right back into what we call deferred maintenance - heavy, landlord maintenance into the developed sites." This sentiment was consistent across all cases, as reiterated by a response from a staff member on Forest C, who noted "that's the big thing, it helps us maintain the sites at a higher standard than they would be maintained if we didn't have that funding." Given the

emphasis on maintenance as an objective of collecting recreation fees, some participants noted the difference between sites with this funding, and sites outside of the recreation fee program.

A3.ii: Trail and Natural Environment Maintenance

Another sub-category of maintenance that was discussed is the maintenance provided to the natural environment, through care for trail systems, land rehabilitation, and ecosystem management. This maintenance of the natural landscape can be achieved through two mechanisms: permits to manage usage and funding for restoration work. The former strategy was explained by a staff member from Forest B who "looked to a fee for the permit to be able to provide the things we need. There's also a bunch of restoration work that will need to happen." Natural resource maintenance was discussed not only as a benefit to the land but also the public, as noted by staff on Forest C: "the main benefit to the public is that the maintenance, the opening of the trails, and the log-out, trail maintenance and all of that stuff is done through these fee dollars."

A3.iii. Site Differences

In contrast to previous objectives, maintenance was identified as an objective that changes depending on the site or forest area. In discussing how policy objectives differ across different sites, many respondents identified maintenance as a fluid policy objective. This indicates that the priority of maintenance as a use of recreation fee revenue is dependent on each specific site. Site characteristics that would determine a change in maintenance objectives differed across all respondents. For example, sites with higher vandalism would be more maintenance-focused due to a high need. In other cases, the amenities present at a site would dictate the priority level of maintenance work. Lastly, climate and weather were identified as

factors in whether maintenance was prioritized, as this can change the impact observed on infrastructure and trails.

A4. Enhancement

Almost half of interview respondents mentioned site enhancements and fee program sustainability as an objective of charging fees. Site enhancements were described as prioritizing long-term goals and financial sustainability.

A4.i. Long-Term Enhancement and Sustainability

Almost all participants from Forest C, more than any other case, commented on revenue generation for future enhancements and program sustainability. Generally, this category was created from responses that stated a goal of charging fees was to provide consistent revenue generation for future upgrades, enhancements, or heightening of sites. This category, unlike the others, is focused on longevity of recreation sites rather than seasonal operations. Revenue sustainability and site enhancements likely derive from the REA policy, which allows for non-expended fee program revenue to be carried into future fiscal years without appropriation. This gives forests the ability to build capital for future projects:

> "The main goal is generating revenue for us to be able to fund our recreation program… We try to keep that [fund] sustainable and not spend all of it, and so as we go out throughout the year and we're collecting money, it's primarily to hire folks to manage the recreation and then to also have improvements."

In this sense, maintaining a source of funding that is reliable and exceeds costs, allows the forest to operate as intended, with hiring staff and making improvements.

A4.ii. Supporting Low Revenue Sites

Some staff members commented on how high-use and high-revenue sites can provide funding for low-revenue sites, thus benefiting other areas of the forest. A staff member shared their experience with managing high earning sites that "generate enough fees to kind of carry some of the other sites on the other districts that will never make enough in fees to address their deferred maintenance needs." This revenue sharing was also identified as a benefit from staff on Forest C who noted that "you can use money from, more or less, a high use site for one that's not used as much because they're all within the fee structure." Forests A and C, both from USFS Region 6, were the only cases to note sharing of recreation fee revenue as a benefit of the fee program.

A5. Resource Protection

Around one-third of participants reported resource protection as an objective of charging fees. The benefit fees provided to natural resources was primarily discussed from higher-level staff on the forest, with three-fourths of resource protection comments occurring with participants from the forest-level.

A5.i. Resource Protection Investments

One common framing of resource protection objectives was in the ways recreation fee revenue is invested into the natural resources at sites. A staff member from Forest B commented on how visitor use of an area can cause resource damage and fee revenue can help:

> "we'll invest that money into restoring and enhancing resources. Maybe it's trails that have been degraded or people are going off trail and we have to rehab a trail that we don't want there, or a trail that is eroded because of poor signs."

These observations made a point for how charging fees can directly benefit natural resources, where a dispersed approach could cause damage. An example of this is shown in the quote below, where a staff member described how fees help the resource:

> "The difference between dispersed use versus concentrated use, by concentrated use you can organize the use and provide hardened surfaces, paved surfaces, tent pads, whatever the case may be, that hold up better to intensive use by the public, so it allows the public to come and enjoy their national forest without causing those resource impacts to the land. Of course, the fees are what allow that to happen."

A5.ii. Site Differences

The number of staff who identified resource protection as an objective of charging recreation fees increased when individual sites were considered over the fee program as a whole. For example, Forest C was the only case that did not specifically identify resource protection as an overarching goal of charging recreation fees, however these staff members identified resource protection as a potential goal for specific sites, dependent on individual site needs. This shift in objectives was credited to the unique landscapes of sites across the forest and changes in use from the public.

A5.iii. Strategies for Protection

Individual forests placed different priorities on resource protection. Forest B was the most focused on resource impacts from recreation. Three-fourths of participants from Forest B identified some form of resource protection as an objective of charging fees, while also recognizing the uniqueness of this goal from site-to-site. Staff on Forest B directly identified the goal of resource protection on a forest-wide scale:

> "The goals are to decrease those biophysical impacts. There may be slightly different biophysical impacts at some of the locations."

Staff on Forest C describe resource protection on a case-by-case basis, as staff noted specific areas where high visitation caused resource damage that fees can be used to address with more management:

> "We get sites that get parked out, lots of unwanted impacts from recreation, like social trails and denuded vegetation and things like that, where we want to put some money towards sort of bringing a little bit more active management to."

The difference in these responses, while minimal, does indicate a difference in implementation styles. Staff on Forest B specifically mentioned resource protection as the goal of charging fees, regardless of the individual observations at a site. This perspective is more proactive than reactive in using fee revenue to reduce resource damage.

B. Information for Decision Making

Research Question 2: What information does USFS staff use to make decisions about the recreation fee program?

To understand USFS implementation of recreation fees, staff were asked to describe their decision-making process for charging fees and developing recreation sites. Four main categories of information sources emerged from the data analysis, as almost every participant discussed the same main sources of information (Table 7). Policies and procedures, visitor usage information, staff knowledge, and budget information were mentioned by the majority of participants. Cases and responses differed on how this information was obtained or interpreted in the decision-making process, which is discussed in terms of subcategories.

Table 7: Frequency of Staff-Identified Information Sources for Rec Fee Program Decisions

Information Source	**Forest A** n=3	**Forest B** n=4	**Forest C** n=4	**Forest D** n=2	**All Forests** n=13
Policies and Procedures [a] Use of written policy, procedures, and directives.	100%	75%	100%	100%	**92%**
Visitor Usage Data [b] Amount and type of visitor use.	66%	100%	100%	100%	**92%**
Staff Knowledge [c] Use of staff experience, intuition, and observations.	100%	75%	100%	100%	**92%**
Budget and Funding [d] Use of information on funding sources and program budget.	100%	25%	100%	100%	**77%**
a. (1) RAC approval and challenges, (2) USFS directives, and (3) areas for improvement.					
b. (1) high use and impacts on the environment, (2) high use and impacts on operations, and (3) type of visitor use.					
c. (1) USFS staff hierarchy, (2) informal communication with visitors, and (3) staff discretion.					
d. (1) prioritizing sites with funding, and (2) limitations of reliance on funding.					

B1. Policies and Procedures

Policies and procedures were used at many different points in recreation fee decision making processes. Some participants provided direct references and uses, while others were more vague about how policies were included in decision making. The main distinctions that arose were the Recreation Resource Advisory Committee process, USFS procedures and policies, and challenges of using these policies.

B1.i. Recreation Resource Advisory Committees

The RAC proposal and approval process was the most frequently cited factor in whether a fee was charged. Most participants spoke about the process of receiving RAC approval on their fee proposals and the importance of approval in making changes to the fee program. Forests from

Region 6 stood out in their comments on this process, as this region has struggled to establish a RAC, noted by a staff member from Forest C: “for many years there was not a formal RAC that we could run these proposals through to get our legal obligation to initiate a fee.” This delay in the ability to make alterations to the recreation fee program had impacts on the forest as revenue was not able to keep pace with maintenance needs. Programs that were able to establish a RAC typically described this process as a crucial determinant in whether changes were made to a fee program. This process was not described as an easy task, as another employee stated, “it's a pretty laborious process to go through this [committee] but it makes sense because we can say with a very straight face - this is the fee we need to manage this system.” Despite the challenges of this process, these responses also highlight the accountability a RAC creates.

B1.ii. USFS Directives

A few directives and guidelines were specifically discussed by staff as a source of information. Of the respondents that discussed Federal and USFS directives and guidelines, some were vague in their interpretation, such as one staff member from Forest B who stated that “Congress has given us their intent and a general direction on how fees can be spent and to summarize - my words not theirs - invest those fees in the programs and areas where they come from. And make sure we enhance that. I think we have demonstrated that.” This indicates that consideration is being given to the intent of the REA and USFS directives on a forest-level, however their exact use in implementing recreation fees at this level is uncertain. One respondent from Forest D pointed out the ways in which they used this instruction in describing how staff on the forest “followed our handbook and manual direction as far as what the amenities are at a site, we look at what we offer, and kind of follow that direction to kind of talk about whether or not we should have fees and then how much we should try to have them.”

More than half of participants directly referenced other procedures required by the federal government and USFS directives, these being the fee proposal tool, recreation site analysis (RSA), recreation facilities master plan, market assessments, National Environmental Policy Act, and site management plans as facilitating factors in the decision-making process on whether a fee was charged. A staff member from Forest B noted, “where your site fits in RSA is imperative to raising your fee. You have to show that you're going to keep this site and you're going to maintain this site, and you're going to bring it up to standard in health and safety issues. If you have a really run-down site and you have no intention of fixing the sites, that's a hard push to raise the fee.” While these tools provided guidance for some, others found difficulties in using them.

Development scales were another source of information derived from USFS guidance that staff used. A few participants commented on the use of development scales as an information source for determining direction of development. For example: “it’s very acceptable to not provide drinking water at a development scale 3 campground” and staff members “don't want to take like a primitive place that people go to for solitude, for example, and build like a huge over-built Visitor Center or heavy interpretive trail.”

Staff also use the public as an information source, as public participation is a process required to make changes to the recreation fee program and staff are required to consider this when making decisions. Staff, primarily from Forest B and Forest C, commented on their use of public scoping in implementing changes to the recreation fee program. A handful of staff discussed the need to be open and willing to make changes based on these comments.

B1.iii. Room for Improvement

The sentiment surrounding the various tools and procedures from the USFS was mixed. Some staff members found them useful in recreation fee decision making, as shown above, however others expressed that the procedures and policies were not sufficient. Higher-level staff on Forest A and Forest D identified shortcomings with these procedures on their forests.

> "You should be looking at your Rec Facility Master Plan and your Rec Site Analysis and how it all ranks out… is any of that ever done? No, not usually."

Staff were unable to present solutions to these challenges, as one staff member commented, "do I like the fee tool? No, it's a pain, but I'm not sure what else would be any better."

B2. Visitor Usage Data

Another source of information for staff in the recreation fee program is data on the amount of people visiting recreation sites, the impact of their visitation, and activities. Staff tied visitor use to natural resources, site operations, and used information on recreation activities to inform decisions.

B2.i. High Use Impacts on Natural Resources

More than half of participants explained their connection of high site usage to implementing recreation fees. The most common pathway identified by respondents was the resource damage observed from many visitors at sites without a certain level of staff, maintenance, and services. Most participants explained that charging fees was a solution to decreasing the biophysical impacts of recreation site users. While staff from all cases used natural resource damage incurred from high visitation to inform decisions, the strongest response was from Forest B and Forest C. These cases, however, had different approaches to the use of fees in limiting impacts to natural resources.

Staff from Forest B observed that their "need is not necessarily for the fee, our need is for the reservation system and to limit use within what the biophysical impacts of that area can support" and founds ways to "show these resource impacts and how a fee would help us control and limit some of that pressure so that we can fill in the gaps. Basically, instead of having your spikes on a Friday, Saturday, and Sunday, you fill in the gaps so you have the same amount of people going Saturday to the following Sunday." Forest B used recreation fees to spread out visitation and reduce pressure on the natural environment.

Forest C took a slightly different approach in managing high visitation. Respondents on this forest viewed recreation fees as a funding source for staff to help maintain facilities and ecosystems, instead of closing a site due to high damage. As one staff member from Forest C explained, "I would prefer to charge a small fee for these sites instead of having to get rid of them because that's not doing a service to visitors. Even when you get rid of a site, if there's a pattern of use there, you're still going to see people." This forest approached fee charging to fund greater site management and reduce negative resource impacts.

B2.ii. High Use Impacts on Operations

Visitor usage data was identified as a source of information for the ways in which the recreation fee program can improve visitor experience and the level of funding needed to maintain and operate sites. For example, staff cited instances where high use required more staff to manage sites, and this resulted in fee program decisions. In other instances, sites with high use were prioritized to be upgraded first because this would impact the greatest number of visitors:

> "I think if you're going to deliver the maximum impact or benefit for the user then you kind of got to shift those resources to the places that are most heavily used, and those areas are places like our fee sites and so I would say that's where most of our attention goes."

High visitation at a popular site was identified in Forest B and Forest C as a reason for allocation recreation fee resources. Staff members from Forest C expressed how benefits to users increase if busy sites are prioritized, noting that their forest has:

> "Places that are extremely high use that see thousands and thousands of visitors, just those sites alone, just throughout the summer. Others are not as high use and receive comparably little use, and so I would say prioritization wise, so long as we're meeting our base recreation fee requirements and providing those services, I think the best benefit to the public is the focus on the sites that receive the most use."

A few participants noted their use of the National Visitor Use Monitoring Survey in collecting this information, because "you can kind of calculate how many people are visiting a site and make decisions based on information." Other respondents used anecdotal evidence from staff to determine use levels.

Focusing on high use sites is not cost-free, as staff from Forest A noted that greater visitation would lead to greater operation and maintenance costs. A respondent put it bluntly, "if it's in a high use location we might have a fee because then our cost to manage that location may be higher." This consideration of basic operating costs was also present in responses from staff on Forest C and D. These staff members, however, commented on the potential revenue that could be generated from busy sites. A respondent from Forest C, described the thought process behind determining which recreation sites are suitable for fees:

> "The way that we came up with the list was that we identified sites that were popular, that people like to use, that aren't fee sites, that we are having to maintain with our own appropriated dollars. And we felt that adding them to the system would help us be able to maintain them better and help us continue to maintain them. All the sites we're proposing to add are relatively popular sites so making them a fee should generate revenue."

This motivating factor to charge a fee is consistent with the objective of enhancing and sustaining the recreation fee program that staff from Forest C emphasized previously.

B2.iii. Type of Use

Type of visitor use was discussed by one-third of respondents and described as the activities visitors engage in at recreation sites. These activities can inform staff decisions on whether to charge fees and influence the objectives prioritized by staff. Visitor activities with perceived negative impacts were noted by staff from Forest A:

> "If you charge a fee they're going to better certain types of people, we tend to call them the non-desirables, or you know, the drunk and disorderly type of people that maybe we don't want them at this beautiful waterfall setting."

This observation was reiterated by their co-worker who stated, "if there's a site that gets an extreme amount of vandalism, or you know just the overall condition of the site, I would say those kind of all feed into that [decision]." This type of site use seemed to impact which sites were targeted for fee collection.

Forest B and Forest C respondents spoke more on the types of recreation activities visitors engaged in while on the forest. For these forests, visitor activity was information used to determine sites needing additional funding and how this funding is implemented:

> "We've got to change some of our facilities and enhancements based on kind of what's contemporary and what's in use. Do we do it with every whim? No, of course not, but it's certainly something that we have to continue to work on and continue to analyze."

Another example of using data on who is visiting sites was explained by staff on Forest C, who noted they "focus more on those fee sites because they're the busiest and there where we have probably the most in-experienced users, like we got a lot of people from the city that don't know how to be outside." The proximity to urban areas and the type of user at fee sites is also a consideration on Forest A, where one staff member remarked:

> "We get a lot of tourists in my part of the forest and charging fees is kind of a non-issue, it's expected. We get people from all over the world. Other parts of the forest where

> maybe just the local people are going, we took a really hard look at those, and does it make sense to make a huge jump in fees if people aren't really paying anyways."

B3. Staff Knowledge

Another source of information identified by respondents was staff knowledge. This category involves different types of knowledge from staff members across differing levels of the USFS. Staff across USFS levels were consistent in their perception of discretion in decision making. Three types of staff knowledge were described by participants: use of the USFS hierarchy where staff have decision-making power; informal communication with the public and the local political climate; and use of staff discretion in the form of observations, staff preferences, and intuition.

B3.i. USFS Staffing Hierarchy

Almost half of participants spoke of the USFS staffing structure as a factor that influences changes to the recreation fee program. Respondents mentioned many different levels of the USFS hierarchy, from the Washington D.C. office to Forest Supervisors. Staff from all levels of every case noted that the people "higher up" have some level of power and influence over decisions in the recreation fee program. A district-level employee on Forest B explained how this can influence upgrades, stating:

> "I remember someone working at our supervisor's office in [omitted], he said I earmarked these funds for you, it's time to upgrade those sites because we need that. It's a high use area, we're charging a fee, the toilets need to look like they're from the 21st Century. And he found some money from our regional office to do that work."

This response provides an example of higher-level staff helping fund recreation sites. On the other hand, staff at the Forest Supervisor's Office discussed how higher levels can slow changes to recreation fee program:

> "The Washington Office, Regional Office, or Forest level, any one of those levels can say no now's not a good time. Now's not a good time from workload, now's not a good time politically, now's not a good time for numerous reasons."

B3.ii. Informal Visitor Communications

One source of staff information common across all cases is from informal communication with visitors. For categorization, this was defined as any feedback and communication with visitors that was not required by a policy. For example, the REA requires a public comment period when making changes to the recreation fee program. This information is used by staff, however other forms of communication with the public are used to make decisions, as one participant explained:

> "We were getting the complaints there that that bathroom was particularly stinky, the venting system didn't work well, so you go in there and if you're in there longer than the time it takes to just go to the bathroom and get out, then your clothes reek. So, we're getting all this feedback like 'you need a changing room, you need a changing room,' so we got a grant and we built the changing room and people love it."

Another way the public informally influenced the decision-making process was through the local political climate and local sentiment about government agencies. This varied across cases, as some staff members noted the local government supported recreation fees, while others did not:

> "We have a very conservative county that might be opposed to fees and a lot of that is just anti-government sentiment in general, and so any change or anything the forest service wants to do in the forest here gets a lot of public scrutiny."

B3.iii. Staff Discretion

Staff discretion is a category created for descriptions of information that was anecdotal, experience-based, or intuition of when something "makes sense." This phrasing was common across all cases and the majority of participants reported this type of decision making in some capacity within the recreation fee program.

The use of experience and staff knowledge is best shown through staff descriptions. District-level staff across cases described their decision to make site recommendations based partially on observations, as one participant noted:

> "A lot of it is professional opinion. If someone is servicing that site several times a week and they recognize that something is wrong with the fee tube or the signage needs to be updated or something like that, then yeah, that's one of the ways that we identify the need to put money into it."

This staff knowledge is relayed to forest-level staff who appear to trust in the knowledge of district staff. Staff at the Forest Supervisor's Office explained, "if the program managers tell me they need something, I very seldom second-guess them."

A subcategory within the theme of staff discretion is the personal preferences of decision makers. Some staff members directly pointed out where personal preferences influenced decision making. A respondent from Forest D noted:

> "Where there might be differences between districts might be if - in the past some managers, on the ground managers, have focused more on, say signing, than others have… you get individual differences for personalities and what's important to the person who has the on the on-the-ground responsibilities."

In this regard, the individual priorities of staff influence fee program decisions. A similar concept was present in Forest C, where a staff member explained their decision-making process in terms of intuition and feeling. They commented that, "I felt that it would generate the revenue and I also felt that rather than having a concessionaire operate the sites, where the cost will go up exponentially, I felt that five dollars was a reasonable amount to charge for a site." In this instance, the decision-maker was using intuition. If other factors were involved, they were not mentioned.

Some staff described relying on experience and discretion in certain situations. For example, a participant explained their decision-making process:

> "We start with our laws, then we go to regulation, then we go to our manual, then we go to our handbook. And then you draw on experience… There's guidance, then you draw on your background, your knowledge, and asking a whole heck a lot of other people."

Another situation where staff discretion was used was in making changes to dispersed sites. Compared to sites within the fee program, staff commented that dispersed sites allowed for more discretion in the decision-making process. As one participant pointed out:

> "Dispersed sites are obviously a little bit more loosey-goosey because it's obviously dispersed by nature. So even those less developed sites that are probably free, I think it's a lot easier for a district, rec tech or rec supervisor to say, yeah you know this just isn't working very well, let's just pull the picnic tables out."

B4. Budget and Funding

Recreation program staff described using budget and funding data when making decisions about the fee program. This information was used to prioritize maintenance and upgrades but also presented staff with challenges.

B4.i. Prioritizing Sites with Funding

The majority of staff across all cases shared a similar process for using financial information in the fee program decision making process. First, it was apparent that fee revenue funding gets combined at the forest level, then redistributed to individual areas based on priorities. The determination of which sites are prioritized differed slightly.

For Forest B, one challenge was with sites that don't earn enough revenue to get prioritization. One staff member recounted their conversation with forest leadership:

> "I had to show them and prove to them that if, trust me, if you give me this money out of this program, I've made the recommendation that we're going to close these other two campgrounds so I will need less money in the future."

In comparing sites with funding from fees and sites solely funded by congressional appropriations; fee sites were prioritized across all cases. Staff from Forest A noted that

"developing a non-fee site is not as likely as developing a site that has a chance to generate enough funding to maybe keep it operating out of the red." This observation was common across cases as staff from Forest C noted, "when it's a fee site, it does make that conversation a bit easier because you know that you're generating revenue at that site that can potentially cover those upgrades."

B4.ii. Funding Limitations

Many respondents commented on how the emphasis on funding in making recreation fee program decisions can be a challenge. Respondents spoke about the difficulty in sustaining a site in the recreation fee program. When considering potential revenue, staff must consider "if we do move a site from non-fee to fee, are we going to be able to maintain it in the future, at that standard?" This is a question that was brought up across all cases, as staff on Forest B also noted that "in five years it'll probably not be enough, but that's okay because we've shown at this point in time, $10 for example, is what we need to manage this area successfully."

The cost of labor and materials for proposing a fee is a challenge for Forest D. When discussing the considerations made for introducing or raising a fee, staff on Forest D explained:

> "Getting the funding to plan to do the planning and the pre-work, and then getting the funding to implement, both of those pieces are really a struggle, and plus when you have the time for the personnel."

The time and money required to propose changes to the recreation fee program was not currently feasible for certain sites on Forest D. Staff across cases observed that their fee pricing mechanisms were not sufficient, as one staff member noted that the forest is "not supposed to consider inflation when we consider a fee increase, which it's kind of silly because the cost of fuel, our salaries go up, you know, the cost of doing business, it's a natural progression." Market

components, such as inflation, could be accounted for in the fee proposal procedures put forth by the USFS.

A few participants also spoke about the efforts to keep prices low on the forest. Staff were trying to maintain the operation of their programs while also providing ample access to public lands. With the fee program, one participant from Forest A commented that "just because you may have the option to increase a fee doesn't mean you should" and staff on Forest B noted that "we do our darndest to not charge fees honestly at the majority of our sites." The desire of some staff to keep sites out of the recreation fee program appeared to present a challenge, as when fewer fees are charged there is less revenue generated on the forest.

The first objective of this study, to understand USFS recreation fee implementation, involved examining the priorities and objectives of staff and their decision-making processes. The interview findings indicate that staff prioritized: providing services, hiring staff, and maintenance the most with some staff also focusing on enhancements and resource protection. Staff presented different perspectives and cited different strategies for achieving these objectives. Almost all respondents used the same information sources: policies and procedures, visitor use data, staff knowledge, and budget and funding information. Differences emerged around the creation of RACs, type of visitor data, and funding strategies. Furthermore, staff expressed challenges with USFS policies and procedures, and the limitations of using funding information to inform decisions.

C. Potential Impacts of the Recreation Fee Program

Research Question 3: What are the impacts USFS staff perceive from recreation fee program implementation?

The second objective of this study, to determine the staff perceived impacts of the recreation fee program, is discussed below. To determine perspectives on the potential impacts of the recreation fee program, staff were asked about how the program might impact forest operations, the public, and observed differences at fee sites compared to non-fee sites (Table 8). Staff identified operational and internal impacts, which are sorted into subcategories of impact to program management, staff, recreation sites, and financial sustainability. Staff also discussed impacts to the public, in terms of their perceptions of the fee program, potential for displacement, and participation in recreation fee processes.

Table 8: Frequency of Staff-Identified Impacts of USFS Rec Fee Program

Main Impact Area	**Forest A** n=3	**Forest B** n=4	**Forest C** n=4	**Forest D** n=2	**All Forests** n=13
Operational and Internal [a] Impacts on the internal functions and operations of the program.	100%	75%	100%	50%	**85%**
Impacts on the Public [b] Impacts on public perception and relationship with the public.	66%	75%	75%	100%	**77%**
a. (1) Impacts on management of the fee program, (2) impacts on staff, (3) impacts on recreation sites, and (4) impacts on financial sustainability					
b. (1) public perception, (2) visitor displacement, and (3) public participation.					

C1. Operational and Internal

C1.i. Impacts on Program Management

Six respondents spoke about their perceptions of impacts to operation and management of recreation sites as a result of the recreation fee program. Responses ranged across cases and roles and a few categories within the program management theme stood out. First, staff discussed how

management of recreation sites can become more business-oriented and focused on deliverables to the public. This perception was identified by staff who work in their Forest Supervisor's Office. Perceptions on whether this business-like operation is positive or negative was not discussed by staff, although one participant commented, "I'm not sure that the national forest should be operated like a business. In some ways it probably should, it kind of helps us look at keeping supply and demand in check. It helps us make sure we're providing the right amenities. It keeps us accountable to the public." While business operations on forests can have positive impacts in terms of accountability to the public, some staff noted that showing the public that recreation and public lands are worth a fee was a downside.

Another theme was the decentralized and inconsistent processes across forests. Staff spoke about the impact of decentralized management and implementing the recreation fee program. In attempting to explain the use of recreation fee revenue across the forest, one staff member laughed and explained, "each forest has their own formula for how they do that, and it's not standardized. That's the joy and bane of the existence of the forest service. We are very decentralized." This decentralization seemed to complicate decision making, but also allow staff a degree of autonomy.

C1.ii. Impacts on Staff

Another category of recreation fee impacts is the ways in which fees can affect staff on forests. Participants described how staff can become uncomfortable due to upset visitors and theft at recreation sites. A participant from commented that "when our employees are doing that, collecting fees and doing compliance, sometimes they can run into somebody who refuses and just puts that employee in a difficult situation." Another respondent observed that having fee tubes "lures those types of unwanted people around to not only possibly steal the money from the

fee tubes but possibly break into cars when they're around." Staff on Forest C not only recognized this impact but were also addressing it through infrastructure improvements, namely investing in fee tubes that were more theft resilient.

Staff at the District and Forest-level noted that staff could be uncomfortable charging recreation fees due to their personal opinions. A participant expressed that staff struggled with implementing recreation fees due to their personal views:

> "It's been real difficult for myself as well as some of my staff that are responsible for this fee approval process because none of us are advocates for charging additional fees for use of public lands."

This perception was contrasted by a staff member from Forest C who thought that staff do not care enough about the implications of charging recreation fees. This respondent shared that, "in my experience with the Forest Service, though, I don't think a lot of people care, you know?... For the most part people are like let's charge fees whatever the repercussions are, we don't care or whatever."

C1.iii. Impacts on Sites

Staff perceived impacts on recreation sites that are in the fee program, as well as sites not in the fee program. Visitation and use of recreation sites were mentioned in all cases as an impact to sites in the recreation fee program. Bringing a site into the fee program was described as a way to avoid closing sites with increasing operation costs. Staff noted that the recreation program is different from other USFS programs, in that rising recreation demand is not easily managed. Staff from Forest A commented:

> "The recreation program is not set up like any other program in the National Forest System. For example, the timber program, they get to decide - well Congress, the Washington office tells them - how many trees they need to cut this year… Recreation does not have a recreation target. I don't set a goal and say, I want to have 500,000

> people on my Forest this year. That's not what we're doing. Instead, visitors come to us… I don't have the option just to close down the Forest and just say, well yeah I didn't get a chance to hire my seasonal staff so we're just going to close down the forest."

The on-going and increasing recreational use of the national forest requires management and maintenance, regardless of the funding available.

Staff also described how visitor use can be tied to increased site development. The balance of keeping sites undeveloped and inexpensive in the face of rising visitation was a concern of staff, as "one of the things that's appealing to national forest users is that sense of freedom and non-confinement and things like that, so making sure we still have that available," and "as recreation becomes more and more developed, and you know, everything else, you're impacting more and more of the land." The balance between fees and development, and dispersed opportunities appears to be a challenge.

C4.iv. Impacts on Financial Sustainability

Many staff members noted that recreation fee funding was helpful at sites, however fees brought challenges that can negatively impact the recreation program. One main concern was the potential for fewer Congressionally appropriated dollars: "one of the negative impacts is Congress says well, you're generating all this money so therefore we don't need to appropriate more money for your program." This is a concern for staff, as one participant from Forest D stated, "I'm not sure we could rely just on fees alone to operate all the sites that are currently fee sites." Furthermore, some staff stated that recreation fees that were too low to help maintain and manage recreation sites. Staff across cases shared a similar perspective, that "if you maintain a REA program… it needs to be supported at the forest-level and the regional level by appropriated funds" and "in a lot of cases I would say our prices are way too low." One challenge staff described was in determining the "right" number of facilities and services to offer

and the best locations to offer these. As one participant described, “if you have too many facilities or the facility is in the wrong location and they’re not used, it starts weighing down the financial sustainability of the entire program.”

Participants also mentioned the pricing differences between public and private recreation sites, and asked “when was the last you saw a private campground that charged as little as any Forest Service campground? We, as an agency, do not charge anywhere near what the private sector does, even though, quite often, our offerings are the same if not maybe better.” A handful of staff noted the challenges of balancing private and public sites.

C2. Impacts on the Public

Staff described impacts of the fee program on the public in a few different ways, primarily that the fee program could have negative impacts on the public’s perception of the USFS and has the potential to displace visitors from recreation sites. A few participants also commented on the lack of public participation in the fee proposal process.

C2.i. Public Perception

More than half of participants observed that they thought the public had a negative perception of the recreation fee program, due the presence of fees. On-site staff shared the perspective that the public lacks an understanding of recreation fees, and that “the negatives that come with the whole fee program is the fact that some people view it as, again, being charged for something they believe the government should provide for free because they pay taxes.” This perception was shared by staff on the district level as well, who spoke about how frequently the forest gets “complaints from the public about having to pay a fee because they pay their taxes, you know, and I've heard - I can't tell you how many times I've heard that.”

Staff also noted that the public might not understand what they are receiving by paying their fee and this can lead to a negative perspective. Staff on Forest A commented that "people kind of have that mentality, 'I shouldn't have to pay to hike'. Well, you're not paying to hike nor are you paying to park. You're paying for the services that we're providing. So there's a lot of misconceptions out there in the world about what is your fee actually going to."

Staff also discussed the development of visitor perceptions overtime, as staff from Forest D noted that "when we instituted fees we got a lot of negative feedback over that and I think to some degree a lot of that is just the change, you know, it's not so much that they couldn't afford it, you know, they didn't understand. A lot of it was they didn't understand the benefits of the fees." Staff on Forest B and Forest D shared similar perspectives on how comments from the public change over time. One participant from Forest B noted, "the first year of change people really struggle and then we'll hear nothing more about it. In fact, every now and then we'll hear thank you, every now and then." Effective communication was identified by staff as the way to address this negative public perception. A respondent from Forest B described how communication can address the negative public perception:

> "Nobody wants to implement a new fee and then have nobody know about it because it just makes for some really challenging conversations at our welcome station where we collect our fees so I think one of the biggest challenges was making sure that the communication strategy is dialed. And it goes back to that after the first year it can be really really hard, but then everyone settles in. If we do a good job explaining the why and the how then we set, we tend to be pretty successful in our implementation."

C2.ii. Visitor Displacement

Another perceived negative impact identified by staff was the equity of recreation fees and potential for visitor displacement. The source of displacement differed for staff members, with no clear pattern by role or forest. Some participants commented that the cost of fees directly

displaced populations, as one staff member from Forest C noted that “even if it's only five dollars, I still think it's kind of a barrier to the public or those who don't know or aren't familiar with recreating on public lands.” This was echoed by a participant from Forest A who commented that “charging a fee might be the difference between whether or not some families can go camping.”

These concerns were addressed by other staff members who recognized the need for both free and fee sites on the forest, as one respondent explained, “the forest service has been pretty responsible with balancing fees and the need to charge fees with understanding that these are still public lands.”

Another source of perceived displacement was due to confusion or inconvenience. One staff member described a fee as a barrier if visitors cannot figure out how to get a pass. They mentioned a way to address this is by “installing, like, fee machines at some of our sites where you can pay on site.” Another mechanism of the fee program is recreation.gov, which is a central location for recreation site information and reservations. This can also cause issues for visitors “because not everybody wants to make plans 6 months in advance when we open up the window, or not everybody wants to pay an $8 booking fee to recreation.gov.”

C2.iii. Public Participation

Staff also identified a lack of public participation in recreation fee processes as a perceived negative impact of the recreation fee program. The process to make changes requires a certain level of public engagement, which some forests struggle to obtain, thus hindering their program. One staff member described attendance at a public meeting on fees as “a very small group of dedicated individuals showed up to that public meeting, and they’re all people we’ve

already talked to." This was similar to other cases where staff members noted complaints from the public but no interest in participating in the process.

D. Recreation Fees and the Visitor Experience

Research question 4: How do USFS staff perceive the impact of recreation fees on visitor experiences?

To determine how the presence of recreation fees could impact visitor experiences on the forest, staff were asked about their perceptions of the benefits visitors receive and how visitor experiences may change based on the sites they visit. Staff identified two components of the program that they perceived to influence visitor's experiences: services and perceptions, shown in Table 9. Three main subcategories of services that staff identified include: the quality and quantity of services, visitor expectations, and visitor desires. Second, staff noted that visitor perceptions and preferences impact their experiences at recreation sites, which is divided into negative perceptions and confusion, range of recreation opportunities, and visitor type.

Table 9: Frequency of Staff Perceptions of Fee Impacts on Visitor Experiences

Main Source	**Forest A** n=3	**Forest B** n=4	**Forest C** n=4	**Forest D** n=2	**All Forests** n=13
Role of Services [a] Staff perceptions on how the presence of services impact user experiences.	100%	100%	100%	100%	**100%**
Visitor Perceptions and Preferences [b] Staff perceptions on visitor characteristics that influence experiences.	66%	75%	100%	100%	**85%**
a. (1) quantity and quality of services, and (2) visitor expectations of services.					
b. (1) negative perception and visitor confusion, (2) range of recreation opportunities, and (3) visitor type.					

D1. Role of Services

D1.i. Quantity and Quality of Services

Staff most frequently discussed the quantity and quality of services and amenities offered at fee sites compared to non-fee sites. Given the available funding at fee sites, there are typically more facilities and increased maintenance and cleaning at fee sites. This can impact visitor experience in a positive way, as more care is provided to ensure a good experience at these sites. Staff on Forest D shared this perspective that "they're going to have a higher quality experience if they're able to show up to a campground that offers trash and human waste services." This was echoed by staff on Forest B who noted that "the influence [of fees] is positive because we're providing a lot of services like I mentioned before, you know, the big negative being the fee, you know, the five bucks in and of itself."$Furthermore, staff commented that services and amenities at fee sites can impact visitors' perception of safety on the forest, regardless of whether additional amenities truly increase safety. As staff on Forest A explained, "safety is a big component of all of that for people and the more amenities there are, oddly enough, it seems the more safer people feel."$

While staff observed that services can enhance visitor experiences, this was not always the case, as each visitor is different. In some scenarios, staff expressed that an increase in services and amenities at a site could detract from visitor experiences. Staff on Forest A noted that "people get a lot more amenities at our fee sites than at our sites that are free. How do I think they impact the visitor experience? You know, it really kind of depends on the visitor." From staff perspectives, it is hard to predict what level of development visitors want at a site. Staff noted that development could lead to a negative visitor experience because "by developing some of those sites more, you may be alienating a portion of the population." This perception carried

across cases, as other participants described that “we build things and approve things that are not needed and actually detract from the greater offering of the forest.” Staff did not identify any way to measure or ensure a satisfactory number of services were being provided. Some participants mentioned using surveys and the NVUM to inform them of visitor expectations and experiences.

Given limited resources, staff identified tradeoffs that needed to be made when it came to the ability to provide services and maintain them. Staff described that “if a campground has to say, fall off the plate one week for cleaning, you know, we just don't have the personnel, the sites that fall off the plates first are the non-fee sites.” Sites that are not generating income will not receive the same level of attention as sites that do generate income. A visitor is more likely to experience a developed, maintained, and clean site if they visit a fee site compared to a non-fee site.

D1.ii. Visitor Expectations

One factor in a positive visitor experience identified by many participants was whether the quantity and quality of services met visitor expectations. This can be difficult to predict, as staff on Forest D commented that “it just depends on what they're - as much as what we have out there is development or not development - it depends on what their expectations are when they come here and I think, you know, when you have a lot of first-time campers all bets are off.” When discussing the impact of fees, a participant from Forest B explained that “they impact the experience pretty, pretty greatly because, back to that comment earlier, that people expect things a certain way. They expect clean toilets, they expect to have water, they have a lot of expectations and oftentimes we’re not able to meet those.”

When discussing how to provide offerings that improve visitor experiences, staff commented on balancing sites needs and visitor wants. Meeting the public expectation is perceived by staff as an important element in creating a positive visitor experience, however some visitor desires cannot be met. Staff explained: “we’re meeting the public’s expectation, with these services, however I do think they continue to expect more. More signage, more presence, all the things, just more hand holding quite honestly.”

Meeting the public’s expectations was not an easy task, as many staff members spoke about the challenges in maintaining amenities. Meeting visitor expectations was a challenge across all cases and required financial investment into sites and facilities. Staff on Forest A noted the extra expenses that come with meeting public expectations, commenting that “we cannot afford even half of what we have. But [engineers] are always encouraging people to decommission, tear down, not build, do you really need that?”

Some staff found other forms of funding such as grants or local support, to aid with maintenance and facility upgrades. This was primarily discussed from staff on Forest B, who reported having a positive relationship with local government and communities. One staff member explained, “I have a crew funded by donations, a crew funded by a county, a crew funded by the fees that they collect at the site that we manage, so that’s the way we're putting it all together.” When faced with limited funding, this staff member turned to the county to help maintain services to the public.

D2. Visitor Perceptions and Preferences

The majority of participants observed that user experiences on the forest were highly dependent on the preferences of the visitor. As people come to national forests with a variety of experience levels, expectations, and objectives, the experience they receive is very different. In

this regard, staff noted that visitors typically choose the sites and activities that they want, and the experience is relatively positive. As one participant pointed out:

> "They're choosing to go out to the forest and choosing to go at these various trailheads, so, you know, as long as they have a place to park and then whether they have all of the facilities or some of the facilities they're there to hike and enjoy the outdoors, so I don't know how much that influences their behavior or, you know, their feelings."

Some staff commented on how an exception to this could be if a visitor is new to the forest and outdoor recreation. What a visitor is looking for on the forest can be dependent on their experience, comfort level, and gear:

> "I think if it's people that are new to outdoor recreation they like the amenities and that helps them have a better experience, you know, people who, you know, like families and things like that where it's hard for them - because you have to go dispersed camping do you need all the accoutrements to go out there and like disperse camp, right? And that stuff is expensive"

D2.i. Negative Perceptions and Visitor Confusion

As previously discussed, staff perceive the recreation fee program to impact visitor perceptions (see C2.i). In turn, staff expressed that how recreationists felt about fees could influence their experience. Some staff commented that visitors can have negative experiences when they disagreed with the fee program because "if you show up and you don't want to pay a fee and that sets you off, I just think it sets the tone for the rest of your visit." This negative experience could stem from change, as mentioned by staff on Forest C, "if you have a site that you've been going to for years and years and all of a sudden it's a fee, I think that people tend to be pretty unhappy about that."

In improving these visitor experiences, staff on Forest B expressed that it was their responsibility to explain fees to visitors. To convey this information to visitors, one participant from Forest B explained how "upfront information and education is key to being successful in the process of telling the 'why'. The permit system, the reservation system, was overwhelmingly

accepted because we were able to show the environmental degradation that the overuse was causing."

D2.ii. Range of Recreation Opportunities

Staff explained that the fee program helps the forest to provide a wide range of recreation opportunities to the public. This creates more options for people when they come to the forest and increases the likelihood of a positive experience, given something was being provided for every type of visitor:

> "People come to the forest for different things. You may want to come to the forest and want someplace to push your stroller down a trail and be with your 1-year-old… and there's places like that on the forest where you can do that. Then there's places where, yeah you need - if there's no signs, you need to know how to read a map and a compass, you need to tell somebody where you're going because there's not going to be a lot of people out there, and so we try to manage across that spectrum."

A respondent from Forest A explained that the recreation fee program allowed the forest to manage many sites with different levels of amenities:

> "We do have those highly developed sites where people that want a shower, they want garbage service, they want potable water, they want a flush toilet, um, they want, um, a paved campground road to minimize dust, they want a tent pad, they want, um, you know a greywater sump, you know these things, and we're able to provide those amenities because of the fee that is attached to it."

D2.iii. Visitor Type

One major difference in perceived visitor preferences and experiences was related to visitor type, namely, tourists and locals. Staff across all cases discussed the distinction in willingness to pay fees and services expected between these user groups. Generally, tourists were seen as more accepting of fees and expected to pay them. On the other hand, locals' experiences differed across cases. Staff on Forest B observed that the public was supportive of fees and the recreation program due to "the fact that [omitted] is such a wealthy community. And so the tax

base is huge and so our county is very wealthy and they have an open space and trails program as well that we work pretty closely with." Staff on other forests noted that "the fact that there's a fee makes people a little, you know, unnerved, because they think by paying their taxes that they're basically paying a fee." How visitors feel about fees could impact their experience on the forest.

E. Recreation Fees and Visitor Access

Research Question 5: How do USFS staff perceive the impact of recreation fees on visitor access?

To determine staff perceptions on the potential impacts of recreation fees to recreation site access, participants were asked about the diversity of visitors to the forest, their perspective on displacement of visitors, and how they communicated with visitors about recreation opportunities. Staff identified a lack of racial, ethnical, and income diversity and various causes of low diversity on the forest. The overwhelming staff perspective on displacement from recreation was the belief that it happens, but not on their forest. Staff identified a handful of sources of displacement, including the cost of recreation and visitor preferences, as shown in Table 10. Finally, staff suggested that there were barriers to information about the recreation fee program that could limit access.

Table 10: Frequency of Staff Perceptions of Fee Impacts on Visitor Access

Main Source	**Forest A** n=3	**Forest B** n=4	**Forest C** n=4	**Forest D** n=2	**All Forests** n=13
Diversity on the Forest [a] Staff perceptions of diversity on the forest and characteristics that influence visitor diversity.	100%	100%	100%	50%	**92%**
Potential for Visitor Displacement [b] Staff perceptions on the potential for user displacement due to cost of recreation and visitor preferences.	66%	25%	50%	100%	**54%**
Barriers to Information [c] Staff perceptions on where the public receives rec fee information and the quality of information.	66%	50%	25%	50%	**46%**
a. (1) perceptions of low diversity, and (2) sources of diversity.					
b. (1) cost of recreation, and (2) visitor perceptions and preferences.					
c. (1) sources of information, and (2) quality of information.					

E1. Diversity on the Forest

E1.i. Perception of Low Diversity

About two-thirds of staff observed that the racial and ethnic diversity on their forest was very low. The most common type of visitor staff identified was upper-middle class White recreationists. This visitor type aligns with the racial demographics of each forest in the NVUM, which report over 90% of visitors are White (see Appendix G). This was consistent across all cases and staff levels. Staff observed a lack of racial, ethnic, and income diversity on the forest:

> "From what I've seen, and again this is personal, you know, observations. It's mostly a bunch of white people. A bunch of white, middle-class and upper-middle-class, white folks."

E1.ii. Sources of Diversity

Beyond identifying the low racial, ethnic, and income diversity on forests, staff discussed the potential ways in which more diverse populations can be brought to the forest and the reasoning for current low levels. For the former, location played a seemingly large role in the presence of diverse visitors to the forest. Staff noted their local population did not bring any diversity to the forest:

> "We're just not diverse at all. Largely rural communities, you know, so we've got a lot of visitors from other places and then the local communities here are largely very very rural, conservative and White."

One participant from Forest A explained: "we are not in a part of Region 6 that is very ethnically diverse and so consequently, when you recreate on our forest, you'll find that." This lack of local diversity is reflected on the forest, however the presence of tourism increased diversity, from staff perspectives: "we have a large national park right next to us, obviously, which draws people from across the country and to some extent, across the world so we do see some racial, ethnic, socioeconomic, etcetera diversity."

One of the main sources of racial and ethnic diversity was regional tourism industries. Staff on forests with local populations that are largely White suggested that regional destinations, such as nearby National Parks, National Monuments, popular cities, and state attractions brought a range of visitors to the forest; staff noted: "since we're closer to a city, cities are just generally more diverse, we see a more diverse recreation user base here" and "a big part of the Hispanic community goes to [omitted site]. Um, because it's really close to [omitted cities] and there's a big Hispanic population in that area. You don't see as many - you don't see as big of a diversity at some of the other trailheads that are up on the mountain."

Staff on Forest B explained that their local populations were diverse, but this was not necessarily reflected on the forest. Participants commented that visitation is "still in the 80-percent White… We're seeing, you know, the high schools here in these towns are 60-percent

Latino and so we're seeing a much larger influx of Latin folks that are using the forest" and "it is a very diverse valley, very much so and we just don't see it when we're then out on the national forest." As one staff member on Forest B suggested that the cost of travel may be a barrier for people of lower economic status:

> "Could more people come? Or more diversity come? Of course, yes. I think our biggest stumbling block is probably economics. You've got to get here. So if you don't have the vehicle and the gas money or the plane ticket it's hard to experience the [omitted]. So for our locals who live here, it's awesome, regardless of their background and their diversity."

The respondents in each case had slightly different opinions on the diversity of visitors to their forest and the causes of diversity, but each forest was internally consistent in the perceptions of diversity across staff levels.

E2. Potential for Visitor Displacement

Staff expressed that the presence of recreation fees could discourage visitation of new users and displace visitors from sites due to adding fees. Staff noted the many financial barriers to recreation and often explained that their forests provide free sites that mitigate displacing and discouraging visitors to the forest.

E2.i. Cost of Recreation

The total cost of recreation, including fees, was the most common source of potential displacement discussed by recreation fee program staff members. Some staff expressed that the monetary barrier to entry for recreation was already displacing people, before fees could. In this sense, staff noted that fees are nominal in comparison to the high cost of transportation and gear required in recreation activities. One participant from Forest B explained their concerns with fees displacing users and that "for a lot of people who don't have the money to visit and would be displaced by the fee itself, there's a lot of other barriers before you even get to that point." This

respondent went on to discuss the high cost of buying or renting gear, plus "transportation, so a lot of folks that won't be able to pay this fee… would potentially have a barrier to having the transportation to get from where they live to a backcountry wilderness trailhead." A handful of participants across cases shared similar beliefs on the equity of recreation fees for low-income visitors. A fee can be a barrier to people, however there is a chance that they are displaced due to recreation costs before this point.

One forest-level participant from Forest D remarked that wealthier clients are not financially impacted by fees. This staff member commented that "You know, maybe in urban settings where decisions are based on, to visit or not, are more based on money, right? Here I think we have a wealthier clientele."

Some staff expressed that fees can directly impact access to recreation sites. This perception was common across cases and staff levels and was consistent with respondents who cited displacement as a potential negative impact of the fee program:

> *"*If a site becomes too expensive for them, you know, through fee increases, they might have to choose a different location. Or if we have a previously free site and now we're charging a fee, that's definitely going to impact somebody."

The majority of participants focused on the availability of free sites as a solution to displacement due to fees. In addition to explaining that the availability of free sites helped avoid displacement, staff members also commented on the quality of these sites. Staff on Forest A noted there was "a pretty nice selection of camping areas that are considered developed, that there is a bathroom, there are picnic tables, there are fire rings, that are free," and "we have free sites that are basically developed campgrounds, we just don't charge." This perspective on the quality of free opportunities was echoed by staff on Forest B, who discussed how displacement is considered in decisions: "when I go to increase that fee, the opportunities that we provide in

dispersed camping up there are immeasurable. So, the user will still have the opportunity to experience their national forest in a very consistent way."

Aside from fee sites, some staff responded that fees were low enough to avoid displacing users. Many participants noted that fees were around five to ten dollars, and this was a relatively small cost, as noted by site and district staff on Forest C: "people can for the most part still pay five dollars, more or less." In contrast, staff in the Forest Supervisor's Office on Forest C expressed a different perception:

> "I feel very strongly, you know, even if we charge by a $5 fee some people, you know, around here may not be able to afford that, you know?"

Lastly, extraneous factors such as concession operations and recreation.gov costs were viewed as a component of the fee program that could displace people from visiting recreation sites, rather than the forest-implemented fees. In this regard, some staff commented that putting sites under third-party operation was a source of displacement, because "when you get into the concessionaire sites which is a little bit of a different branch underneath that authority, because they're a private entity, have their own thing running a public campground, they actually have the capacity to charge more money than the Forest Service would typically charge and I think that's where people really start to get priced out." Given the REA does not include concession-operated sites, this respondent explained that sites without that protocol were more likely to price out users. Similarly, some staff described how using reservations on recreation.gov would price out potential visitors:

> "The fee is nine dollars to make a reservation so you're basically almost paying for one more full night by having to make a reservation. So I think that even though going reservation has some benefits, such as limiting the amount of cash at the campground, ensuring that people have a place to camp when they come, I do think it has displaced a certain group of people that, you know, can't afford or just can't even navigate a website."

Another component of recreation.gov that could displace users is the reservation system, which one respondent noted, “just the fact that they have to go in and get a reservation for this possibly is a barrier even if the fee wasn’t included in there.” This concept was mentioned by a few staff members who noted that the ability to plan ahead and make a reservation was a privilege not every visitor can afford.

E2.ii. Visitor Perceptions and Preferences

Almost half of recreation fee program staff stated that the program impacted visitor access due to the perceptions and preferences of visitors. For example, fee sites are typically high use as discussed in the previous sections. Some visitors may not choose to recreate at these sites due to the crowding and in-experienced visitors the site might attract. This was explained by staff on Forest C: “there's people that want to go to nature for solitude and they don't want to be around people, generally. And generally, our fee sites are busy, very busy - that's why we made them fee sites.” As visitation increases, this displacement continues, as mentioned by staff on Forest D who “think it's not so much the fees that displace some of our users as it is the numbers of people now coming”.

Visitors can also hold perceptions and misconceptions about the fee program that reduce their visitation at those sites. First, visitors may dislike the fee program in general and choose to recreate elsewhere. In this sense, staff pointed out that “charging money for access to the national forest can be frustrating for some people and it can price them out” and “no one likes to pay more, it’s human nature.” Second, visitors that aren’t familiar with the USFS and recreation fees might not understand how to pay or what the expected procedures are, and this confusion could be a source of displacement. Staff on Forest C noted that there are “people who don't have the money or connections to the internet, right?... there's probably a large group of people who

don't come to the forest because of some of those reasons and also because it's somewhat confusing to figure all that out."

E3. Barriers to Information

Another theme related to potential impacts was the quantity and quality of information regarding the recreation fee program. Visitor misunderstanding and frustration was identified as a negative impact of the fee program and source of displacement.

E3.i. Sources of Information

The most common source of information for visitors identified by staff was the USFS website, social media accounts, and recreation.gov. These internet-based resources are where information on whether a site is fee or non-fee, what amenities might be available, and recreation opportunities across the forest can be found. According to staff, this was the main way visitors could learn about the benefits of the recreation fee program and where to find fee and non-fee sites. Staff noted the inequity of this information source as access to technology and internet can be barrier to information:

> "If you don't have a phone or if you don't have a connection to the internet or computer or whatever, you know, even if you don't have - even some people don't even know that we have ranger stations, right? Like they come out here and they - yeah they're just lost."

Other sources of information include maps and books, as well as word of mouth. Respondents identified multiple ways in which visitors could be informed about recreation activities, although online resources were the most common. Books and maps tended to be specific to the forest or region and word of mouth was mentioned as common amongst visitors that are already on the forest.

E3.ii. Quality of Information

Staff commented on the quality of information as a potential barrier to visitation. Information quality is important in ensuring that the public understands the mechanics of

recreation fees, such as where to pay and how to pay. Many staff members noted that the public is generally confused about recreation fees and doesn't understand their purpose. This information is important on a forest-level because "when I think about being a member of the public, you know, it's inconsistent, right, we're inconsistent across the agency about fees. What kind of fees we charge, what passes we require, you know?" Lack of consistency of information can lead to visitor confusion, and some staff remarked that the fee system can be complex and difficult to understand, making messaging even more important. A participant from Forest B explained that they "try to really coordinate the messaging so that it's easy for folks to figure all of this out, because it is pretty complicated. And then you throw in a reservation system, last year and this year and it really makes people's heads explode." As fee systems evolve, communication with the public becomes more important. Respondents across all cases and levels emphasized the importance of communication with the public.

The second objective of this study, to understand USFS staff perceptions on the impacts of recreation fees, involved examining the broad-scale impacts to the agency and the public, and the impacts recreation fees are perceived to have on visitor experiences and access. To summarize, participants perceived impacts to management and staff, recreation sites, and USFS financial systems. Staff expressed that recreation fees can both positively and negatively impact the agency and visitors. Staff perspective on the impacts to visitor experiences seemed to vary based on the demographics of their forest population and level in the USFS.

F. Case and Role Comparisons

This section examines the interview findings in the context of existing data to make comparisons across the cases. Given the large amount of data presented, a summary of the main interview themes is discussed first. Table 11 outlines these categories and their intended

connection to existing policies and implementation frameworks which are discussed in detail below. The following sections discusses the differences in experiences and perceptions in the context of cases and staff roles.

Table 11: Frequency [a] of Interview Themes and Study Objectives

Study Objectives and Questions	Interview Themes
Recreation Fee Implementation	
Objectives of Charging Fees	- Services (92%) - Staff (85%) - Maintenance (69%) - Enhancement (46%) - Resource Protection (31%)
Information in Decision-Making	- Procedures and Policies (92%) - Visitation and Use (92%) - Staff Knowledge (92%) - Budget and Funding (77%)
Perceived Impacts of Fees	
Impacts of Recreation Fees	- Operational and Internal (85%) - Public (77%)
Impacts on Visitor Experience	- Role of Services (100%) - Visitor Perceptions and Preferences (85%)
Impacts on Visitor Access	- Low Diversity on the Forest (92%) - Potential for Visitor Displacement (54%) - Barriers to Information (46%)
a. Frequency of responses across all respondents	

F1. Summary of Recreation Fee Programs by Case

The results in this study provide a description of the USFS recreation fee implementation field and its perceived impacts. This section summarizes implementation and impacts perceived by staff on each forest along with the case characteristics to holistically understand the cases.

Staff on Forest A explained that the region has struggled with the RAC process, as there has been a lack of public interest in the recreation fee program. This coincides with staff that noted the local population, which is comparatively rural and low-income, is less accepting of

recreation fees, compared to tourists who expect to pay a fee. However, staff explained that recreation fees are not likely to displace low-income visitors on this forest because of the quantity of free sites with comparable recreation opportunities. Furthermore, as a forest that receives the majority of recreation fee revenue from SAFs and EAFs, staff expressed funding strategies that distribute revenue to low-earning sites, with a "rising tide lifts all boats" mentality. Staff perceive a lack of visitor diversity on the forest, consistent with Forest A's NVUM report, and staff attribute this to a local population that is not very diverse.

Staff on Forest B shared a different experience with the recreation fee program. As a forest with high visitation, high revenue from special recreation permits, and near an urban center, staff suggested that both locals and tourists are racially and ethnically diverse, however this was not reflected in staff observations on the forest or the NVUM visitor data (see Appendix G). Furthermore, Forest B focused on resource protection as a goal of charging fees, and this could be attributed to high visitation rates. Staff on Forest B expressed that the wealthy local population is generally supportive of recreation fees, however, more could be done to increase diversity on the forest. Additionally, these respondents expressed that high revenue sites tend to receive more attention from higher organizational levels in the USFS, while sites that generate less revenue are at risk of closure.

Forest C, located in the same region as Forest A, expressed a lack of public interest in the RAC process. Staff on Forest C also expressed a "rising tide lifts all boats" funding strategy and receives the majority of its recreation fee revenue from SAFs and EAFs. Staff on this forest prioritized revenue generation and financial sustainability when implementing recreation fees. As a forest receiving a medium level of visitation, staff on Forest C expressed goals for resource protection and discussed how priorities for implementation can change based on individual site

characteristics. Staff on Forest C expressed mixed opinions on visitor displacement, as district-level staff commented that free and low-cost sites mitigate displacement, while forest-level staff expressed that a $5 fee could displace users.

Staff on Forest D, a case receiving high revenue from special recreation permits, expressed limitations in the ability to fund day-use sites, stating that sometimes there is not enough funding to propose fee changes. Staff on this forest noted that the local community is not diverse and special recreation permits bring primarily wealthy visitors. Staff commented that the rural, local population around Forest D is not supportive of the recreation fee program, however general acceptance for paying fees tends to increase over time.

F2. Case Comparisons

As a reminder, cases were selected based on size of recreation fee program, visitation level, visitor income, and recreation fee revenue. Table 12 provides a description of case characteristics, and the corresponding pattern of interview responses is explained by that characteristic.

Table 12: Summary of Shared Interview Results Based on Case Characteristics

		Forest A	**Forest B**	**Forest C**	**Forest D**
Cases	**Location**	Region 6	Region 2	Region 6	Region 4
		Local income: $50,000	Local income: $85,000	Local income: $80,000	Local income: $63,000
	Revenue Type	SAF/EAF	Special recreation permit	SAF/EAF	Special recreation permit
	Visitor Income	Low	High	High	Medium

	Visitation	Low visitation	High visitation	Medium visitation	Low visitation
Interview Findings	**Location**	RAC challenges		RAC challenges	
		Local dislike of fees	Local support for fees		Local dislike of fees
	Revenue Type	Support low revenue sites	Fee acceptance over time	Support low revenue sites	Fee acceptance over time
	Visitor Income		Consideration to visitor rec activity	Consideration to visitor rec activity	
	Visitation		Prioritize resource protection	Prioritize resource protection	

F2.i. Location

Staff on Forest A and Forest C, both in USFS Region 6, shared some challenges and strategies in implementing recreation fees. Specifically, these forests struggled with the RAC process as they were unable to create one for many years. Since the RAC is a regional committee, it might be expected that forests in the same region would share this challenge. Without a functional RAC, Forests A and C were limited in their ability to make changes to the fee program, potentially resulting in lower fees and fewer fee sites than staff preferred or expressed were needed. These similarities show how organizational boundaries can influence policy implementation despite using the same policies and procedures. Some staff observed that the cause of this challenge was low participation from the public in the recreation fee process.

Low public participation can be a reason for RAC exemption (USDA Forest Service, 2022), however staff did not discuss whether this was considered for their program.

Staff on Forest A and Forest D held similar perceptions of the local populations' feelings towards fees. These cases are located in more rural areas and local populations may hold different perspectives, compared to forests in proximity to urban centers. The staff on Forests A and D observed that the local public had difficulty accepting the fee program. Staff perceived that the local political climate, such as a dislike of large government, led to opinions of general dislike for government intervention and local populations felt that paying their taxes would provide funding to the USFS. While staff on all cases expressed, to some degree, that members of the public disagree with fees, the local political perceptions of rural populations appeared to influence public sentiment about fees in a more visible way for staff.

For most cases, the local population near recreation sites influences implementation of policies in informal ways, whether perceived as positive or negative by staff. Forest B, with a wealthy local population, explained that their population base was supportive of the USFS and recreation fees and this helped the program succeed. The influence of location populations, in terms of the degree of urban proximity and income base, is a source of information and consideration for staff during decision-making processes.

F2.ii. Fee Revenue Source

Forest A and Forest C shared forest-level funding strategies. These cases emphasized using recreation fee revenue to support less popular and low-revenue sites. The REA allows for this funding strategy by requiring that only 60% of recreation fees must remain at the site it was collected (see Appendix B). This is reiterated in the USFS directives, however other cases did not identify this as an objective or consideration of their program funding. This difference could

be explained from a regional perspective, however staff on all cases explained funding as a forest-level operation, with occasional discussion of regional influence. One explanation for this revenue expenditure similarity could be that these cases receive the majority of their recreation fee revenue, more than 90%, from collecting SAF and EAF fees, compared to other cases with more prominent special recreation permit programs. As an agency, the USFS receives about 80% of fee revenue from SAF and EAF fees (USDA Forest Service, 2018), making cases A and C higher than average in their collection of these fees. This characteristic could explain the emphasis on supporting low-revenue sites, given the program mostly consists of SAF and EAF sites. This similarity indicates that fee revenue sources have an influence on the funding strategies of a forest and the potential sustainability of low-revenue recreation sites.

Staff on Forest B and Forest D, with large special recreation permit programs, held similar sentiments on the public's acceptance of recreation fees over time. These two cases are very different in the amount of annual visitation they receive and income of visitors, leading to perception of public acceptance possibly credited to the proportion of revenue they receive in special recreation permit fees. Forests B and D receive more than 50% their annual recreation fee program revenue from charging special recreation permit fees. This is higher than the estimated 20% of total fee revenue the agency as a whole receives from special recreation permits (USDA Forest Service, 2018) This revenue is from activities such as river permits and wilderness permits that are not necessarily tied to the use of a recreation site. These activities can attract different users than forests with primary revenue from SAF and EAF sites. This difference in fee type could account for greater acceptance over time. Staff from both cases reported that the public disliked recreation fees and struggled with change from non-fee areas to fee areas, however over time the public grew to accept fees. These staff rarely heard complaints about fees

sites a few years after the change. Given the high existing cost of specialized recreation activities (e.g., downhill skiing, river rafting), it is likely that acceptance of recreation fee changes can be attributed to a visitor-base that is accustomed to fees.

These two examples of similar staff perceptions and decision-making indicate that fee revenue sources could influence forest-wide policy implementation and impact visitor perceptions of recreation fees.

F2.iii. Visitor Income

Forests B and C have higher visitation and higher user income, compared to other cases in this study. Staff on these forests identified the use of information on visitors' recreation activities in the decision-making process on recreation fees. This similarity in user type could explain the attention given to the recreation activities visitors engaged in, given higher income visitors could be more likely to participate in specialized activities. This explanation is supported by the NVUM data for each case, where downhill skiing is cited as a common activity amongst visitors. This could imply that forests with higher income visitors are more likely to cater towards specialized activities compared to other cases. On the other hand, forests that invest in specialized infrastructure could attract higher-income visitors. Whether specialized infrastructure or visitor demand came first in this process, it can be deduced that forests with higher income visitors are more likely to consider demand for recreation activities and facilities in the decision-making process, compared to other forests. This intersection between recreation activity and visitor income should be studied further to determine the drivers of staff norms during implementation.

F2.iv. Visitation Level

Staff on Forest B and Forest C shared resource protection as a priority of charging recreation fees and maintaining recreation sites. Given these forests face higher visitation rates than other forests, this focus could be attributed to an increase in visitation and damage to the natural environment. This indicates that greater visitation could increase the importance of resource protection and need for investment into avoiding or mitigating human-caused damage.

F3. Role Comparisons

Staff on the forest-level of implementation and site/district-level had different perceptions on recreation fees and their implementation. This section examines the major differences in interpretation and implementation of recreation fees and the perceived public impacts. Lastly, internal differences in perception between staff on the same forest are discussed.

F3.i. Policy Interpretation and Implementation

Staff on the forest-level most frequently discussed resource protection as a policy objective, compared to other staff. These participants considered resource protection in their objectives of charging fees and in the decision-making process far more than other staff members. These forest-level staff also spoke about the Congressional intent behind the REA and how this shapes their perceptions of implementation. This indicates that higher-level staff are more connected to written policies in their interpretation and implementation of the recreation fee program.

F3.ii. Perceived Public Impacts

Staff on the district-level were more aware of the public's perception and experiences at recreation sites, compared with forest-level staff. Site and district level participants discussed the public's negative perception towards fees and were able to provide anecdotes on why the public might feel this way more frequently, and in more detail, than forest-level staff. Staff on the district-level spoke about the questions and comments they receive from the public. Participants on this level also commented on the experiences of staff at fee sites. These respondents noted the

uncomfortable situations staff can be put in when interacting with the public. District-level staff perceived the recreation fee program and its impacts based on lived experiences and interactions with the public.

F3.iii. Internal Differences

Staff on different levels of Forests B and C held different perceptions of the recreation fee program, indicating variation in perspectives on the same forest. On Forest B, staff from different districts had different views on the funding of the recreation program. In this case, the districts had different visitation levels and revenue outputs, which led to different perspectives and operations of the fee program. For example, the high visitation district was able to provide new amenities and work closely with local partners to increase staffing and funding for the sites. Staff on this district were concerned about high use creating resource damage and explained that the public supported recreation fees due to need for resource protection. On the lower visitation and revenue district, staff spoke about the need to close sites and borrow from the forest-level funds to keep sites open. This district was putting sites into concessionaire operation and voiced fewer concerns about resource damage and more about maintaining operations at recreation sites.

Staff on Forest C held different perceptions about the potential for visitor displacement on the forest. When discussing whether the cost of recreation fees could displace low-income users, staff held different perspectives. This difference was most apparent between district staff and forest-level staff. Staff from the Supervisor's Office strongly expressed that increasing fees by any amount would disproportionately impact some populations with lower income. In contrast, district-level staff commented that displacement was not likely, due to the low cost of recreation sites and non-fee opportunities.

These differences in perception and experiences indicate that internal communication and norms are not consistent in every case. Individuals understand the recreation fee program and its impacts differently depending on their own vantage points.

Chapter V: Discussion and Future Direction

A. Discussion

The first objective of this study was to understand the USFS implementation of recreation fees. To achieve this objective, staff goals for charging recreation fees and their sources of information during the decision-making process were examined. The main findings are that: (1) USFS staff prioritized similar policy objectives to those in the USFS Recreation Fee Manual and expressed agreement with the policy logic model, but identified a lack of capacity to achieve them in full, (2) USFS staff use formal and informal mechanisms during implementation, however staff experiences with these mechanisms vary, and (3) staff must make tradeoffs with limited funding and information, which are exacerbated with rising visitation.

The second objective of this study was to understand staff perceptions on impacts of the recreation fee program and determine what impacts staff perceive to public experience and access. Staff perceived the following impacts: (1) impacts to the organization itself, which includes staff, site, and financial impacts, (2) visitor experiences are negatively impacted by a negative perception of recreation fees due to ineffective communication, (3) low public engagement in the fee program may be dependent on local demographics, and (4) displacement can occur but is not necessarily a negative impact.

The study findings suggest several important conclusions and implications regarding policy implementation and potential equity considerations for the USFS recreation fee program.

A1. USFS Implementation of the REA

USFS staff cannot fully achieve the objectives of the REA during implementation due to a lack of financial resources. Staff decisions during implementation are informed by formal and informal procedures and these mechanisms can exacerbate inequities.

The discussion on the USFS implementation of the REA was informed by a bottom-up approach to implementation, where the decisions of mid-level organizational staff shape policy objectives and outcomes. The bottom-up theory helped develop a narrative on the decisions of USFS recreation staff and the many policies and actors they must consider when implementing the REA and USFS Directives. This study contributes to the literature on street-level workers by expanding the information on federal policy implementation at a large, decentralized agency. It is apparent that staff used discretion when implementing the REA and USFS directives. Staff must prioritize objectives because they lack the financial resources to implement the policies as intended. These decisions by USFS staff when implementing the REA are consistent with bottom-up theories that street-level staff develop adaptations to manage large amounts of work with inadequate resources (Lipsky, 2010).

By viewing the USFS implementation of the REA as a strategic action field, the organizational layers and informal connections between decision-makers was a focus of this study. This helped capture the complexity of the USFS recreation fee program and decisions of implementing actors. There is variation in policy implementation and outcomes because of staff discretion, which is influenced by the present task, organizational setting, and larger political value (Sandfort and Moulton, 2015). This is seen in the USFS recreation fee program, as the characteristics of each forest and recreation fee program, and local populations influence staff discretion when implementing the REA and USFS directives. Despite this use of discretion, USFS staff interpreted the policy in a consistent manner, indicating an understanding of the

policy logic model and objectives. The policy messages were not distorted throughout organizational levels. A strategic action field framing facilitated recommendations that are specific to the formal and informal mechanism that staff use in the field. These recommendations are focused on the effectiveness of policy implementation and equity of implementation outcomes.

The REA and USFS Directives are not distorted throughout implementation, however staff do not have the capacity to implement the policies as intended. In particular, financial sustainability objectives were least prioritized and described as unachievable in some forests. Staff explained that increasing facilities and services at recreation sites is not financially feasible, as forests are experiencing challenges with maintaining the current levels of infrastructure. This is consistent with a bottom-up theory stating street-level workers use discretion to implement policies under constraints (Lipsky, 2010). USFS staff face financial constraints that require discretion in prioritizing policy objectives and allocating funding.

The formal and informal mechanisms staff use when implementing recreation fees appear to be influenced by forest location and visitor activities. Staff perceptions on the use of formal procedures were mixed; some found them helpful in guiding processes, yet many were said to be outdated and not followed closely enough. For RAC processes, there are challenges with public engagement in some regions and local political climate influences how the public perceives the USFS and staff interactions with local visitors. This impacts the ability of the USFS staff to achieve the intended goals of the REA.

While revenue generation is an objective of the USFS fee program, there are concerns with unequal distribution of revenue and benefits to the public. The informal networks established within the recreation fee program can differ based on program characteristics,

resulting in potentially inequitable internal support and implementation of the fee program across forests. District staff on the same forest reported different experiences with regional staff depending on the size of their recreation fee program and income it generates. The site funding discrepancy was expressed more by staff on forests that generated revenue from special recreation permit fees. Forests with large SAF and EAF revenue sources supported low-revenue sites with fee revenue from high-earning sites. The REA requires 80% of revenue collected at a specific site to return to that site, which may be reduced to 60% if the revenue exceeds "the reasonable needs of the unit" (16 U.S.C. 6806). This vague wording could account for differences in site funding, as the "reasonable needs" and boundary of a "unit" is ambiguous. In this regard, staff use discretion to when interpreting the REA and this discretion results in inequitable outcomes. At the same time, there is an argument for investment in districts with higher visitation that will benefit the most people.

Visitation appears to be rising at a faster rate than can be matched by information provided to implementors and the process to change fees or increase site development. Visitation to national forests has risen about 18% in the last 10 years (USDA Forest Service, 2020; USDA Forest Service, 2014). Specifically, summer visitation to low-developed sites increased around 40% from FY2019 to FY2020, during the Covid-19 Pandemic (Avitt, 2021). This rapid increase in use is likely to exacerbate the existing challenges observed by staff in the recreation fee program, as staff already work under constraints. Staff decision-making was often explained with uncertainty around visitation patterns, activities, and expectations despite the use of policies and procedures, such as the ROS and NVUM.

A2. Equity and Access from Staff Perspectives

Staff perceived that recreation fees can displace users from fee sites to non-fee sites and there is a gap in the populations USFS communication reaches, resulting in inequities. Participation in recreation fee processes appears to be driven by high-income recreationists who have different preferences and perspectives on recreation fees compared to low-income users, furthering the inequities of recreation fee procedures.

Staff perceived recreation fees as impacting the agency itself. As the agency becomes more reliant on recreation fees to maintain operations, the focus of the agency shifts to encourage business-like strategies. This is detrimental to staff that must work through uncomfortable situations at recreation sites or disagree philosophically with charging fees. Furthermore, as recreation on National Forest System lands rises, these agency impacts will continue to increase.

Staff commented on negative public perceptions of recreations fees as an impact to decision-making, staff experiences, and visitor experiences. While the REA and USFS Directives communications requirement are implemented (see Appendix C), the same audiences are not being reached. Previous studies indicate that information can increase public support for recreation fees if the communication conveys that fees are necessary, generate benefits, are affordable, and fair (Bengston and Fan, 2002). Communication about recreation fees should focus on increasing public trust in agencies (Winter et al., 1999). Staff perceived that USFS communication does not communicate the necessity and benefits of fees or foster trust. Staff also expressed that a lack of public engagement is a negative to both the agency and visitors, as high-income recreationists are more likely to participate in fee change processes than low-income recreationists. This is consistent with literature on the public's acceptance of recreation fees, as visitors with higher incomes are more likely to visit fee sites, compared to low-income recreationists (Lamborn et al., 2017) and higher income respondents prefer to fund recreation

sites by paying fees, while lower income respondents prefer to fund recreation sites by paying taxes or volunteering their time (More and Stevens, 2000). Only certain subgroups are participating in the recreation fee process and this inequity negatively impacts the program and the public.

Visitors to public land who do not visit fee sites are worse-off due to their inability, or unwillingness, to pay recreation fees. Staff believe that visitor displacement is an effect of recreation fees, but most respondents did not perceive it as a negative impact of the recreation fee program. Dissonance was present in staff responses because if a user is choosing a free site because they cannot pay the fee at their preferred site, they are (by definition) being displaced from that site. This perception is supported by literature that concludes recreation fees can displace visitors to sites that cost less (Lamborn et al., 2017; More and Stevens, 2000; Rice et al., 2022). The improved visitor experiences at fee sites, due to the amenities and services required at these sites, demonstrates the inequity of recreation fees on low-income users and the need for more research centered on user displacement from fee sites.

This study's findings on the perceived impacts of USFS recreation fees to the agency and the public contributes to the literature on recreation fees. The findings indicate that communication from the USFS plays a large role in public perceptions of the recreation fee program, potentially determining who recreates where on the forest. This study found inequities in the public's participation in USFS recreation fee processes, which has implications for agency decision-making and what groups of the population have a say in changes to the fee program. Given high-income recreationists are more likely to support recreation fees compared to low-income recreationists (More and Stevens, 2000), the current public participation mechanisms further exacerbate inequities in outdoor recreation. Furthermore, this study supports previous

findings that recreation fees could be attributed to displacement from fee sites to other areas, and indicates that staff share this belief, often with dissonance about the experience visitors receive at free sites compared to fee sites.

The use of a multi-case approach in this study informed the ways in which forest characteristics can influence implementation of a federal policy and the localized impacts perceived by USFS staff. This approach highlights the necessity for forests and districts to implement policies with consideration to the recreationists their forest receives, and more importantly, doesn't receive. Future studies should specifically investigate the characteristics of forests and how these influence fee program implementation and impacts on visitors.

B. Implications

This section discusses the findings of this study and how they might be applied within the USFS recreation fee program. First is a discussion of the management implications of the USFS implementation of the REA and USFS directives. Second, recommendations on reducing impacts to the agency and public are provided based on staff perspectives on the impacts of the recreation fee program. This discussion is followed by recommendations for future research.

B1. Implementation of Policies and Procedures

B1.i Inadequate federal funding

Staff focus on maintaining the current operations and managing present visitation levels which require more resources than the system can handle, resulting in the inability to work on enhancement and financial sustainability at recreation sites. This indicates a need for increased funding from Congress or other sources. Over the past decade, the USFS has seen a 17.5% decrease in Congressional funding, contrasted with a 18% rise in recreation visits (USDA Forest

Service, 2020; USDA Forest Service, 2020; USDA Forest Service, 2014). This mismatch is at the core of the challenges and limitations expressed by USFS staff. While raising fees is an option for forests, staff expressed that negative public perceptions of the fee program, cost of proposing recreation fees, and the inability to maintain fee sites in the future, greatly limit the feasibility of fee increases to solve this problem. The USFS motto, "caring for the land, serving people" is not able to be fulfilled in recreation without increased Congressional appropriations to the USFS Recreation, Wilderness, and Heritage program.

B1.ii. Equitable funding distribution

USFS recreation program funding needs to be distributed to Ranger Districts in an equitable way to reduce the funding inequities faced by low-revenue districts. Increasing funding to the USFS will improve overall capacity and ability to provide services to the public, however specifically allocating funds to districts with less local support and more dispersed sites will elevate these areas of the forest. Congressional appropriations are used to support the management of both fee and non-fee sites and while appropriated dollars are necessary for all sites, these funds should be prioritized to free sites and low-earning sites. Distributing these funds will help reduce the disparity in financial support across forests, help maintain the level of free and low-cost recreation opportunities available to visitors, and help reduce displacement of low-income recreationists.

B1.iii. Update policy guidance

Manuals, guidelines, and procedures have not been updated in over 10 years and the use of recreation on national forest lands is rapidly increasing (USDA Forest Service, 2020). Ensuring these processes are well-informed will lead to an improvement in implementation. The

policies and procedures used to make changes to the fee program and develop recreation sites, even if originating at a national level, need to be revised at the forest-level. These should be updated in consideration of the most recent NVUM data available (5-year period), as this data is on a forest-level and provides useful information on who is visiting the forest (and who is not), what visitors experience, and what improvements the public prioritizes. Forest-level policy updates should be informed by this data and encourage districts to adapt these policies to fit their needs. Procedural updates should recognize the need for adaptive capacity by forests and districts. Adaptive capacity involves being proactive, flexible, and making difficult choices in the face of constraints (Cerveny et al., 2020). A one-size-fits-all approach will not be effective across different districts due to the different populations they serve and recreation opportunities available. Increasing the adaptability of policies and management can encourage innovative solutions to the problems faced by districts. Accountability measures should remain at a national level to ensure policy adaptation is not having inequitable outcomes.

B1.iv. Reducing uncertainty

Uncertainty surrounding the extent of visitor expectations and preferences at recreation sites can be reduced by increasing data on visitor expectations at recreation sites. The NVUM currently collects data on visitor satisfaction with their recreation experience, however visitors could have high levels of satisfaction with what is present at recreation sites but prefer more to be offered, if that were included in survey options. Additional questions should be added to the NVUM to better inform recreation fee program staff of visitor expectations and preferred use of fee revenue. This additional information would be beneficial in adapting policies and procedures that are data-driven with the public's interest in mind.

B2. Equity and Access Impacts of Recreation Fees

This section discusses the perceived impacts of recreation fees on the organization and the public in terms of actions that can be taken by the USFS.

B2.i. Reduce communication gaps

Communication is important in creating a positive recreation experience for users and there is currently a lack of accessible and clear information. The USFS website has recreation site finder tool, the Interactive Visitor Map (www.fs.fed.us/ivm), where visitors can find recreation sites based on activity (e.g., hiking, camping, fishing) and geographical location. This map provides information on the site; however, a user must visit individual forest webpages to learn whether the site has a fee. This information can be difficult to navigate, especially for first-time users, and does not clearly communicate information on recreation fees. The USFS should add a feature to the Interactive Visitor Map that filters sits by fee and non-fee. This layer would allow for visitors to find sites that align with their needs and access information on fee sites with specific amenities. Furthermore, this feature could provide information on the necessity of fees and what they provide at recreation sites, increasing the visibility of recreation fees and their benefits to the public.

B2.ii. Increase visitor diversity

Many staff noted that their forest primarily sees visitation from White, middle-upper class visitors; these visitors are not representative of the United States population. Solutions from staff involve communication resources and innovative solutions, such as partnerships and programs to encourage more diversity and increase inclusion on national forests. During the early stages of the Rec Fee Demo Program there was a push to increase innovative implementation of recreation fees, as creative fee collection methods could improve visitor experiences, such as off-peak and

on-peak pricing (Government Accountability Office, 2001). The use of local partnerships was an approach that appeared to be successful in areas where the public was accepting of recreation fees, aware of the challenges on the forest, and had a large income-base. The USFS could encourage partnerships with local groups that bring diverse communities into recreation. Furthermore, partnerships that decrease costs for low-income users would help increase access to for recreationists and build relationships with underrepresented groups.

B2.iii. Reduce visitor displacement

Another mechanism for reducing displacement on forests and adjusting to the inequities of recreation fees is increasing the number of fee-free days offered by the USFS and communicating these opportunities effectively. Currently, the USFS offers 5 fee free days (USDA Forest Service, 2022). Increasing the number of fee free days will provide recreation opportunities to visitors that are displaced by the presence of recreation fees. Furthermore, these days should be prioritized in USFS communication with local population by posting on the USFS website, the Interactive Visitor Map, and in local news. Fee free days are not reducing the inequities of recreation fee if they are not communicated to the populations most impacted by fee policies.

B3. Future Research

While the findings from this study inform USFS recreation managers and contribute to literature, there are many areas that future research should investigate, such as communication effectiveness, the rate of displacement, visitor perceptions of free sites as substitutes, and the inequities of public participation in the fee program,

There is not a current mechanism for understanding the degree to which current agency communication highlights the necessity and benefits of fees, and the groups this communication reaches. Currently, proposals to change the fee program are published in the Federal Register, local news, and posted at recreation sites. These locations appear to be ineffective in reaching subgroups of the population that are not currently represented in recreation fee processes and on national forests. Further research should study the effectiveness of USFS recreation fee communication and the equity of access to this information.

Staff noted there is a definitive lack of information on the sources of displacement and rate of occurrence and there is difficulty in the ability to observe and measure displacement, as those visitors are missing from recreation sites. This is a limitation to many studies on the displacement of low-income visitors from recreation fee sites (More, 1999). More research should be conducted on the displacement of low-income users at recreation fee sites. Staff believe that free recreation sites are an equal substitute for fee sites, however the recreation offerings, location, and visitor preferences may influence whether recreationists view these opportunities as equal. Understanding the degree to which visitors feel free sites are equal substitutes to fee sites can help determine the rate of financial displacement. The USFS should consider studies that attempt to capture the preferences of visitors at recreation sites and examine the factors of their decision in choosing to recreate at certain sites.

This study shows that RACs are an integral and highly influential part of the recreation fee decision making process, as staff noted their approval or disapproval to be a determinant of whether fees were changed. The USFS has previously experienced procedural challenges with RACs which have not been addressed (see Appendix E). Furthermore, staff identified wealthy populations as supporters of recreation fees and participants in these processes. The composition

of RACs in terms of population demographics has not been documented. Future research into USFS recreation fee implementation should examine the decision-making process and considerations of RACs, and well as their representation of recreationists.

C. Conclusion

The limitations and discrepancies in the recreation fee program policy implementation negatively impact the agency and visitors to public lands. Implementation can have detrimental impacts on access to recreation sites, both fee and non-fee. These impacts heighten the inequities of recreation fees on National Forest System lands.

USFS implementation of the REA does not distort policy. Rather, staff lack the resources to achieve the policy objectives in full and the outcomes of implementation exacerbate inequities in outdoor recreation. Increasing appropriated dollars with equitable allocation and improving communication and efforts to include underrepresented groups in USFS recreation processes can reduce inequitable outcomes of implementation.

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Appendix A: Specifications of the Rec Fee Demo Program

For setting fee prices, the Rec Fee Demo Program determined the amount of fees charged should be "based upon a variety of cost recovery and fair market valuation methods" to establish a broad scope of feasibility testing (Public Law 104-134, 1996). This allowed for agencies, regions, and sites to have greater control of price setting. Furthermore, the Rec Fee Demo Program provided guidance on revenue distribution in that "amounts available for expenditure may only be used for the area, site or project concerned, for backlogged repair and maintenance projects" (Public Law 104-134, 1996). This specification was included to ensure that fee revenue was used to increase the quality of visitor experience and protect natural resources (Public Law 104-134, 1996). One unresolved issue reported from the Government Accountability Office regarding the Rec Fee Demo program is related to the high amount of cash on USFS sites without effective security (Government Accountability Office, 2006).

Appendix B: Specifications of the REA

The REA set limitations and requirements of implementing agencies, which are be examined further detail below.

The REA limited expenditures of recreation fee revenue to: repair, maintenance, facility enhancement directly related to visitor enjoyment, visitor access, health and safety; interpretation, visitor information, visitor services, visitor needs assessment, and signs; habitat restoration directly relating to wildlife-dependent recreation limited to hunting, wildlife observation, or photography; law enforcement related to public use and recreation; direct operating or capital costs associated with the recreation fee program; and fee management agreement establishment, and visitor reservation services. The site-designated revenue cannot be used for biological monitoring on Federal recreation lands and waters (16 U.S.C., 6807). Of the remaining revenue totals, no more than 15-percent can be used by the region for administration, overhead costs, and indirect costs relating to the recreation fee program (16 U.S.C., 6807). The USFS defines *administration, overhead costs, and indirect costs* in their 2013 Handbook as a "cost incurred to manage the Recreation Fee Program that is not directly associated with public recreation use" (USDA Forest Service, 2013). These policies allow for individual forest offices to allocate and spend funds as they see fit and is a unique process for each forest.

Compared to the National Park Service and National Wildlife Refuge System, the USFS is prohibited from charging an entrance fee to Forest Service land. This type of fee, for entrance to a unit, was permitted under the Rec Fee Demo Program. During the transition from the Rec Fee Demo Program authority to REA, many USFS sites had to add required facilities or close their operation of fee collection (U.S. Department of the Interior and U.S. Department of Agriculture, 2007; Government Accountability Office, 2006).

The USFS directives attempt to provide more structure to development practices and defines a *developed recreation site* as "a discrete place containing a concentration of facilities, infrastructure, and services used to provide recreation opportunities to the public and evidencing a significant investment in facilities and management" (U.S Forest Service, 2018). Furthermore, the USFS defines a *recreation facility* as "anything human-built or -placed in the landscape, including individual features, infrastructure, and collections of features that support managed recreation opportunities and experiences" (USDA Forest Service, 2018).

The following list outlines the requirements of charging a standard amenity fee.

"National Volcanic Monument, destination visitor center or interpretive center, or an area with:
- significant opportunities for outdoor recreation
- substantial level of capital improvements
- allow for efficient fee collection
- designated developed parking
- permanent toilet facility
- permanent trash receptacle
- interpretive signage
- picnic table
- security services." (USDA Forest Service, 2013).

The following list outlines the requirements of charging an expanded amenity fee.

- "Use of developed campground with 5 of following: tent or trailer space, picnic tables, drinking water, access roads, collection of the fee by an employee, reasonable visitor protection, refuse containers, toilet facilities, simple devices for containing a campfire.
- A highly developed boat launch with specialized facilities such as: boat lifts, multi-land paved ramps, paved parking, toilet facilities, boarding floats, loading ramps, or fish cleaning stations
- Rental of cabins, boats, stock animals, lookout towers, historic structures, group day use or overnight sites, audio tour devices, portable sanitation devices, binoculars, or other equipment
- Use of hooks ups for electricity, cable, or sewer
- Use of sanitary dump stations
- Participation in an enhanced interpretive program
- Use of reservation services
- Use of transportation services

- Use of areas where emergency medical services are administrated from facilities staffed by the Forest Service or under contract with the Forest Service" (USDA Forest Service, 2013).

The following list outlines the restrictions for charging recreation fees under the REA.

- "To any person under 16 years of age
- Any person engaged in non-recreational activity under a valid issued permit
- For outings conducted for noncommercial educations purposes by schools of academic institutions
- Parking, picnicking, stopping on roads and trailheads
- General access unless authorized under Act
- Dispersed areas with low or no investment unless authorized by Act
- Passing through without using facilities and services (driving, walking, boating, horseback, hiking)
- Camping in undeveloped area without minimum number of facilities
- Use of overlooks, scenic pullouts
- Non-commercial travel between 2 spots
- Any person with right of access by hunting or fishing (via law or treaty)
- Any person engaged in conduct of Federal, State, Tribal, or Local government business
- For special attention or extra services necessary to meet the needs of the disabled." (USDA Forest Service, 2013).

Appendix C: Specifications of Forest Service Recreation Fee Manual

In addition to the REA, the USFS specified recreation fee procedures and policies in their recreation fee manual, discussed in detail below.

The USFS criteria for establishing recreation fees state that (1) fees must be equivalent to the benefits and services provided to visitors with quality and variety of recreation opportunities, (2) the aggregate effect of fees on users and providers must be considered, (3) fees for comparable services operated by the Forest Service, other public agencies, and private entities must be considered, (4) public policy or management objectives served by fees must be considered, (5) impacts of fees such as direct and indirect costs of site operation, improvement, and maintenance, economic and administrative feasibility of fee collection, and impacts on tribal traditions and cultural activities must be considered, (6) input from the public must be obtained in accordance with the REA, and (7) a single fee should be offered where facilities and services are clustered to avoid charging multiple fees for similar uses or programs (USDA Forest Service, 2013). In addition to the basis for recreation fees described above, the USFS established criteria for determining the value of recreation fees. The criteria are as follows:

> 1. "Develop a recreation fee strategy for each administrative unit or, if complexity warrants, for individual sites or services that includes, at a minimum:
>
> a. A description of the recreation fee sites or areas covered by the strategy.
>
> b. Market analysis, including an assessment of:
>
> (1) The population being served by the recreation sites and areas and the level of demand for those sites and areas;
>
> (2) The degree to which fees for the recreation sites and areas compete with recreation fees charged by other public and private entities; and
>
> (3) The value of facilities and services provided at the recreation sites and areas compared to recreation facilities and services offered by other providers in the vicinity.

c. A financial analysis, including projected development, operation, and maintenance costs and projected fee revenues for the useful life of the recreation fee sites and areas.

d. A description of public policy and management objectives served by charging recreation fees, regardless of whether they are perceived as a benefit by visitors.

e. An explanation of how the public will be informed as to how the fees collected at the recreation sites and areas will be spent.

2. Reference relevant past analyses or planning efforts, such as a recreation facility analysis; analysis in the applicable land management plan; or a national, regional, or forest recreation fee plan, in the recreation fee strategy.

3. Base recreation fees on an assessment of local market conditions and demand. Strive to avoid competing unfairly with local private sector recreation providers.

4. Recreation fees should not exceed the estimated cost of delivering the services and facilities covered by the fees, including capital investment costs and the cost of fee collection and administration, over the expected duration of the services and facilities.

5. Regional and national templates may be designed to assist with development of recreation fee strategies" (USDA Forest Service, 2013).

The USFS allows the following expenses for recreation fee revenue:

- "Repair, maintenance, and facility enhancement directly related to visitor enjoyment, visitor access, and health and safety. These expenses include day-to-day facility maintenance; deferred facility maintenance; capital investments in facilities, including site reviews, surveys, and design; trail maintenance; and facility expenditures to meet applicable accessibility guidelines.
- Interpretation, visitor information, visitor service (including administration of commercial public service special use permits), visitor needs assessments, and signs.
- Habitat restoration directly related to wildlife-dependent recreation that is limited to hunting, fishing, wildlife observation, or photography.
- Law enforcement related to public use and recreation.
- Direct operating and capital costs for the Recreation Fee Program. Examples include equipment purchases of more than $5,000 for fee collection, Recreation Fee Program salaries, fee compliance and enforcement costs, fee envelopes and other printed materials for the Recreation Fee Program, accounting and banking for recreation fees, fee collection training, utilities for facilities used for fee collection, and repair and maintenance of equipment, buildings, and vehicles used for fee collection.
- Expenses related to entering into and administering fee management agreements, such as the NRRS contract." (USDA Forest Service, 2013).

The USFS does not authorize fee revenue expenditures on biological monitoring on National Forest Systems lands under the Endangered Species Act or for employee performance awards and recognition (USDA Forest Service, 2013).

For public participation, the USFS Recreation Site Handbook requires the following public input on fee proposals, in addition to the requirements under the REA. At a minimum, USFS staff proposing fee changes must publish a public notice and comment period in local newspapers and publications, post notices of the proposal and public comment opportunities at or near the recreation site, give a briefing to local legislative staff, make the proposal available to the public upon request at a local Forest Service office, and consult with tribal officials when appropriate (USFS, 2013). The REA requires public notice posted in the Federal Register 6 months before fee establishment and the creation of advisory committees (16 U.S.C., 6803).

Appendix D: Specifications of Forest Service Development Manual

The following process is outlined in the USFS development manual for adding amenities and services to developed recreation sites.

1. "Follow a logical project development process.
2. Improve Agency economic sustainability through design choices that reflect lifecycle costs and efficient operation and maintenance.
3. Implement goals of the *Framework for Sustainable Recreation*.
4. Provide high quality developed recreation settings that facilitate meaningful connections with the outdoors for visitors.
5. Restore developed recreation settings that have been impacted by excessive or inappropriate use or declining ecosystem health.
6. Develop sites to harmonize with the surrounding natural environment" (USDA Forest Service, 2018).

Table A identifies characteristics of recreation sites across differing development scales and the ROS. This information is used by recreation managers to make decisions about the management and development of recreation sites. The steps for project development are first, a proposal phase with scope, funding, management objectives, and basis for need which involves completing a Recreation Facility Analysis (RFA), following the framework for sustainable recreation, consulting the ROS, and other considerations. Second, the planning phase requires an environmental analysis under the National Environmental Policy Act (NEPA), market research, and other planning, design, and cost considerations. Third, the design phase involves crafting alternatives, selecting materials, and finalizing cost estimations. This phase is where accessibility, safety, and specific facility design are considered. Lastly, the implementation phase and operation and maintenance phase are where facility evaluations and use monitoring determine the adaptations necessary for facilities in the future (USDA Forest Service, 2018).

To further aide development, the USFS describes the potential levels of development of recreation sites on a scale of 0-5. These development levels capture different recreation settings,

number of amenities and permanent infrastructure, and type of management priorities likely present at each site. The ROS includes the following designations, from least modified to most: primitive, semi-primitive non-motorized, semi-primitive motorized, roaded natural, rural, and urban.

Table A: Recreation Opportunity Spectrum and Site Development			
Dev. Scale	*Typical ROS*	*Typical Site & Facility Characteristics*	*Typical Management Emphasis*
0	Any ROS setting	- User-created dispersed use - No FS investment or amenities	May include monitoring of resource conditions
1	Any ROS setting	- Primarily user-created dispersed use area - Informal vehicle circulation and parking - Minimal FS investment, may include signage	Resource protection
2	Any ROS setting	- Defined vehicle circulation and parking with minimal FS investment to accommodate user-created dispersed use area - Limited amenities may include signage, tables, fire rings. In rare instances may include vault toilet	Resource protection
3	Roaded Natural	- Designed developed site with significant FS investment and delineation - Amenities may include signage, fire rings, tables, toilet, waste collection, potable water - Roads are surfaced; maintenance level 3 or 4	Visitor comfort & Resource protection
4	Roaded Natural, Rural, Urban	- Designed developed site with significant FS investment and delineation - Amenities include signage, interpretive materials, fire rings, grills, tables, waste collection, potable water, flush toilets - Roads, parking, and paths are surfaced and may be paved; maintenance level 4 or 5	Visitor comfort, Resource protection
5	Rural, Urban	- Designed developed site with significant FS investment and delineation - Amenities typically include signage, interpretive displays, fire rings, grills, tables, waste collection, potable water, flush toilets. May include utility hook-ups, showers, and laundry facilities. - Roads, parking, and pathways are clearly delineated and are often paved; maintenance level 4 or 5.	Visitor comfort, Resource protection

Appendix E: Recreation Resource Advisory Committees

The composition of RACs under the REA involves 11 members nominated by the Governor and county officials from the State or region of the RAC; for the USFS, these nominations must be approved by the Department of Agriculture Secretary. The REA requires "broad and balanced" representation of the recreation community, specifying five persons who represent recreation users, three persons who represent interest groups, and three persons to represent State tourism, Indian tribes, and local government interests. All RAC meetings are open to the public and require a quorum of 8 members to constitute an official meeting (16 U.S.C., 6803).

The USFS Handbook instructs consultation and coordination with the Regional Recreation Fee Coordinator in developing fee proposals and meeting public participation requirements. Furthermore, the Handbook describes how recommendations made by RACs should be used in the decision-making process.

These recommendations, which must be approved by the majority of members in each category and have documented public support, will be sent to the Regional Forester who may implement the proposal as presented if no changes were recommended. If minor changes are recommended by the RAC, the Regional Forester may implement the changed proposal without further public notice. If the RAC recommends major changes, the Regional Forester cannot implement the modified proposal without additional public comment and notice. Lastly, if the Regional Forester rejects the RAC's recommendations, a written explanation of the reason must be submitted to the Department of Agriculture Secretary, where the recommendation and rejection will be assessed (USDA Forest Service, 2013).

Not all USFS regions operate with a RRAC. With approval from the USFS Secretary and State Governors, states can replace a RAC with a state board (16 U.S.C., 6803). For this

exemption, a lack of sufficient interest must be shown. In this case, the RAC would not be balanced in representation of points of view and functions could not be performed (16 U.S.C., 6803). Currently, four states are exempt from operating a RAC.

The USFS and Bureau of Land Management expressed limitations to the RAC process in the 2012 Triennial Report to Congress. More recent reports have referred to this 2012 report, indicating that these are ongoing. Please refer to the 2012 Triennial Report to Congress for additional details.

Appendix F: USFS Staff Responsibilities

All policy responsibilities are summarized from USFS Manuals on Recreation Fees, Development, and Special Uses. The following section summarizes the responsibilities of staff who oversee: the recreation fee program, development of recreation sites, and special recreation permits. These responsibilities are not comprehensive of all elements of the recreation fee program; however, they represent main characteristics of the roles most closely related to the implementation of recreation fees on the National Forest System lands.

Table B: Washington Office: Chief, Deputy Chief, and Associate Deputy Chief

Recreation	*Development*	*Special Uses*
1. Reviews rejections of RRAC recommendations. 2. Submits reasons for proposal rejections, if necessary.	N/A	Provide direction, leadership, and administration of the special-uses programs, policies, and procedures. Serve as reviewing officer on appeals of special-uses.

Table C: Washington Office: Directors

Recreation	*Development*	*Special Uses*
Review fee changes prior to RAC review and recommendation	N/A	1. Advise the Chief, Deputy Chief, and Associate Deputy Chief on special-use activities, programs, policies, and issues. 2. Ensure coordination among regions for major special-use activities through national meetings, committees, correspondence, and staff advice. 3. Maintain relationships with the public, Congress, and organizations that have concerns about the special-use program. 4. Recommend objectives and priorities for program management. 5. Provide leadership in national training programs and support and consistency to regional training. 6. Conduct on-site and off-site monitoring and field reviews of special use activities to ensure objectives

		are met. 7. Maintain a database system to monitor special-uses program and facilitate information requests. Establish standards for data systems and management.

Table D: National Recreation Fee Program Manager		
Recreation	*Development*	*Special Uses*
Maintain a record of all recreation fee proposals and review recreation fee proposals and Federal Register notices and news releases pertaining to the recreation fee program prior to publication.	N/A	N/A

Table E: Regional Forester		
Recreation	*Development*	*Special Uses*
1. Review and approve fee proposals recommended by the RRAC 2. Recommend to the Secretary rejections of RRAC recommendations 3. Review, approve, and sign Federal Register notices 4. Review and approve exceptions to providing annual, senior, and access passes.	1. Seek partnerships to share in development, cost, and labor 2. Approve overnight facilities in high hazard areas. 3. Identify and update regional priorities for the recreation capital investment program.	1. Establish management direction that ensure integration of special-uses into regional programs and consistency of plans with national policy. 2. Provide consistency and coordination in special-use management among Forests and Regions. 3. Provide training and technical assistance to Forest Supervisors to ensure special-uses are managed within guidelines, policy, regulations, and laws. 4. Maintain communication with individuals and organizations with regional concerns about the special-uses program. 5. Evaluate special-use applications and complete environmental analysis and documentation prior to issuing authorizations. 6. Review for adherence to policy before permits are issued when capital investment exceeds $1,000,000 for winter sports resorts and $500,00 for

		other resorts.

Table F: Regional Recreation Director		
Recreation	*Development*	*Special Uses*
1. Ordering annual, senior, access, volunteer passes, and military passes and distributing them. 2. Transmitting the record for recreation fee proposal and recommendations on proposals. 3. Reviewing recreation fee proposals for content and completion of requirements prior to arranging for proposals to be presented to the RAC and Regional Forester.	N/A	N/A

Table G: Forest Supervisor		
Recreation	*Development*	*Special Uses*
N/A	1. Prepare, review, and approve designs and plans. 2. Develop sites and facilities in accordance with directives 3. Use monitoring information to inform development of sites.	1. Provide management direction to ensure integration of special-uses into programs at the Ranger District level. 2. Ensure integration of special-uses with other resources management in developing and implementing management plans. 3. Maintain communication with organizations and individuals with interest in special-uses. 4. Identify needs and technical assistance/training to Ranger Districts to ensure proper administration of the program. 5. Use special-uses administration, planning, budgeting, resource coordination, and reporting. Maintain, update, and verify the data base. 6. Evaluate special-uses applications and complete environmental documentation prior to issuing authorizations.

Table H: District Ranger		
Recreation	*Development*	*Special Uses*
N/A	Liaison between the project for Forest supervisor; ensure consistency with priorities, standards, and application of directives	Responsible for all special use activities on the District, expect those reserved for the Forest Supervisor. 1. Assure high quality administration of the program. 2. Provide training in special-use administration. 3. Maintain communication with local individuals and organizations with interest in the program. 4. Monitor and evaluate special-use activities to determine effects on other resources and ensure compliance. 5. Evaluate special-uses applications and complete environmental documentation prior to issuing authorizations.

Appendix G: Additional Case Data

The following additional case data was collected from forest NVUM reports and Forest Accomplishment reports. The percent displayed in the graphs are rounded to the nearest whole number and are sorted by the pre-determined categories used in the NVUM survey.

Forest A

The most common activity participated in on Forest A is viewing natural features, followed by hiking and walking. Similarly, the NVUM asks visitors to specify what their main activity is on the forest, of which almost half of visitors cited viewing natural features or hiking and walking as their main activity. About half of recreation fee revenue expenses on Forest A were to visitor services, followed by repair and maintenance.

Forest B

The most common activity participated in on Forest B is downhill skiing, with more than half of visitors engaging in this activity during their visit. This was followed by hiking and walking and viewing natural features. About half of visitors also cited downhill skiing as their main forest activity, followed by hiking and walking. Over 80% of visitors to Forest B identify as White. About half of recreation fee revenue expenses on Forest B were to visitor services, followed by repair and maintenance.

Forest C

The most common activity participated in on Forest C is downhill skiing, followed by viewing natural features and hiking and walking. Following the same pattern as Forest B, half of Forest C visitors cited downhill skiing as their main forest activity, followed by hiking and

walking. Over 80% of visitors to Forest C identify as White. A large portion of recreation fee revenue expenses on Forest C was on visitor services, followed by repair and maintenance.

Forest D

The most common activity participated in on Forest D is viewing natural features, followed by relaxing and hiking and walking. The most common primary activity on Forest D is viewing natural features, followed by hunting. Over 80% of visitors to Forest D identify as White. A large portion of recreation fee revenue expenses on Forest D was on visitor services, followed by repair and maintenance.

Appendix H: Interview Questions

Opening Questions

What is your current position in the Forest Service? How long have you been in this role?

How does this position intersect with the recreation fee program?

Interview Questions

What do you consider to be the main goals of charging recreation fees on this forest?

- How do these goals change at different sites or districts?

What are the benefits you think this forest receives from charging fees?

→ **Research Question 1**: What policy objectives are prioritized by recreation fee program staff?

Interview Questions

How does this forest determine which sites should charge fees?

Can you describe how you think the forest considers potential impacts on visitors when adding or changing a fee?

What is your understanding of the decision-making process to add a new service to type of infrastructure to a recreation site?

- Tell me about how you think that decision-making processes might be different at developed fee sites compared to developed non-fee sites?

In your experience, how are projects using fee revenue selected?

→ **Research Question 2:** What information does recreation fee program staff use to make decisions?

Interview Questions

Can you tell me about any negative impacts, intended or unintended, the fee program might have at your forest?

Tell me about how forest staff engages with the public to inform decisions about recreation fees

As someone who works closely with the fee program, what are your thoughts on forests, in general, relying on fees to operate recreation sites?

Research Question 3: How does recreation fee program staff identify potential negative impacts of recreation fees?

Interview Questions

What are the benefits you think visitors receive from fees?

- What difference in benefits, if any, exists for visitors to non-fee sites compared to fee sites?
- What is your understanding of how benefits impact a visitor's experience to the forest?

From your perspective, tell me about any negative impacts that the fee program might have on visitors' experience at this forest.

How do you think the level or type of site development influences a visitor's experience at this Forest?

Tell me about your thoughts on how visitors to your forest feel about paying fees

Research Question 4: How does the presence of recreation fees impact visitor experiences?

Interview Questions

Do you have a sense of how the benefits reach visitors?

How might the public be potentially displaced by recreation fees?

Tell me about your perceptions on the diversity of visitors to this forest

Research Question 5: How does the presence of recreation fees impact visitor access?

Appendix I: Interview Coding Framework

Research Question 1: How do USFS staff identify policy objectives?

Code Name - **Code Subcategories**	**Coding Definition / Criteria**
Services	Providing and/or maintaining services, facilities, and amenities at recreation sites
- Services overlap	The use of one objective (e.g., staff or maintenance) to achieve another objective (e.g., service provision)
- Required services or beneficial services	Motivator of providing services, facilities, and amenities due to a requirement in the policy **or** the benefits they give visitors
- Types of services	Specific services and infrastructure named by staff as being provided through the collecting of recreation fees (e.g., garbage, bathrooms, fire ring)
- Visitor expectations	Identification of visitor expectations of services at recreation sites
- Resource protection	Need for services/amenities/infrastructure to protection natural resources
Staff	The ability to hire staff and the benefits staff provide at recreation sites
- Service to the public	Use of staff presence and/or labor to provide and/or maintain services to the public
- Service to natural resources	Use of staff presence and/or labor to maintain and/or care for natural resources
Maintenance	Maintenance (deferred or general) to facilities, infrastructure, vehicles, roads, and recreation sites
- General and deferred site maintenance	Completing general or deferred maintenance on site facilities, amenities, and infrastructures
- Trail and natural environment	Maintenance and work on trails and natural features
- Changes across sites	The motivations, goals, amount and types of maintenance changing at different sites or ranger districts across a forest
Enhancement	Financial sustainability and long-term goals of the recreation fee program
- Long-term sustainability of rec fee program	Strategies for funding that increase sustainability of the program in the long-term Improvements of the visitor experience on a long-term temporal scale
- Supporting low-revenue sites	Strategies for funding that involve spreading recreation fee revenue from high-earning sites to support low-earning sites
Resource Protection	Avoiding natural resource damage or protecting the natural resources at recreation sites and/or the forest
- Investment	Use of recreation fee revenue to directly invest in infrastructure and amenities that reduce damage to natural resources

- Changes across sites	The motivations, goals, amounts and types of resource protection mechanisms changing at different sites or ranger districts across a forest
- Strategies for resource protection	Strategies to utilize the recreation fee program as a tool for mitigation and/or adaptation to resource damage

Research Question 2: How does USFS staff make decisions about the recreation fee program?

Code Name - **Code Subcategories**	**Coding Definition / Criteria**
Policies and Procedures	Use of any policy, procedure, and/or directive that pertains to public land management
- RAC approval and challenges	Identification of a RAC in the recreation fee decision making process
- USFS Directives	Identification of USFS Directives, plans, and/or processes in the recreation fee decision making process
- Areas for improvement	Issues, confusion, non-use, or negative sentiment relating to policies, procedures, and/or directives
Visitor Usage Data	Information relating to amount of visitation, visitor demographics and activities, and/or visitor use of recreation sites
- High use impacts on natural resources	Resource damage associated with high levels of visitation informing and/or driving decision-making
- High use impacts on operations	USFS formal/informal operations and/or norms impacted by high levels of visitation informing and/or driving decision-making
- Type of visitor use	Activities that visitors engage in and/or desire to engage in (recreational or non-recreational) at a site that informs decision-making
Staff Knowledge	Seeking peer advice, relying on experience, use of intuition and/or reasoning that "makes sense", and informal information sources (e.g., observations) at recreation sites
- USFS staff hierarchy	Reference to asking and/or trusting the judgement of staff higher and/or lower to a participant when making decisions
- Informal communication with visitors	Receiving signals from visitors about their desires, experiences, and expectations of sites (e.g., observations of visitors, conversations with visitors, phone calls) that is not policy-mandated communication
- Staff discretion	Use of intuition/feelings, experience, and judgement in the decision-making process
Budget and Funding	Information on recreation fee revenue, appropriated funding, availability of grants, program costs, and/or other financial information
- Prioritizing sites with funding	Placing greater importance, value, and/or resources

	on sites with funding sources other than appropriated dollars
- Limitations on reliance on funding	Staff identified downsides/limitations to using funding and budget information as a source of information and forest reliance on rec fee revenue

Research question 3: What are the impacts USFS staff perceive from recreation fee program implementation?

Code Name - **Code Subcategories**	**Coding Definition / Criteria**
Operational and Internal Impacts	Identified impacts that pertain to the internal functioning, perceptions, staffing, and/or operations of the program/agency
- Impacts on program management	Recreation fee program components that influence management perceptions and actions (e.g., management philosophy/styles, accountability)
- Impacts on staff	Affects and/or influence on the recreation fee program relating to staff across all levels of the USFS
- Impacts on sites	Causes of operational and internal impacts that are related to level of visitation and site use by visitors
- Impacts on financial sustainability	Identification of funding influencing operations and decisions, and/or challenges and issues related to funding
Public Impacts	Identified program impacts that influence public perspective and behavior
- Public perception	The public's feelings, perceptions, communications, and/or understanding of USFS recreation is influenced/impacted by fees
- Public displacement	Fee program's influence on the public's ability to access and visit sites, and decision-making processes
- Public participation	Degree to which the public participates in recreation fee decisions and engages with staff

Research question 4: How does USFS staff perceive the impacts of recreation fees on visitor experiences?

Code Name - **Code Subcategories**	**Coding Definition / Criteria**
Role of Services	Staff perceptions that the presence of services, facilities, and/or infrastructure impact user experiences on the forest
- Quantity and quality of services	Number of services, infrastructure, and/or facilities and degree to which these are maintained and cleaned
- Visitor expectations of services	Visitor expectations for the number of services, infrastructure, and/or facilities and their level of maintenance/cleaning, and the ability to meet these expectations

Visitor Perceptions and Preferences	Staff perceptions that visitor perceptions, preferences, and characteristics that impact user experiences on the forest
- Negative perception and visitor confusion	Staff perception that the public views recreation fees, the USFS, and/or recreation sites negatively and do not fully understand and/or are confused by the rec fee program, impacting their forest experience
- Range of recreation opportunities	Staff perceptions that a range of seclusion, recreation activities, and prices to impact user experience
- Difference of tourists and locals	Staff perception that locals, compared to tourists, have different perceptions, preferences, characteristics, and/or expectations, impacting their forest experience

Research question 5: How does USFS staff perceive the impacts of recreation fee on visitor access?

Code Name - **Code Subcategories**	**Coding Definition / Criteria**
Diversity on the forest	Staff perceptions on visitors' diversity on the forest and sites and characteristics that influence visitor diversity
- Perceptions of low diversity	Identifying a lack of diversity (such as: racial, ethnic, age, gender, income, activity, experience) in visitors on the forest Identifying visitors as primarily white and mid/high-income
- Sources of diversity	Characteristics of the USFS and/or recreation that limits the diversity on forests and/or discourages/displaces underrepresented groups from recreation
Potential for Visitor Displacement	Staff perceptions that visitors can be displaced and/or discouraged from recreation due to fees
- Cost of recreation	The cost of recreation, related expenses, or pursuit of cheaper options as a source of displacement or discouragement from recreation (e.g., cost of fees, gear, travel)
- Visitor perceptions and preferences	Public perspectives, preferences, philosophies, or understanding/lack of understanding of fees as a cause of discouragement and/or displacement
Barriers to Information	Staff perceptions on where the public receives fee information and the quality of information as an influence on site visitation
- Sources of information	Staff perception on where visitors receive their information on the recreation fee program and sites, and perspectives on these sources
- Quality of information	Staff perception on the effectiveness of USFS information in communicating recreation and participation opportunities, program processes, fee

	benefits, and other program information to users