



Regulatory Analysis of the Off-Road Motor Vehicles Proposed Rule for Big Cypress National Preserve

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Acronyms

ATV	-	all-terrain vehicle
BEA	-	Bureau of Economic Analysis
BLS	-	Bureau of Labor Statistics
CFR	-	Code of Federal Regulations
CUA	-	Commercial Use Authorization
E.O.	-	Executive Order
EIA	-	Energy Information Administration
EIS	-	Environmental Impact Statement
EPA	-	U.S. Environmental Protection Agency
GDP	-	gross domestic product
GMP	-	General Management Plan
GS	-	General Schedule
IEc	-	Industrial Economics, Incorporated
IRFA	-	Initial Regulatory Flexibility Analysis
IRMA	-	Integrated Resource Management Applications
NAICS	-	North American Industry Classification System
NPS	-	National Park Service
OMB	-	Office of Management and Budget
ORV	-	off-road vehicle
PL	-	Public Law
PV	-	present value
RA	-	regulatory analysis
RFA	-	Regulatory Flexibility Act of 1980
RUVD	-	Recreation Use Value Database
SBA	-	Small Business Administration
SBREFA	-	Small Business Regulatory Enforcement Fairness Act of 1996
SEIS	-	Supplemental Environmental Impact Statement

UTV	-	utility terrain vehicle
WG	-	Wage Grade
WTP	-	willingness to pay

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Several individuals at IEc contributed to this report. Megan Sheahan managed the effort, served as lead analyst, and drafted the report. She received substantial technical and analytical support from Claire Spector. Jennifer Baxter helped to frame the analysis, and she provided technical review of the report.

Executive Summary

This report estimates the incremental costs and benefits as well as the fiscal effects likely to result from a proposed rule under consideration by the National Park Service (NPS). The rule would amend special regulations for the Big Cypress National Preserve (hereafter “the preserve”) that regulate the use of motorized off-road vehicles (ORVs).¹ By updating a map of the preserve to reflect the preserve’s current boundaries, the rule would enable the Superintendent to reopen and expand ORV trails in a section referred to as the Addition. In the near term, the Superintendent intends to use this new authority to reopen 110 miles of primary ORV trails in the Addition as well as 13 miles that connect the original preserve with the Addition. The analysis presented in this report estimates the incremental effects of these likely outcomes of the proposed rule relative to a baseline scenario where current recreational access in the Addition remained limited to nonmotorized use.

This proposed action is considered an enabling regulation pursuant to Executive Order (E.O.) 14192 (Trump 2025), “Unleashing Prosperity Through Deregulation.” In its implementing guidance for E.O. 14192, OMB (2025) states that generally, “one-time” regulatory actions (i.e., those actions that are not periodic in nature) that expand consumption and/or production options would qualify as deregulatory actions under E.O. 14192. The proposed rule meets these criteria and therefore is a deregulatory action.

ES.1 Incremental Costs

The proposed rule would not require the preserve to establish new trails. Instead, the incremental costs of the rule primarily arise from the labor required to reopen existing ORV trails, including both archeological investigations to check for the presence of sensitive cultural sites as well as the need to clear the existing trails of overgrown vegetation. Anticipated increased demand for ORV permits will also result in additional time spent on ORV permit application completion and processing, however we lack the information necessary to make quantitative projections of the number of new permits likely to be issued, and therefore cannot quantify this cost. Finally, we consider, but do not quantify, potential adverse impacts to natural and cultural resources. Prior work by NPS suggests that such effects are likely to be minor. Importantly, the proposed rule is unlikely to result in significant additional administrative compliance processes before the trails are reopened because the preserve has already undergone an extensive environmental review process through the Environmental Impact Statement (EIS) that accompanies the Backcountry Access Plan (NPS 2024).² Table ES-1 summarizes these findings.

Table ES-1. Incremental Costs of the Proposed Rule (2025 dollars)

Cost Category	Total Present Value (20 Years) ¹		Annualized ¹	
	3 Percent	7 Percent	3 Percent	7 Percent
Archeology	\$87,000	\$160,000	\$5,700	\$14,000
Reopening and clearing ORV trails	\$520,000	\$510,000	\$34,000	\$45,000
Maintenance of ORV trails	\$320,000	\$220,000	\$21,000	\$19,000
Time spent on ORV permit applications	Unquantified ²	Unquantified ²	Unquantified ²	Unquantified ²

¹ The regulations define “motorized vehicles” broadly to include automobiles, trucks, glades or swamp buggies, airboats, amphibious or air cushion vehicles or any other device propelled by a motor and designed, modified for or capable of cross country travel on or immediately over land, water, marsh, swampland or other terrain, except boats which are driven by a propeller in the water. 36 CFR 7.86(a)(1)(i).

² Personal communication between IEc and NPS on March 12, 2026.

Cost Category	Total Present Value (20 Years) ¹		Annualized ¹	
	3 Percent	7 Percent	3 Percent	7 Percent
Adverse impacts to natural and cultural resources	Unquantified	Unquantified	Unquantified	Unquantified
Total Quantified	\$930,000	\$890,000	\$61,000	\$78,000

Source: IEC calculations using data sources and assumptions described in Chapter 3.

Notes:

1. Discounting assumes the first year of the rule is the base year. Estimates are rounded to two significant digits for presentation purposes and to convey uncertainty in the magnitude of the estimates. Tables in the main report offer unrounded numbers to facilitate reproduction of our estimates. Sums presented in the exhibit may not calculate due to rounding.
2. The number of permits that can be issued with access to the Addition is limited to 650. Therefore, the present value permit costs are unlikely to exceed \$160,000 to \$220,000 (assuming discount rates of 7 and 3 percent respectively), and annualized permit costs are unlikely to exceed \$14,000 (under either discount rate assumption).

ES.2 Incremental Benefits

The proposed rule represents an important component of a multi-pronged strategy to expand recreational access at the preserve, notably by creating new ORV opportunities in the Addition. Opening the Addition to ORV use will generate incremental benefits in two ways:

1. The *number* of new ORV trips may increase, either as new individuals obtain ORV permits or if the expanded trail network incentivizes existing permittees to increase the number of trips they make to the preserve; and
2. The *value* of a typical ORV trip to the preserve may increase for existing permittees as a result of the expansion of the trail network.

Estimating the benefits of new and enhanced ORV opportunities requires information about the number of affected ORV trips and their value. Data are available to estimate the likely number of trips to the preserve in the baseline (i.e., absent the opening of ORV access to the Addition); however, information about the likely increase in permit demand is not readily available. Similarly, the published academic literature offers insights into the value ORV users derive from trips; however, information about the potential incremental increase in the value of a trip if access to the Addition expands is not available. As a result, we are unable to quantify the benefits of the proposed rule.

Therefore, we conduct a series of break-even analyses to provide decision-makers with information about the magnitude of changes in key parameters needed to achieve benefits that are equal to costs. Decision-makers can then evaluate these “break-even quantities” in light of existing information about baseline visitation or the current value of trips and consider whether it is likely that the benefits of the proposed rule will exceed costs. Importantly, the results of the break-even analyses do not represent a forecast or estimate of the likely benefits of the proposed rule. Results are presented in Table ES-2.

In all three calculations, modest increases in new permits, trips among existing permit holders, or the value of an ORV trip would result in benefits that equal costs. Importantly, each of these changes is evaluated in isolation. For example, under Scenario 1, benefits will equal or exceed costs if at least 66 to 116 new permits are issued in Year 3 of our analysis and those permits are renewed annually. This calculation assumes that no additional trips are taken by existing permit holders, and the expansion of ORV trails in the Addition has no impact on the value of a trip. In reality, it is more likely that all three effects will occur simultaneously, in which case the combined threshold values will be lower.

Table ES-2. Break-Even Results

Scenario	3 Percent Discount Rate	7 Percent Discount Rate	Baseline Number or Value	Percent Change Required Relative to Baseline Value
Calculation 1: New ORV Trips Among New ORV Permit Holders				
Minimum number of new ORV permits that would need to be issued annually for benefits to equal or exceed costs	66 permits	116 permits	1,250 permits	5 to 9 percent increase
Calculation 2: New ORV Trips Among Existing ORV Permit Holders				
Minimum number of new ORV person-trips that would need to be taken annually by existing permittees for benefits to equal or exceed costs	995 person-trips per year	1,730 person-trips per year	31,165 person-trips per year	3 to 6 percent increase
Calculation 3: Enhanced Value of Existing ORV Trips				
Minimum incremental increase in the value of an ORV trip that would need to be experienced by existing permittees (2025 dollars) for benefits to equal or exceed costs	\$2.23 per person per day	\$3.88 per person per day	\$27.95 per person per day	8 to 14 percent increase

Source: IEc calculations using data sources and assumptions described in Chapter 4.

Notes: Percent changes reported in the final column are based on unrounded inputs in the model.

ES.3 Fiscal Effects

In addition to estimating the incremental costs and benefits of the proposed rule, OMB directs Federal agencies to identify transfer payments (OMB 2003). A transfer payment is a monetary payment from one group to another that does not affect the total resources available to society. Common examples of transfer payments include taxes or fees.

Currently, the preserve charges \$100 for a sticker to access the original preserve. Once ORV access to the Addition is reopened, the preserve will charge an additional \$100 for a sticker to access the Addition. In other words, permittees would be able to pay for a sticker to access either section of the preserve (\$100 each) or both sections (\$200 total). As described previously, there is uncertainty regarding how the proposed rule will generate demand for new ORV permits and how many existing ORV permit holders will also wish to purchase a sticker for ORV use in the Addition.

ES.4 Impacts on Small Entities

The proposed rule does not directly regulate entities. Instead, it creates new and improved ORV recreation opportunities at the preserve and therefore directly affects visitors to the preserve. In addition to ORV permits issued to individuals, NPS identifies 15 businesses with commercial use authorizations (CUAs) in the preserve, some of which operate ORV tours and are thus permittees. These businesses may use the expanded ORV trail network made possible by the proposed rule. Based on an assessment of their business profiles, all of these businesses with CUAs are presumed to be small entities. Impacts to small businesses are expected to be net beneficial and will take the form of increased spending on goods and services provided by these entities, net of the \$100 fee paid by these entities for a sticker to enter the Addition. Presumably operators will only purchase this additional sticker if the cost is less than the new profits generated by access to the Addition. Data limitations prevent a quantitative estimate of the net change in revenue or profits likely to be experienced by these entities. Due to the uncertainty of the magnitude of this positive effect, this analysis includes an Initial Regulatory Flexibility Analysis (IRFA).

ES.5 Additional Requirements for Regulatory Analysis

Table ES-3 provides the accounting statement for the proposed rule as requested in Circular A-4 (OMB 2003).

Table ES-3. Circular A-4 Accounting Statement for the Proposed Rule (2025 dollars)

Category	Annualized, 3 Percent	Annualized 7 Percent	Source
Benefits			
Monetized benefits	None	None	
Quantified, non-monetized benefits	None	None	
Qualitative (unquantified) benefits	Break-even analysis indicates that the proposed rule would need to generate demand for at least 66 to 116 new ORV permits annually (a 5 to 9 percent increase in current permits); at least 995 to 1,730 additional trips annually by existing ORV permit holders (a 3 to 6 percent increase in trips); <u>or</u> an increase in the per person per trip value of \$2.23 to \$3.88 (an 8 to 14 percent increase in baseline per person per trip value).		RA, Chapter 4
Costs			
Monetized costs	\$61,000	\$78,000	RA, Chapter 3
Quantified, non-monetized costs	None	None	
Qualitative (unquantified) costs	Minor costs to natural and cultural resources in the form of soil degradation, disruption of suitable habitats for some special status animal species, and adverse impacts to wetlands, solitude, and other cultural resources. Time spent on ORV permit applications, both among applicants and NPS staff, equivalent to approximately \$45 per new permit and \$24 per renewal permit. Because the total number of permits allowed at the preserve is capped at 2,000 permits, and only 650 permittees are allowed access to the Addition, the total cost in the first year new permits are issued cannot exceed \$29,000. The administrative cost of applying for and issuing new permits is incorporated into the break-even analysis described above.		RA, Chapter 3
Transfers			
Monetized budgetary transfers	\$100 fee per sticker to enter the Addition as a permitted ORV user, although demand for stickers is uncertain.		RA, Chapter 5
Other monetized transfers	None	None	
Distributional Effects			
Effects on State, local, and tribal governments	None	None	
Effects on small businesses	15 businesses operate within the preserve subject to a CUA, and many are ORV permit holders. All of these businesses are presumed to be small. Impacts to small businesses are expected to be net beneficial and will take the form of increased spending on goods and services by recreationists, minus the cost of an additional sticker for the Addition. Data limitations prevent a comprehensive assessment of the magnitude of these positive revenue/profit impacts. Therefore, we include an IRFA.		RA, Chapter 6
Effects on wages	None	None	
Effects on growth	None	None	

CHAPTER 1 | Introduction

The NPS proposes to amend special regulations for the preserve that regulate the use of ORVs. In this chapter, we outline the need for the proposed rule and provide a description of what the rule will entail. Next, we outline the analytic requirements that are the focus of this report as well as our approach to the regulatory analysis. Lastly, we describe the organization of the remainder of the report.

1.1 Need for the Rule

The preserve was authorized by Congress in 1974 (Public Law [PL] 93-440) and originally included 570,000 acres of land and water in southern Florida. In 1988, Congress passed the Big Cypress Preserve Addition Act (Addition Act, PL 100-301), which expanded the preserve by approximately 147,000 acres. Over the subsequent decade and a half, the NPS prepared a series of plans governing ORV access in the preserve, including the General Management Plan (GMP) (NPS 1991), the 2000 Recreational ORV Management Plan (NPS 2000), and the Addition Lands GMP (NPS 2010).

In 2011, primary ORV trails in the Addition were briefly opened following authorization by the NPS (2010). However, this opening was subsequently challenged through litigation, resulting in a settlement agreement that required the trails to close while the NPS completed additional environmental compliance and administrative processes. Currently, ORV use is permitted on certain designated trails within the original portion of the preserve only, using the regulatory framework in special regulation 36 CFR 7.86, and is subject to a permitting process administered by the NPS.

To date, motorized access has not been reauthorized in the Addition for two reasons: 1) the NPS has continued to work through the environmental compliance activities and 2) the preserve map referenced in 36 CFR 7.86 was never updated to reflect this newer portion of the preserve. As a result, recreation in the Addition remains limited to non-motorized activities such as hiking, dispersed camping, and wildlife viewing. While the NPS is currently working to harmonize ORV management across the entire preserve through implementation of its Backcountry Access Plan (NPS 2024), which will also fulfill the outstanding environmental compliance requirements, the Superintendent continues to lack the regulatory authority necessary to reopen ORV trails in the Addition. This gap stems directly from the limitations of 36 CFR 7.86, which references a map depicting the preserve's boundaries as they existed in 1975, well before the Addition was incorporated into the preserve.

1.2 Description of the Rule

The proposed rule would update the map referenced in 36 CFR 7.86 to reflect the preserve's current boundaries, which include the Addition. In doing so, the proposed rule would provide the Superintendent with the regulatory authority necessary to reopen the Addition to ORV trail use, thereby expanding recreational access while ensuring the protection of the preserve's natural and cultural resources through the framework established by the new Backcountry Access Plan. Furthermore, by bringing the Addition under the same regulatory umbrella as the rest of the preserve governed by 36 CFR 7.86, the proposed rule would establish a consistent and cohesive management scheme for ORV use across the preserve as a whole.

The proposed rule would enable reopening of approximately 110 miles of primary ORV trails in the Addition.³ While the scope of the proposed rule only relates to ORV use in the Addition, NPS would reopen an additional

³ Email communication between IEC and NPS on February 20, 2026. During subsequent personal communication with NPS, including on March 12, 2026, the Superintendent clarified that the exact trail mileage remains uncertain until the preserve has an opportunity to undertake an on-the-ground assessment of the existing trail network in the Addition.

13 miles of ORV trails in the original preserve to allow for connection between the preserve and the Addition, for a total of 123 restored trails. Because these trails were established following the approval of the Addition Lands GMP (NPS 2010), the proposed rule will not result in the clearing of new trails, but instead, reopening the previously established trail network.

1.3 Requirements for Regulatory Analysis

As part of the rulemaking process, NPS must consider the economic impacts, including costs and benefits, of the proposed rule in the context of the regulatory requirements described in the following two sections.

1.3.1 Executive Orders 12866, 13563, and 14192

E.O. 12866 (Clinton 1993), “Regulatory Planning and Review,” as affirmed and supplemented by E.O. 13563 (Obama 2011), requires Federal agencies to assess the costs and benefits of significant regulatory actions as a means to improve regulatory decision making. Significant regulatory actions include those that may

- “(1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, territorial, or tribal governments or communities;
- (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive order” (Clinton 1993, Section 3(f)).

Circular A-4 (OMB 2003) provides guidance to Federal agencies on the development of regulatory analysis as required by E.O. 12866. As outlined in the U.S. Office of Management and Budget (OMB) guidance, analyses of these actions should be designed to provide information for decision-makers on the potential benefits to society of alternative regulatory and non-regulatory approaches, compared to potential costs, recognizing that not all benefits and costs can be described in monetary or even in quantitative terms. The guidance also focuses on ensuring that decisions are based on the best available scientific, technical, and economic information. The specific topics addressed include determining whether Federal regulation is warranted, examining alternative regulatory and non-regulatory approaches, and assessing the benefits, costs, and other impacts of the alternatives.

E.O. 14192 (Trump 2025), “Unleashing Prosperity Through Deregulation,” requires Federal agencies to reduce the private expenditures required to comply with Federal regulations by (1) identifying 10 prior regulations for elimination for each new regulation promulgated; and (2) ensuring that the total incremental costs of new and repealed regulations are significantly less than zero. In its implementing guidance for E.O. 14192, OMB (2025) states,

“EO 12866 remains the primary governing EO regarding regulatory planning and review. Accordingly, among other requirements, except where prohibited by law, agencies must continue to assess and consider both the benefits and costs of regulatory actions, including deregulatory actions, when making regulatory decision, and issue regulations only upon a reasoned determination that benefits justify costs.”

Furthermore, it refers to regulatory actions that expand consumption or production options as “enabling regulations” and states that cost-savings estimated pursuant to E.O. 14192 should include the “opportunity costs

of the previously foregone activities.” In this RA, we define the consumer welfare gains experienced by ORV users who gain access to the newly opened trails as “benefits” consistent with E.O. 12866.

1.3.2 Regulatory Flexibility Act of 1980, as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (RFA/SBREFA)

The Regulatory Flexibility Act of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (RFA/SBREFA) requires agencies to evaluate the impacts of the reporting, record-keeping, and other compliance requirements imposed on small entities and to consider regulatory alternatives and other measures that can minimize these impacts while accomplishing the stated objectives of the applicable statutes. Importantly, the RFA/SBREFA applies to all proposed and final regulations subject to notice and comment under the Administrative Procedures Act, regardless of whether the rule is identified as “significant” by OMB (SBA 2017).

1.4 Analytical Approach

The analysis described in this report addresses the requirements for regulatory analysis outlined in Section 1.3. The basic steps we undertake in our analysis are derived from guidance provided in Circular A-4 and the RFA/SBREFA, and include the following:

- **Step 1: Define the proposed rule.** Once an agency has determined that regulatory action is appropriate, Circular A-4 directs the agency to consider regulatory approaches to accomplish its objectives (OMB 2003). At the outset of this effort, we worked with NPS staff to understand its proposed regulatory changes. Section 1.2 describes the proposed rule.
- **Step 2: Define and estimate baseline conditions.** This step involves documenting current conditions and estimating future conditions in the absence of the proposed regulatory changes. In Chapter 2, we provide a description of the preserve, present a history of past ORV rules, and summarize baseline recreational visitation. This includes information such as visitor counts and number of ORV trips absent the proposed rule.
- **Step 3: Predict responses to the new regulations.** This step involves assessing how key stakeholders, including NPS and ORV permit-holders, are likely to respond to the proposed regulatory changes.
- **Step 4: Estimate societal costs and benefits as well as fiscal effects.** Based on the changes identified in Step 3, we estimate the incremental (i.e., relative to the baseline) societal costs and benefits associated with the regulatory changes. Additionally, we document how spending patterns may change as a result of the rule, including additional fees paid to NPS for ORV stickers permitting access to the expanded trail network.
- **Step 5: Assess small entity impacts:** In the final step, we consider the impacts of the proposed rule on small businesses, small organizations, and small governmental jurisdictions.

1.5 Structure of the Report

The analysis in the chapters that follow addresses each of the components of Section 1.4 in more detail. In Chapter 2, we characterize the baseline that serves as a point of comparison to the proposed rule. We assess the incremental costs and benefits associated with the proposed rule in Chapters 3 and 4, respectively, and describe the fiscal impacts of the rule in Chapter 5. Finally, in Chapter 6 we consider impacts of the proposed rule on small entities.

Although this analysis attempts to mirror the terms and wording of the proposed rule, no attempt is made to precisely replicate the regulatory language and readers are cautioned that the actual finalized regulatory text, not the text of this analysis, is binding.

CHAPTER 2 | Baseline Conditions

This chapter defines and characterizes the likely future conditions at the preserve in the baseline (i.e., the “world without the proposed rule”). Section 2.1 provides a brief description of the preserve itself, while Section 2.2 summarizes existing regulations and administrative actions affecting ORV access at the preserve. Section 2.3 provides an overview of current recreational visitation, including total visitor count, number of ORV permits, and number of ORV trips. The baseline scenario described in this chapter represents the reference against which incremental effects of the proposed rule are assessed.

2.1 Description of Big Cypress National Preserve

The preserve was established in 1974 as one of the first national preserves in the nation, representing a unique management concept “where resource protection, public recreation, and specific uses stipulated in its enabling legislation are managed concurrently” (NPS 2022). Many activities that would not typically be allowed in a conventional national park are permitted at the preserve through this enabling legislation, such as hunting, oil and gas extraction, ORV use, private land ownership, cattle grazing, and traditional use by indigenous tribes.⁴

The preserve spans 727,235 acres of freshwater wetland ecosystem between Miami and Naples in southern Florida and is home to a diverse array of plant and animal life. The seven primary habitats within the preserve are cypress systems, freshwater and forested wetlands, non-forested wetlands (prairies and marshes), hardwood hammocks, pine flatwoods, shrublands, and estuaries. These diverse ecosystems are home to a number of threatened or endangered species and species of special concern (NPS 2022).

For management purposes, the preserve is divided into the following eight units: Turner River, Bear Island, Corn Dance, Deep Lake, Loop, Stairsteps (further divided into zones 1 through 4), Western Addition, and Northeast Addition (NPS 2022). As mentioned above, the preserve provides numerous recreational opportunities for visitors, including ORV trips, backcountry camping, and hiking.

2.2 Historical ORV Management at Big Cypress National Preserve

Since the 1930s, people have accessed areas that are now within the boundary of the original preserve using motorized ORVs, including swamp buggies and smaller all-terrain vehicles (ATVs). Historically, ORVs were allowed to go virtually anywhere in the original preserve, usually leaving visible tracks on the ground.

In response to E.O. 11644 and 11989, the NPS promulgated regulations in 1979 governing the use of ORVs in the original preserve. These regulations are codified at 36 CFR 7.86(a) and designate areas where ORVs may be used in the original preserve. They allow the Superintendent to close areas or restrict the use of ORVs in the original preserve and to establish operational and vehicular requirements for the use of ORVs in the original preserve.

In 2000, the NPS released a Final Recreational Off-Road Vehicle Management Plan Supplemental Environmental Impact Statement (SEIS) that evaluated the environmental impacts of ORV use in the original preserve, excluding the Addition (NPS 2000). On September 28, 2000, the NPS Southeast Regional Director signed a Record of Decision identifying the proposed action in the SEIS as the selected action for managing

⁴ National Park Service. “A National Preserve - One Land, Many Uses.” Available at: <https://www.nps.gov/bicy/learn/the-first-national-preserve.htm>. Accessed December 22, 2023.

ORV use in the original preserve. In particular, this plan eliminated the dispersed use of ORVs, reduced the system to about 400 miles of designated trails, and required ORV permits and vehicle standards.

In 2010, NPS approved the Addition Plan, which provides direction for resource preservation and visitor use in the Western Addition and Northeast Addition (NPS 2010). This plan outlines front country and backcountry recreational opportunities and establishes new facilities and services for enhanced recreation in the Addition lands. The Addition Plan also authorized ORV access and riding opportunities. As described in Chapter 1, ORV access in the Addition was opened temporarily in 2011 but challenged and ultimately restricted again.

To date, the NPS has managed ORVs according to the proposed action in the SEIS pursuant to the existing special regulations for the preserve at 36 CFR 7.86(a). These regulations require a permit for ORV use and authorize the Superintendent to temporarily or permanently close or restrict the use of any areas and routes otherwise designated for ORV use. The Superintendent has used this authority to designate trails in the original preserve for ORV use and establish an ORV inspection program and vehicle specifications that must be met to pass inspection.

Under current management practices, there are 278 primary ORV trails (including airboat trails) and no secondary trails, all confined to the original preserve. The primary ORV trails are shared with non-ORV users, including hikers. The units with currently designated ORV trails are Bear Island Unit, Corn Dance Unit, Stairsteps Unit, and Turner River Unit.⁵

To define how people reach and use remote backcountry areas of the preserve while protecting natural resources moving forward, including but not limited to via ORVs, NPS developed a Backcountry Access Plan, including a draft EIS published in 2022 (NPS 2022) and finalized in 2024 (NPS 2024). The document is intended to serve as a long-term blueprint for managing backcountry access and includes provisions for establishing a network of secondary ORV trails encompassing 53 miles, where secondary trails are defined as those that branch off from primary trails and lead to one or more backcountry destinations. The EIS also addresses legal requirements to evaluate how ORV and other recreational access impact preserve resources.

2.3 Potential Substitute ORV Destinations

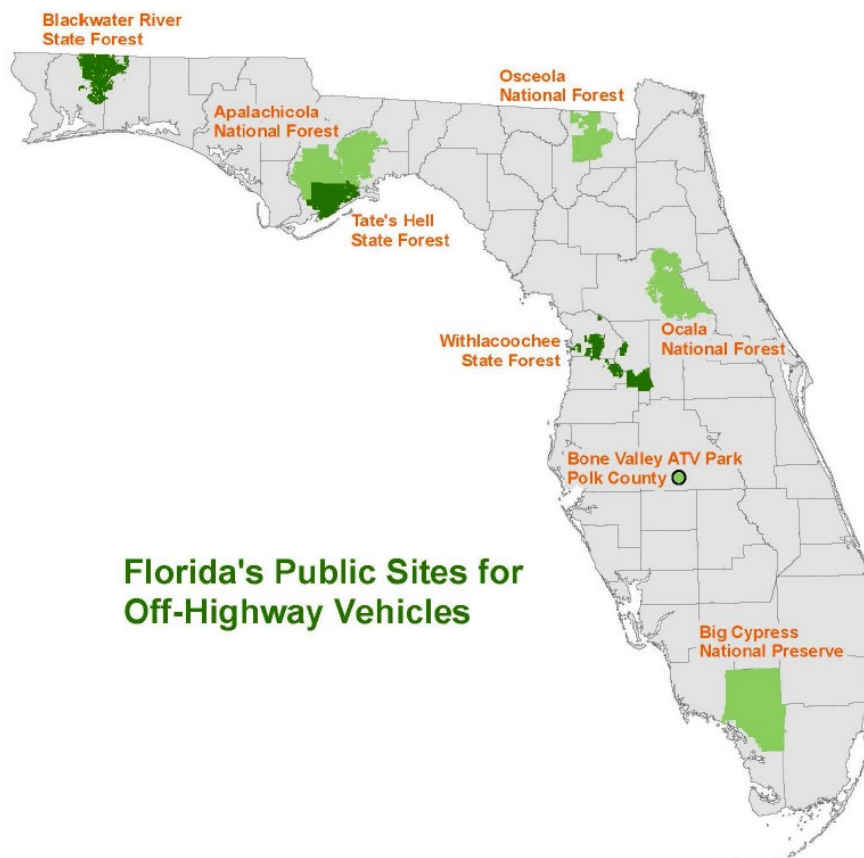
We identified several other public ORV recreation sites in Florida and found that the conditions at the preserve offer unique recreation opportunities not available elsewhere in the state, and especially not in southern Florida. Figure 2-1 provides a map available in *Florida's ORV Guidebook*, distributed by the Florida Department of Agriculture and Consumer Services (2020), and highlights that most other public ORV sites are at state or National Forests in the northern part of the state.⁶

In addition to public ORV access sites, we located private ORV recreation destinations in south Florida, including Lazy Spring Recreation Park (in Felda) and Redneck Mud Park (in Punta Gorda). However, these sites offer substantially different recreation amenities, are not focused on the natural environment, and provide significantly fewer miles of trails.

⁵ ORV trail maps for these units are available at NPS's website: <https://www.nps.gov/bicy/planyourvisit/designated-trail-implementation.htm>

⁶ No ORVs are permitted at Everglades National Park or Biscayne National Park, the two NPS sites closest to the preserve.

Figure 2-1. Public ORV Recreation Sites in Florida



Source: Florida Department of Agriculture and Consumer Services (2020).

2.4 Recreational Visitation at Big Cypress National Preserve

This section describes baseline visitation at the preserve, including total visitors as well as visitors that use ORVs within the current primary ORV trail network in the original preserve.

2.4.1 Total Visitors

The NPS maintains information on total visitors at NPS sites in the Integrated Resource Management Applications (IRMA) Portal. Federal land management agencies, including the NPS, capture data on recreation to inform decision-making and increase understanding of the various impacts of visitation. Each site establishes and routinely updates its methodology for counting and reporting visitor use statistics. Visitor data for the preserve from 2013 to 2020 show that park visitation hovers around 1 million annually, and the preserve Superintendent notes that visitation continues to grow slightly each year. NPS IRMA data do not provide sufficient detail to disaggregate visitors by the type of recreation they engage in at the preserve.

2.4.2 ORV Trips

Because data do not exist on the number of historical ORV trips at the preserve, we rely on several data sources to estimate the number of future ORV trips in the original preserve absent the rule. ORV use at the preserve requires a permit, and the current number of ORV permits is capped at 2,000. The preserve reports 1,253

permits issued in 2022 and 1,247 in 2023, for an average of 1,250 per year.⁷ Information on the number of trips associated with each ORV permit is not collected. Instead, the preserve Superintendent estimated the frequency of trips by type of permit holder, including commercial and private operators that use their ORV permits with high and low frequency.⁸ Information from NPS (2022) regarding the number of passengers per ORV trip among private operators supplemented the information from the Superintendent. This information and our calculations are summarized in Table 2-1.

Table 2-1. Derivation of Number of Baseline ORV Trips at Big Cypress National Preserve

ORV permit holder type	Estimated number of permit holders	Information used to estimate trip volume	Estimated person-trips per permit per year	Total number of annual ORV trips
High-frequency commercial operator	3	- Operate half of the year (26 weeks/year), 6 days/week, 4 trips/day - Capacity is 5 passengers/trip	3,120	9,360
Low-frequency commercial operator	5	- Operate half of the year (26 weeks/year), 2 days/week, 2 trips/day - Capacity is 5 passengers/trip	520	2,600
High-frequency private operator	5	- 1 trip per weekend year-round (52 trips/year) - 2.5 passengers/trip	130	650
Low-frequency private operator	1,237	- 1 trip per month half of the year (6 trips/year) - 2.5 passengers/trip	15	18,555
Total	1,250	N/A	24.9 (weighted average) 15.5 (private operators only)	31,165

Source: IEc calculations using 1) information provided by the Superintendent via personal communication on May 8, 2024 and 2) NPS (2022).

As shown, there are currently approximately 8 commercial operators with ORV permits, 3 of which individually operate more trips than the remaining 5 commercial entities combined. Using information from the Superintendent, we calculate that the higher-frequency commercial operators are responsible for approximately 3,120 passenger trips per permit per year while the lower-frequency commercial operators generate approximately 520 passenger trips per permit annually. Combined, these commercial operators are responsible for an estimated 11,960 total ORV person-trips each year.

Private operators account for a much larger share of the total number of ORV permits however, they use their permits less often. The Superintendent estimates that 5 private ORV operators use the permit once per weekend

⁷ Permit counts provided via email between IEc and Big Cypress National Preserve on June 27, 2023 and April 4, 2024.

⁸ Information provided via personal communication on May 8, 2024.

throughout the year, while the remaining 1,237 private operators use the permit about once per month, six months per year. NPS (2022) reports that the average number of people traveling in a single ORV is 2.5 people (page 12 of appendices). Like the analysis presented in the EIS, we assume each privately held ORV permit supports a group of the same size. Using this information, we estimate that the higher-frequency private operators are responsible for approximately 130 passenger trips per permit per year while the lower-frequency commercial operators generate approximately 15 passenger trips per permit annually. Combined, private operators are responsible for an estimated 19,205 total ORV person-trips per year.

On average, we estimate that each ORV permit provides approximately 24.9 person trips per year.⁹ In total, we find 31,165 ORV person-trips per year, comprised of about 38 percent from commercial operators and 62 percent from private operators. Relative to the approximately 1 million visitors per year at the preserve, this information suggests that approximately 3 percent of total visitors engage in ORV recreation each year.¹⁰ For reference, survey evidence demonstrates that trips among ORV permit holders have an average length of 2.5 days (University of Idaho 2007a). The same survey also identifies characteristics of visitors that use ORVs while at the preserve: predominantly from Florida (96 percent); most identify as white (98 percent); and typically aged 31 to 55 years (54 percent) (University of Idaho 2007a).

Without the proposed rule, ORV access within the original preserve would expand through the establishment of a secondary ORV trail network in the original preserve, as outlined in NPS (2024). Consequently, the number of ORV trips has the potential to increase as this secondary trail network becomes operational. However, reliable projections for how the secondary trail network may affect overall visitation at the preserve, or the number of ORV trips specifically, are currently unavailable. In the absence of such projections, this report relies on historical ORV permit data and information provided by the superintendent as the most reliable indicator of future ORV trip volume under baseline conditions.

⁹ To assess the reasonableness of this estimate, we compared our calculation to information contained in the 2007 University of Idaho survey of ORV users at the preserve. One question asks about the frequency of ORV trips at the site. The survey provided categorical responses, which we converted to discrete number of trips using the following assumptions: 1) “daily” (365 trips/year); 2) “several per week” (104 trips/year, assuming 2 trips per week); 3) “several per month” (24 trips/year, assuming 2 trips per month); 4) “several per year” (2 trips/year); and 5) “one per year” (1 trip/year). Using those responses, we estimate that the average ORV user takes approximately 43 ORV trips at the preserve each year (University of Idaho 2007a, page 37, question 10b). The Superintendent of the preserve does not believe that 43 trips/year is a reasonable estimate based on his experience and expects the survey may have over-sampled higher-frequency users (personal communication on May 8, 2024).

¹⁰ For reference, a 2007 visitor survey implemented by the University of Idaho found that 7 percent of respondents rode on an ORV during their latest trip (University of Idaho 2007b, page 43, question 10a). The survey, however, may not be representative of a full year, and ORV use at the preserve is seasonal.

CHAPTER 3 | Incremental Costs

This chapter estimates the incremental costs associated with the proposed rule. As described previously, the proposed rule would not require the NPS to establish new ORV trails. Instead, the incremental costs of the rule primarily arise from the labor required to reopen ORV trails, including both archeology to check for the presence of sensitive cultural sites as well as the need to clear existing trails that have become overgrown with vegetation. Increased demand for ORV access will also result in additional time spent on processing and issuing ORV stickers among new and existing permittees. There may also be minor costs associated with harm to natural and cultural resources, which we are unable to quantify. Importantly, the proposed rule is unlikely to result in significant additional administrative compliance processes before the trails are reopened because the preserve has already undergone an extensive environmental review process through the EIS that accompanies the Backcountry Access Plan (NPS 2024).¹¹

Our understanding of applicable cost categories and estimates are derived from discussions with the NPS and are supplemented using information from the Draft and Final Backcountry Access Plan (NPS 2022, 2024). This analysis examines costs over a 10-year time horizon. The following sections describe the data and assumptions used in this analysis in further detail.

3.1 Archeology

The preserve is party to a programmatic agreement with the Florida State Historic Preservation Officer and the Seminole Tribe of Florida stipulating that trails must be reopened in a phased manner (see Appendix G of NPS 2024). As described previously, reopening trails in the Addition is one component of a broader set of efforts to restore and expand primary and secondary ORV trails in the preserve as part of the implementation of the Background Access Plan. Across all trails where reopening activities may be undertaken, the first phase of reopening prioritizes airboat trails and primary trails situated on former tram roads and elevated road surfaces. NPS describes that a significant portion of the primary ORV trails in the Addition were developed on tram roads and are therefore expected to be reopened in the first phase.

Prior to reopening, an archaeologist must investigate the land where the trails will be opened to ensure any cultural resources are adequately identified and protected. The process involves expenditures of time and effort for both archaeological digging and drafting a report detailing results and findings, which will be completed by one archaeologist with an hourly wage rate of \$80.30.¹²

The amount of archaeological digging required depends on the composition of the land and the probability that archaeological material will exist beneath it. Muddier, softer land is considered to be less resilient and has a higher probability of identifying a resource of interest, meaning more digging will be required. Caprock, on the other hand, is highly resilient and has a low probability of identifying a resource of interest, which means it will require less digging (or none at all). For high probability land, one dig – referred to as a shovel test – will be required every 50 feet. For low probability land, one shovel test will be required every mile (5,280 feet).¹³

¹¹ Personal communication between IEc and NPS on March 12, 2026.

¹² Information provided by NPS via call on July 19, 2023. NPS notes this staff member would be paid at the GS-11 level. We use the 2025 GS-11 Step 5 wage rate of \$40.15 (see the Office of Personnel Management's Salary Table 2025-RUS) and multiply by a factor of two to account for benefits and overhead (Baxter et al. 2017).

¹³ Information provided by NPS via call on July 19, 2023.

The Draft EIS for the Backcountry Access Plan (NPS 2022, p. 24) states that 93 percent of the primary trails described in that document (53 miles across both land-based and airboat) will be located in areas of highly resilient (low probability) substrate. The Draft EIS also notes that 100 percent of the airboat trails (38 miles) are considered to be located on areas with low probability of identifying a resource of interest. Using this information, we estimate that approximately 75 percent of the land-based primary ORV trails are located in areas of highly resilient (low probability) substrate. Inversely, 25 percent of these land-based primary ORV trails are located in areas of less resilient (high probability) substrate. We apply these percentages to the 110 miles of primary trails to be reopened in the Addition as well as 13 miles of ORV trails in the original preserve that connects with the Addition, for a total of 123 restored trails.

Of the land where ORV trails will be reopened in and connecting to the Addition, 30.4 miles (160,628 feet) are considered high probability and 92.6 miles (488,812 feet) are considered low probability. This produces a total of 3,305 shovel tests, each of which takes approximately one hour. Regarding the report, NPS expects the archaeologist will spend 30 minutes writing for every hour of digging.¹⁴

However, this archaeological process is not entirely attributable to the proposed rule. NPS notes that the archaeology would need to be conducted at some point in the future regardless of the proposed rule. The proposed rule expedites the need for this work and requires that it will occur over a shorter timeframe. Without the rule, the archaeology could take 20 years; with the proposed rule, it will occur in two.¹⁵ Therefore, the incremental costs arise from completing the work sooner than would occur without the proposed rule, and the opportunity cost of expending resources earlier.

Table 3-1 presents the undiscounted and present value costs of archaeology over time with and without the proposed rule. The incremental cost is the difference between the present value of the future stream of costs with the rule and without the rule. Because the work would take place over a 20-year period in the absence of the rule, we calculated the incremental change in present value and annualized costs using a 20-year time period. The incremental cost of implementing archaeology sooner as a result of the proposed rule ranges from \$87,000 to \$160,000, depending on the discount rate assumption (3 and 7 percent, respectively).

¹⁴ *Ibid.*

¹⁵ *Ibid.*

Table 3-1. Cost of Archaeology With and Without the Proposed Rule (2025 dollars)

Year	Cost of Archaeology With Proposed Rule			Cost of Archaeology Without Proposed Rule			Incremental Difference in Cost of Archaeology Due to the Proposed Rule		
	Undiscounted	PV (3%)	PV (7%)	Undiscounted	PV (3%)	PV (7%)	Undiscounted	PV (3%)	PV (7%)
1	\$199,052	\$199,052	\$199,052	\$19,905	\$19,905	\$19,905	\$179,147	\$179,147	\$179,147
2	\$199,052	\$193,254	\$186,030	\$19,905	\$19,325	\$18,603	\$179,147	\$173,929	\$167,427
3	\$0	\$0	\$0	\$19,905	\$18,763	\$17,386	-\$19,905	-\$18,763	-\$17,386
4	\$0	\$0	\$0	\$19,905	\$18,216	\$16,249	-\$19,905	-\$18,216	-\$16,249
5	\$0	\$0	\$0	\$19,905	\$17,686	\$15,186	-\$19,905	-\$17,686	-\$15,186
6	\$0	\$0	\$0	\$19,905	\$17,170	\$14,192	-\$19,905	-\$17,170	-\$14,192
7	\$0	\$0	\$0	\$19,905	\$16,670	\$13,264	-\$19,905	-\$16,670	-\$13,264
8	\$0	\$0	\$0	\$19,905	\$16,185	\$12,396	-\$19,905	-\$16,185	-\$12,396
9	\$0	\$0	\$0	\$19,905	\$15,713	\$11,585	-\$19,905	-\$15,713	-\$11,585
10	\$0	\$0	\$0	\$19,905	\$15,256	\$10,827	-\$19,905	-\$15,256	-\$10,827
11	\$0	\$0	\$0	\$19,905	\$14,811	\$10,119	-\$19,905	-\$14,811	-\$10,119
12	\$0	\$0	\$0	\$19,905	\$14,380	\$9,457	-\$19,905	-\$14,380	-\$9,457
13	\$0	\$0	\$0	\$19,905	\$13,961	\$8,838	-\$19,905	-\$13,961	-\$8,838
14	\$0	\$0	\$0	\$19,905	\$13,554	\$8,260	-\$19,905	-\$13,554	-\$8,260
15	\$0	\$0	\$0	\$19,905	\$13,160	\$7,720	-\$19,905	-\$13,160	-\$7,720
16	\$0	\$0	\$0	\$19,905	\$12,776	\$7,215	-\$19,905	-\$12,776	-\$7,215
17	\$0	\$0	\$0	\$19,905	\$12,404	\$6,743	-\$19,905	-\$12,404	-\$6,743
18	\$0	\$0	\$0	\$19,905	\$12,043	\$6,301	-\$19,905	-\$12,043	-\$6,301
19	\$0	\$0	\$0	\$19,905	\$11,692	\$5,889	-\$19,905	-\$11,692	-\$5,889
20	\$0	\$0	\$0	\$19,905	\$11,352	\$5,504	-\$19,905	-\$11,352	-\$5,504
Total	\$398,104	\$392,307	\$385,082	\$398,104	\$305,023	\$225,637	\$0	\$87,283	\$159,445
Annualized	\$19,905	\$25,601	\$33,971	\$19,905	\$19,905	\$19,905	\$0	\$5,696	\$14,066

Notes and sources:

- See main text for description of data sources and assumptions.
- Numbers in the table reflect calculations based on unrounded inputs. We present results to the nearest dollar to facilitate the replication of our calculations. For reporting purposes, and to reflect the uncertainty inherent in these estimates, we recommend rounding the final results of this analysis to two significant figures.

3.2 Reopening and Clearing ORV Trails

Some portion of primary ORV trails in the Addition will require clearing before reopening. The proposed rule is expected to reopen 123 miles (216,480 yards) of primary trails within the Addition as well as linking the original preserve with the Addition, and NPS expects that one-third of the total trail length will require clearing given the composition of the existing plant material.¹⁶ For example, sections of trail passing through coco plum – a dense, fast-growing plant – will require more work while sections of trail passing through prairie will not need any. As follows, only 72,160 yards of primary trails will require clearing. NPS estimates the clearing process will take 1.5 hours for every 100 yards of trail.¹⁷ Therefore, clearing primary trails will take approximately 1,082 hours.

3.2.1 Labor

Primary trails will be cleared by the mix of five NPS staff members, consisting of two employees at the GS-9 level, one employee at the GS-11 level, one employee at the GS-13 level, and one employee at the GS-15 level.¹⁸ Table 3-2 shows the hourly wage rates for each of these GS levels and presents the total hourly labor cost for this group of NPS staff.¹⁹ The total cost of this group of NPS employees is approximately \$487 per hour (2025 dollars). Combined, the total labor cost for clearing is approximately \$530,000 in undiscounted 2025 dollars. The preserve expects the clearing to occur in the first and second years after the rule takes effect, therefore we assume costs are evenly distributed across these years.²⁰

¹⁶ Information provided by NPS via call on July 19, 2023 and via email on April 12, 2024.

¹⁷ Information provided by NPS via call on July 19, 2023.

¹⁸ Information provided by NPS via calls on July 19, 2023 and March 12, 2026.

¹⁹ We use the Step 5 wage rates for each GS level and multiply by a factor of two to account for benefits and overhead (see Baxter et al. 2017 for a discussion of the methodological approach for valuing administrative time in regulatory analyses).

²⁰ Information provided by NPS via call on July 19, 2023.

Table 3-2. Hourly Labor Cost for Group of NPS Employees Engaged in Trail Clearing (2025 dollars)

GS Level	Number of Employees (a)	Hourly Wage Rate Per Employee ^{1,2} (b)	Opportunity Cost of an Hour of Time ³ (c)	Total Cost per Hour (=a*c)
GS-9	2	\$33.19	\$66.38	\$132.76
GS-11	1	\$40.15	\$80.30	\$80.30
GS-13	1	\$57.23	\$114.46	\$114.46
GS-15	1	\$79.55	\$159.10	\$159.10
TOTAL				\$486.62

Notes and sources:

1. We use the Step 5 wage rates for each GS level and multiply by a factor of two to account for overhead (Baxter et al. 2017).
2. Cost estimates derived using information provided by NPS via call July 19, 2023 and March 12, 2026 as well as the GS pay table for the rest of the U.S. https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2025/RUS_h.pdf. GS data downloaded March 4, 2026.
3. We multiply the wage rate by "2" to estimate the opportunity cost of work time (see Baxter et al. 2017 for a discussion of the methodological approach for valuing administrative time in regulatory analyses).
4. Numbers in the table reflect calculations based on unrounded inputs. We present results to the nearest cent to facilitate the replication of our calculations. For reporting purposes, and to reflect the uncertainty inherent in these estimates, we recommend rounding final results of this analysis to two significant figures.

3.2.2 Equipment

NPS plans to use utility terrain vehicles (UTVs) and swamp buggies to navigate the preserve while clearing and reopening primary trails and anticipates that each trail will require one UTV or buggy trip.²¹ The preserve maintains an inventory of all trails, which identifies 25 primary ORV trails in the Addition that are currently closed.²² The cost of gas per trip is estimated to be \$5.95 based on a price of \$2.98 per gallon from the Energy Information Administration (EIA) and an estimate of two gallons per trip provided by NPS.²³ Combined, this results in an estimated \$149 in gas for these work trips.

Additionally, NPS notes recurring costs for breakdown repairs and preventative maintenance for the UTVs and swamp buggies over the course of the 25 work trips. Breakdown repairs and preventative maintenance will likely occur every fifth trip, for a total of approximately 5 occurrences. In 2023, NPS reported the costs per breakdown to be \$400 for swamp buggies and \$100 for UTVs (average of \$250 per occurrence) while the cost of preventative maintenance is on the order of \$250 for swamp buggies and \$50 for UTVs (average of \$150 per occurrence).²⁴ We assume the cost of labor required to perform repairs and maintenance is included in these cost

²¹ Information provided by NPS via call on March 12, 2026. UTVs are preferred for trail work in the dry seasons because they have lower overall maintenance costs. However, this analysis assumes swamp buggies may also be utilized for this work.

²² Trail inventory provided by NPS via email on March 12, 2026.

²³ Energy Information Administration. (2023). "Gasoline and Diesel Fuel Update." Available at: <https://www.eia.gov/petroleum/gasdiesel/>. Full history data downloaded on March 13, 2026. \$2.98 represents the average retail cost of a gallon of gasoline in Miami, Florida across all weeks in 2025. Estimate of \$5.95 relies on unrounded average dollar per gallon estimate.

²⁴ Information provided by NPS via call on July 19, 2023 and confirmed on March 12, 2026.

estimates. The total incremental cost of breakdown repairs is approximately \$1,300 while the cost of preventative maintenance is approximately \$790 (2025 dollars).²⁵

3.2.3 Summary

Table 3-3 presents the total incremental cost of the trail reopening and clearing process, accounting for labor, gas, breakdown repairs, and preventative maintenance for the vehicles that accompany NPS staff. In total, this analysis estimates a total incremental cost of approximately \$530,000 in undiscounted 2025 dollars to reopen and clear primary ORV trails in the Addition. We assume this cost is spread evenly across the first and second years after the proposed rule takes effect.

Table 3-3. Incremental Costs Associated with Reopening and Clearing ORV Trails (2025 dollars)

Cost of Labor	Cost of Gas	Cost of Breakdown Repairs for Vehicles	Cost of Preventative Maintenance for Vehicles	Total Cost
\$526,717	\$149	\$1,317	\$790	\$528,974

Notes and sources:

- See main text for data sources and assumptions.
- Costs will be spread evenly across Years 1 and 2.
- Numbers in the table reflect calculations based on unrounded inputs.

3.3 Recurring Maintenance of ORV Trails

In addition to the initial costs of reopening the trails, NPS will also incur future recurring costs associated with ORV trail maintenance. Maintenance needs are most necessary for trails where stabilization efforts were not undertaken when the trails were originally constructed. The preserve has not yet completed an assessment of which trails in the Addition may require intermittent stabilization. However, most primary ORV trails previously established in the Addition were atop former tram roads with cap rock surfaces; the original intention behind developing the former tram roads as ORV trails was to limit the need for future maintenance. Therefore NPS anticipates that only about one mile of the trail network in the Addition (less than 1 percent) will require ongoing maintenance.²⁶

3.3.1 Labor

NPS expects 72 hours of work will be required for every 400 feet of trail, which produces a total time of approximately 950 hours for the mile of trail requiring maintenance. This maintenance will be performed by one

²⁵ Throughout this analysis, we convert unit cost estimates to their 2025 dollar equivalents using Bureau of Economic Analysis (BEA) "National Income and Product Accounts," available at: <https://apps.bea.gov/iTable/?ReqID=19&step=4&isuri=1&1921=flatfiles> (See Section 1 "Domestic Product and Income", Table 1.1.9 "Implicit Price Deflators for Gross Domestic Product", Line 1 "Gross Domestic Product"). Accessed March 4, 2026.

²⁶ Information provided by NPS via call on March 12, 2026.

NPS staff member with time valued at \$65.22 per hour.²⁷ This results in a total labor cost of approximately \$62,000 (2025 dollars) in the years that the maintenance occurs.

3.3.2 Equipment and Materials

Recurring maintenance of the trails requires gravel. NPS describes that each 400-foot trail segment requires enough gravel to fill eight dump trucks, where each dump truck holds approximately 18 tons of gravel. In 2023, a ton of gravel cost \$35.²⁸ The total cost of gravel on the mile of trail is approximately \$70,000 (2025 dollars).²⁹

Transporting gravel and workers throughout the preserve during maintenance activities will also require gasoline. NPS describes that each hour of trail maintenance consumes 5 gallons of gasoline. Therefore, the 950 hours of maintenance will require over 7,500 gallons of gasoline. Using the same assumptions about the cost of fuel per gallon described in Section 3.2 (see footnote 23), the total cost of gasoline will be approximately \$14,000 (2025 dollars) during the years in which maintenance occurs.

3.3.3 Summary

Table 3-4 summarizes the recurring incremental costs of maintenance for primary ORV trails in the Addition. Each year of ORV maintenance is estimated to cost approximately \$150,000 in undiscounted 2025 dollars, and these trips will take place every 5 years after trails begin to be reopened (in Year 2) for a total of 3 years of maintenance work over the 20-year time period of the analysis (in Years 7, 12, and 17).

Table 3-4. Recurring Cost of Maintenance for Primary ORV Trails (2025 dollars)

Cost of Labor	Cost of Gravel	Cost of Gas	Total Cost in Years with Maintenance
\$61,985	\$70,107	\$14,147	\$146,239

Notes and sources:

- See main text for data sources and assumptions.
- Costs will be incurred every five years after trails begin to be reopened (in Year 2), starting in Year 7.
- Numbers in the table reflect calculations based on unrounded inputs.

3.4 ORV Permits

Entities wishing to operate an ORV within the preserve must obtain an ORV permit.³⁰ Permittees would be able to request a sticker for either or both the Addition or the original preserve with their application. The reopening of trails in the Addition is anticipated to result in increased demand for these permits. For reference, in 2022 and 2023, an average of 1,250 ORV permits were administered annually, compared with the maximum allowed

²⁷ NPS notes this staff member would be paid at the WG-10 level. We use the WG-10 Step 3 wage rate of \$32.61 and multiply by a factor of two to account for benefits and overhead (Baxter et al. 2017). The WG schedule is sourced from <https://wageandsalary.depas.osd.mil/BWN/AFWageSchedules/> and generated using the following criteria: State of schedule - Florida; Type of schedule - Regular Area; County - Collier County; Year - December 1, 2025. WG data downloaded March 4, 2026.

²⁸ Information provided by NPS via call on July 19, 2023.

²⁹ See footnote 254 for a discussion of the GDP deflator source.

³⁰ Information about the permit application process and requirements is available at: <https://www.nps.gov/bicy/planyourvisit/off-road-vehicle-permits.htm>

limited of 2,000 permits per year, of which 650 allow access to the Addition.³¹ The preserve anticipates that the cumulative effect of all planned ORV trail reopening activities— including ORV trail reopening within the original preserve – could drive permit demand towards the maximum allowable limit within the first few years following trail establishment.³² However, the extent to which demand specifically attributable to trails in the Addition contributes to this increase is uncertain. In this section, we describe the unit costs per permit application; in Chapter 4 (Incremental Benefits), we discuss the number of new permits that would need to be issued annually in order for the proposed rule to generate net benefits. That break-even analysis incorporates these per permit application costs.

3.4.1 Applicant Labor

Under current practices, ORV permit applicants spend time assembling their applications and completing the necessary requirements. NPS estimates that permit applicants spend approximately one hour on a new permit application and 15 minutes on a permit renewal application in subsequent years, which must be done on an annual basis.³³ This estimate excludes the time required to complete the mandatory ORV operator’s course and vehicle inspection, as these activities are assumed to be undertaken by ORV recreationalists regardless of whether they are seeking a permit specifically for the preserve.

To value the permit application time, we apply a post-tax wage rate of \$28.75 per hour (2025 dollars), under the assumption that time spent on the applications displaces leisure time as opposed to work time.³⁴ This hourly rate is calculated using the mean hourly wage rate in Florida across all occupations according to 2024 Bureau of Labor Statistics (BLS) data adjusted to 2025 dollars using the gross domestic product (GDP) deflator.³⁵ For the household tax rate, this analysis assumes a rate of 7.7 percent based on a U.S. Census Bureau report on nationwide income (Semega and Kollar 2022). Applying this methodology, the applicant time cost per new application is \$28.75 while the applicant cost per renewal application is \$7.19.

Separate from this rule, NPS is in the process of moving to a new online ORV permit application system. Once operational, applying for a new ORV permit will take considerably less time, potentially on the order of 15 minutes.³⁶ Therefore, the incremental cost of applying for a new permit in the future may be on the order of \$7.19. However, for the purposes of this analysis, we conservatively assume first-time applicants spend one hour applying for a permit. Thus, time costs incurred by applicants are more likely to be overstated than understated.

3.4.2 NPS Labor

According to NPS, processing and issuing one ORV permit under the current system takes approximately 15 minutes by a NPS staff member with a time cost of \$66.38 per hour.³⁷ Therefore, the staff time associated with each permit is approximately \$17 (2025 dollars). We assume this \$17 cost also applies to the time required for

³¹ Permit counts provided via email between IEC and Big Cypress National Preserve on June 27, 2023 and April 4, 2024.

³² Information provided by NPS via call on March 12, 2026.

³³ Information provided by NPS via email on April 2, 2024.

³⁴ This post-tax wage rate is calculated as: pre-tax wage rate * (1-household tax rate). For additional discussion of the value of leisure and nonwork time, see Baxter et al. (2017).

³⁵ BLS. (2024). “May 2024 State Occupational Employment and Wage Estimates, Florida.” Available at: <https://data.bls.gov/oes/#/area/12000000>. Data downloaded March 15, 2026. The hourly mean wage rate for all occupations was \$30.29. See footnote 25 of this report for a discussion of the GDP deflator source used to convert from 2024 to 2025 dollars.

³⁶ Information provided by NPS via email on April 22, 2026.

³⁷ Information provided by NPS via email on April 2, 2024.

staff to renew existing permits in subsequent years. With the new online ORV permit system, NPS staff may save time on the review and processing of applications. To be conservative, our analysis assumes staff spend 15 minutes per application; thus NPS administrative costs are more likely to be overstated than understated.

3.4.3 Summary

Table 3-5 summarizes the labor costs per new and renewal ORV permit application under the current submission and review system. Including both the applicant and NPS staff time, we calculate a time cost of approximately \$45 per new permit and \$24 per renewal permit (2025 dollars).

Table 3-5. Labor Cost Per ORV Permit Application (2025 dollars)

	Cost of Applicant Labor	Cost of NPS Labor	Total Cost Per Permit
New Permits	\$28.75	\$16.60	\$45.34
Renewal Permits	\$7.19	\$16.60	\$23.78

Notes and sources:

- See main text for data sources and assumptions.
- Numbers in the table reflect calculations based on unrounded inputs.

We note that because the total number of permits that can be issued at the preserve is capped at 2,000 permits, and only 650 permits enable access to the Addition, the incremental administrative cost in a single year of applying for and administering new permits is unlikely to exceed \$29,471 (2,000 permit cap – 1,250 permits currently issued annually = 750 permits, however only 650 permits would allow access to the Addition; 650 permits * \$45.34 per new permit = \$29,471). If all of those permits are renewed every year, then the costs in subsequent years would be \$15,457 (650 permits * \$23.78 = \$15,457). Assuming that all new permit applications are received in the third year and a discount rate of 3 percent, the total present value costs under this high-end scenario would be approximately \$220,000 with an annualized cost of \$14,000. As noted above, this annualized cost may decrease when the new ORV permit application system is launched.

3.5 Adverse Impacts to Natural and Cultural Resources

In addition to the quantified administrative and operational costs described above, the proposed rule may also result in some unquantifiable costs associated with adverse impacts to natural and cultural resources. The best available source of information about the potential for these effects is the EIS that accompanies the Backcountry Access Plan (NPS 2024).³⁸ The EIS includes consideration of the impacts of ORV trails in the Addition; it also addresses ORV trails in the original preserve as well other backcountry recreation types. The potentially affected resources described in that document relevant to ORV trails include soil, wetlands, habitat for species with special status, wilderness character, and cultural resources. The potential costs of impacts to these resources resulting from the proposed rule are expected to be minor as described below.³⁹

³⁸ The preserve superintendent confirmed via email on April 22, 2026 that NPS (2024) represents the best available data for an analysis of the adverse impacts to natural and cultural resources and that the summary of impacts in this section is applicable to the proposed rule.

³⁹ This analysis characterizes effects as “minor” if the extent of resources affected is very limited, the magnitude of the effect per resource is small, or both. Negligible effects denote categories where the analysis indicates that changes attributable to the rule are unlikely.

- **Soil disturbance:** The reopening of ORV trails will likely lead to some erosion, as well as soil degradation, displacement, and rutting. These impacts will be minor, only affecting about 0.004 percent of the preserve (NPS 2022, page 85).
- **Wetland disturbance:** Visitor use, and ORV use in particular, may also result in minor adverse impacts to wetlands. Combined, these effects would degrade 0.09 percent of wetlands in the preserve, leaving the vast majority of wetlands unaffected to continue providing natural ecological functions and services.
- **Habitat for species with special status:** For four special status species within the preserve – the Florida panther, the Eastern indigo snake, the red-cockaded woodpecker, and the eastern black rail – the reopening of ORV trails will cause small disturbances to their habitats. However, for all four species, the area of disturbance will amount to less than 1 percent of the total amount of suitable habitat in the preserve (NPS 2022, page 114). Most of the impacts on special status wildlife would occur for short durations (less than 5 minutes as an ORV or hiker passes by) but may reoccur throughout the day (NPS 2022, page 115).
- **Wilderness character:** Adverse impacts will be limited under the proposed rule and will stem from impacts to solitude or primitive and unconfined recreation due to the sights and sounds of ORVs in adjacent non-wilderness areas. Under the proposed rule, hikers and other non-motorized vehicle users will be subject to intermittent ORV and airboat noise on 43.5 percent of non-motorized trails, representing an 8.5 percent increase from the baseline (NPS 2022, page 133). In most cases, ORV noise will last no more than 3 minutes (NPS 2022, page 131).
- **Cultural resources:** Lastly, the potential for direct adverse impacts on cultural resources will be higher under the proposed rule than in the baseline due to the large increase in motorized and non-motorized trails. However, the archeology process described in Section 3.1 seeks to identify and minimize these risks.

Overall, these additional non-quantified costs are expected to be minor. Further detail on the impacts to natural and cultural resources within the preserve as a result of the reopening of ORV trails can be found in NPS (2024).

3.6 Summary

Table 3-6 presents the incremental costs of the proposed rule, including the costs associated with an earlier need to undertake archeology; the labor, materials, and equipment needed to reopen and clear ORV trails; the maintenance of a small subset of the ORV trail network; the time costs associated with ORV permit applications; and adverse impacts to natural and cultural resources. In present value terms, the total quantified costs are approximately \$930,000 to \$890,000 over the 20-year analysis timeframe, assuming 3 percent and 7 percent discount rates respectively. These quantified costs do not incorporate the potential costs associated with time spend on ORV permit application submission and processing as well as the social welfare costs associated with adverse impacts to natural and cultural resources in the Addition.

Table 3-6. Total Incremental Costs of the Proposed ORV Rule (2025 dollars)

Year	Archeology ^a	Reopening and Clearing ORV Trails	Maintenance of ORV Trails	ORV Permits	Adverse Impacts to Natural and Cultural Resources	Total Quantified Cost ^b
1	\$179,147	\$264,487	\$0	\$45 per new permit and \$24 per renewal permit. Total incremental cost uncertain. See Section 3.4. The total present value cost is unlikely to exceed \$220,000 and the annualized cost is unlikely to exceed \$14,000.	Qualitative. See Section 3.5.	\$443,634
2	\$179,147	\$264,487	\$0			\$443,634
3	-\$19,905	\$0	\$0			-\$19,905
4	-\$19,905	\$0	\$0			-\$19,905
5	-\$19,905	\$0	\$0			-\$19,905
6	-\$19,905	\$0	\$0			-\$19,905
7	-\$19,905	\$0	\$146,239			\$126,334
8	-\$19,905	\$0	\$0			-\$19,905
9	-\$19,905	\$0	\$0			-\$19,905
10	-\$19,905	\$0	\$0			-\$19,905
11	-\$19,905	\$0	\$0			-\$19,905
12	-\$19,905	\$0	\$146,239			\$126,334
13	-\$19,905	\$0	\$0			-\$19,905
14	-\$19,905	\$0	\$0			-\$19,905
15	-\$19,905	\$0	\$0			-\$19,905
16	-\$19,905	\$0	\$0			-\$19,905

Year	Archeology ^a	Reopening and Clearing ORV Trails	Maintenance of ORV Trails	ORV Permits	Adverse Impacts to Natural and Cultural Resources	Total Quantified Cost ^b
17	-\$19,905	\$0	\$146,239			\$126,334
18	-\$19,905	\$0	\$0			-\$19,905
19	-\$19,905	\$0	\$0			-\$19,905
20	-\$19,905	\$0	\$0			-\$19,905
Total Undiscounted	-	\$528,974	\$438,718			\$967,692
Present Value (3%)^b	\$87,283	\$521,270	\$319,251			\$927,805
Present Value (7%)^b	\$159,445	\$511,671	\$216,459			\$887,575
Annualized (3%)^b	\$5,696	\$34,017	\$20,834			\$60,547
Annualized (7%)^b	\$14,066	\$45,138	\$19,096			\$78,300

Notes:

- As discussed in Section 3.1, we estimate the difference in the present value costs associated with undertaking all of the archeological surveys over 2 years versus 20 years. The net difference in the present value of the two different schedules of future activity represents the incremental opportunity cost of compressing the schedule for otherwise identical activities and their costs.
- Discounting assumes the first year of the rule is the base year.
- Numbers in the table reflect calculations based on unrounded inputs. We present results to the nearest dollar to facilitate the replication of our calculations. For reporting purposes, and to reflect the uncertainty inherent in these estimates, we recommend rounding final results of this analysis to two significant figures.

3.7 Key Sources of Uncertainty

The results of this cost analysis are subject to several key assumptions which introduce uncertainty. Table 3-7 describes the assumptions associated with our estimates. This table includes a key assumption or source of uncertainty in each row, as well as a description of the potential magnitude of the effect on our overall estimates. For these assumptions and sources of uncertainty, this analysis finds that alternate assumptions are unlikely to change the key conclusions of this analysis. In particular, the proposed rule is unlikely to meet the threshold for an economically significant rule with respect to costs. However, alternate assumptions may influence the magnitude of our results.

Table 3-7. Sources of Uncertainty in Assessment of Incremental Costs

Key Assumption or Source of Uncertainty	Direction of Potential Bias	Likely Effect of the Uncertainty on Results
Archaeology would start immediately without the rule and would continue at a steady pace over the next 20 years.	Underestimate costs.	Potentially moderate effect on results. NPS noted archaeology may take 20 years without the rule but did not mention when this endeavor would begin. This analysis assumes archaeology would start immediately. However, this timeline is uncertain and subject to funding constraints. If archeological surveys would occur farther into the future in the baseline, then the present value of these costs is overstated, causing us to underestimate the opportunity cost of accelerating the schedule.
Costs associated with protecting sensitive sites revealed through archeology are not attributed to this rule.	Underestimate costs.	Potentially minor effect on results. This analysis attributes the time costs associated with archeology to the rule although does not project any costs needed to protect sensitive resources discovered during the process.
The number of new ORV permits likely to be requested is unknown, preventing the estimation of permitting costs.	Underestimate costs.	Potentially moderate effect on results. As shown in Table 3-6, a reasonable upper bound estimate of permitting costs suggests the total quantified costs of the proposed rule could be as much as 27 percent larger (\$253,412/\$927,805).
The unquantified costs associated with natural and cultural resources are minor.	Underestimate costs.	Potentially moderate effect on results. NPS (2022, 2024) describes the impacts to natural and cultural resources as minor, so it is likely the costs would also be minor, however this assumption is uncertain since these costs are not quantified.

CHAPTER 4 | Incremental Benefits

The proposed rule represents an important component of a multi-pronged strategy to expand recreational access at the preserve, notably by creating new ORV opportunities in the Addition. Opening the Addition to ORV use will generate incremental benefits in two ways:

1. The *number* of new ORV trips may increase, either as new individuals obtain ORV permits or if the expanded trail network incentivizes existing permittees to increase the number of trips they make to the preserve; and
2. The *value* of a typical ORV trip to the preserve may increase for existing permittees as a result of the expansion of the trail network.

Thus, estimating the benefits of the proposed rule requires information about the number of new or improved ORV trips and their value. Chapter 2 provides information about the likely number of trips to the preserve in the baseline (i.e., absent the opening of ORV access to the Addition); however, as discussed in Chapter 3, information about the likely increase in permit demand is not readily available. Similarly, the published academic literature offers insights into the value ORV users derive from trips; however, information about the potential incremental increase in the value of a trip if access to the Addition expands is not available. As a result, we are unable to quantify the benefits of the proposed rule.

When key benefits cannot be quantified or monetized, regulatory agencies commonly employ break-even analysis, consistent with recommendations outline in OMB Circular A-4 (2003). In this chapter, we conduct a series of break-even analyses to provide decision-makers with information about the magnitude of changes in key parameters needed to achieve benefits that are equal to costs. Decision-makers can then evaluate these “break-even quantities” in light of existing information about baseline visitation or the current value of trips and consider whether it is likely that the benefits of the proposed rule will exceed costs. Importantly, the results of the break-even analyses do not represent a forecast or estimate of the likely benefits of the proposed rule.

In Section 4.1, we begin by providing a conceptual overview of break-even analysis and the type of calculation included in this chapter. In Section 4.2, we provide a review of the available academic literature estimating the per trip value of an ORV excursion. In Section 4.3, we use the cost estimates from Chapter 3 and the per-trip value identified in Section 4.2 to conduct the break-even analyses. Section 4.4, we summarize our results, and in Section 4.5 we discuss key sources of uncertainty.

4.1 Conceptual Overview

A primary objective of regulatory analysis is to determine whether the costs of a proposed policy are justified by the beneficial outcomes it produces. This regulatory analysis is intended to provide decision makers with information on whether the benefits experienced by ORV users resulting from the expanded trail network are greater than the costs of reopening the ORV trails in the Addition and the connector trails in the original preserve. The rule would be justified, in economic terms, if benefits exceed costs (i.e. the rule generates positive net benefits). Given the absence of reliable measures of the potential increase in the quantity or quality of trips, we are unable to estimate these benefits and instead rely on break-even analysis to provide policymakers with insight into the likelihood of the rule producing positive net benefits.

Break-even analysis, sometimes referred to as threshold analysis, estimates the minimum magnitude of benefits needed to justify the costs of the regulation. Such analyses answer the question, “How small could the value of non-quantified benefits be (or how large would the value of non-quantified costs need to be) before the rule would yield zero net benefits?” (OMB 2003).

In a simplified example of a break-even calculation, assume:

n = the annualized number of new ORV trips resulting from the opening of the Addition

v = the value individuals place on ORV trips

The annualized benefits (B) of the rule are equal to the number of new ORV trips multiplied by the value of those trips:

$$B = n \times v$$

For the proposed rule to “break even,” the annualized cost of the rule (C) must equal the annualized benefits:

$$B = C$$

Therefore:

$$C = n \times v$$

If we have information about C and v , we can solve for n as follows:

$$n = C \div v$$

The result is the number of new trips, on an annualized basis, needed for the total value of those trips (i.e., the benefits) to justify the incremental costs of the rule (also reported on an annualized basis). We then compare the break-even quantity of new trips to the annual number of trips occurring in the baseline (31,165 trips) to evaluate the likelihood that this threshold can be achieved or exceeded when the rule is implemented.

A limitation of break-even analysis is that it generally involves solving for a single parameter, or type of change, at a time. In the case of this proposed rule, several changes may occur. The number of ORV permits issued in the preserve may increase, the number of trips taken to the preserve by existing permit holders may increase, and the value of existing trips may increase as a result of the improvement in trail network. In Section 4.3, we examine each of these potential outcomes separately. First, however, we require an estimate of the baseline value of an ORV trip, which is discussed below in Section 4.2.

4.2 Value Per ORV Trip

Individuals value recreational experiences based on multiple factors, for example, some related to the site (e.g., proximity, type of species present) and some related to the regulation of the activity (e.g., crowding, area closures). In welfare economics, the most common way to describe the benefit of a recreational trip is through consumer surplus. Consumer surplus represents the difference between what individuals would be willing to pay (hypothetical) and what they do pay (actual); the difference between the two is the utility gained from the activity. The economic literature focuses both on estimating total values for recreational experiences as well as attributes that affect that value. To estimate the welfare effects of changes in conditions of a recreation trip, analysts generally calculate changes in willingness to pay (WTP) for that trip.

The ideal set of WTP values for use in this analysis would rely on data from visitors at the Addition that undertake ORV activities. Because this activity is currently prohibited in the Addition, such information is unavailable. A second best option would be to use WTP among ORV recreation in the original preserve which is also unavailable. Absent this information, this analysis relies on a benefit transfer approach. Benefit transfer involves adapting existing research conducted to estimate economic values under one set of circumstances to address a new policy or regulatory question. In this manner, existing valuation research is combined with site-

specific data and information to develop a “transferred” estimate. To conduct the transfer, we draw on the stepwise approach offered by the U.S. Environmental Protection Agency (EPA) (2010).

4.2.1 Describe the Policy Case

The policy case refers to the conditions that will change at the preserve if the proposed rule is finalized. In this first step, we identify the characteristics of the affected change in recreation as well as the resulting consequences. As described in Chapter 1, the proposed rule would provide more desirable ORV recreational opportunities at the preserve by opening over 120 miles of primary ORV trails in and leading to the Addition. Permitted ORV types include ATVs, UTVs, swamp buggies, and street legal 4x4s.⁴⁰ ORV trips can occur on private vehicles or can be facilitated by tour companies. The increased access to the preserve is expected to increase demand for ORV permits and therefore generate new ORV trips among new permit holders.⁴¹

4.2.2 Identify and Review Relevant Existing Research

We use standard literature search methods to identify potentially relevant studies and then review those studies for their quality and fit, relying on guidance from OMB (2003). In identifying studies, we started with the estimates assembled in Oregon State University’s Recreation Use Value Database (RUVD).⁴² This publicly available resource contains hundreds of economic valuation studies that provide use values for recreation activities in the United States and Canada, including ORV recreation. Importantly, studies that appear in RUVD have already been vetted for their research quality. Then, because the database was last updated in 2016, we performed a literature search using Google Scholar to identify additional, recently published studies. This process yielded seven studies estimating WTP per ORV trip using survey data collected since 2000. Table 4-1 summarizes some key attributes of these studies, including the study sites, data source, methods, WTP per person per ORV trip estimates, and where in each study the estimates are found. To standardize the values, we present the WTP estimates on a “per person per day” basis.⁴³

As summarized in Table 4-1, the available literature focuses primarily on ORV access at National Forests, often in mountainous areas. In fact, three of the seven studies rely on the same survey data of ORV users at four sites in western North Carolina (i.e., Holmes et al. 2010, Englin et al. 2006, Holmes and Englin 2005). Other survey sites include Arizona (Silberman and Anderek 2006), Colorado (Deisenroth et al. 2009), and Utah (Jakus and Blahna 2005). While six of the seven studies provide estimates for consumer surplus derived from trips within a single state or nearby group of sites, one study offers an estimate across ORV users at National Forests across the United States, including sites in Florida (Bowker et al. 2009).

The range of per person per day values is wide and likely expresses differences in attributes across sites, preferences among the surveyed population, and differences in methodological approach (e.g., stated versus revealed preference). The highest values come from users of a single ORV access site in the mountains of North Carolina (\$607.79 - \$759.73 for Upper Tellico as reported in Holmes and Englin 2005). The lowest recorded value is the Southern regional average across ORV users at National Forest sites across that region of the United States (\$27.95 as reported in Bowker et al. 2009).

⁴⁰ Airboats also meet the definition of ORVs at the preserve, although there is no suitable water for airboat access in the Addition.

⁴¹ For purposes of simplification, we focus on the benefits of new ORV trips among new permit holders as opposed to improved trips among existing permit holders.

⁴² More about RUVD is available here: <https://recvaluation.forestry.oregonstate.edu/>

⁴³ This analysis uses the term “trip” to refer to a recreation excursion of any length. When assessing and selecting values from the literature, which characterize trips of different durations, we describe the values on a standardized “per person per day” basis.

While all estimates in Table 4-1 have been converted to per person per day equivalents, the underlying data used to estimate these numbers differ. For instance, the data used to estimate the values in Holmes et al. (2010), Englin et al. (2006), and Holmes and Englin (2005) relies only on responses from single-day users of the sites. Other studies include estimates from multi-day trips (e.g., Bowker et al. 2009, Silberman and Andereck 2006). The remaining two papers do not provide sufficient details on trip length (i.e., Deisenroth et al. (2009) only reports days on the trail per year while Jakus et al. (2010) provides no indication of trip length).

Table 4-1. WTP for ORV Trips Per Person Per Day from Existing Literature

Study	Study Site(s)	Study Data and Methods	Value Per Person Per Activity Day (2025\$)	Source of Estimates in Paper
Holmes et al. (2010) Preference heterogeneity in a count data model of demand for off-highway vehicle recreation	Four U.S. Forest Service managed sites for OHV recreation in mountainous western NC	357 surveys administered in 2000 to OHV users at the four sites Travel cost model	\$39.64: Badin Lake \$124.88: Brown Mountain \$32.22: Upper Tellico \$118.52: Wayehutta \$80.32 Simple average*	Tables 3-6 of the paper. Estimates reflect poisson model for all but Upper Tellico which is poisson model with heterogeneity (as selected in RUVD).
Englin et al. (2006) Alternative models of recreational off-highway vehicle site demand	See Holmes et al. (2010)	See Holmes et al. (2010)	\$49.81 - \$76.29: Badin Lake \$53.95 - \$56.80: Brown Mountain \$184.18 - \$239.92: Upper Tellico \$33.49 - \$48.80: Wayehutta \$96.91: Simple average*	Table III of the paper (restriction set 1). The range for each site reflects estimates from both poisson and negative binomial models.
Holmes and Englin (2005) User Fees and the Demand for OHV Recreation	See Holmes et al. (2010)	See Holmes et al. (2010)	\$82.87 - \$91.17: Badin Lake \$42.29 - \$91.17: Brown Mountain \$607.79 - \$759.73: Upper Tellico \$280.34: Simple average*	Table 6 of the paper. The range for each site reflects estimates from both negative binomial and random parameter poisson models.
Silberman and Anderek (2006) The economic value of off-highway vehicle recreation	OHV recreation across AZ	919 surveys of Arizona residents engaged in OHV recreation (ATV, 4-wheeled truck, SUV, motorcycle, dune buggy) Contingent valuation method	\$67.20: Pooled sample	Table 3 of the paper; adjusted WTP per person per day.
Deisenroth et al. (2009) Non-market valuation of off-highway vehicle recreation in Larimer County, Colorado: Implications of trail closures	OHV recreation at three different National Forest sites in Larimer County, CO	206 surveys administered in 2007 to OHV users at the three sites Contingent valuation method	\$118.48: Value per person per day	Table 3 of paper, WTP per person per day, logic mean.

Study	Study Site(s)	Study Data and Methods	Value Per Person Per Activity Day (2025\$)	Source of Estimates in Paper
Jakus et al. (2010) The Welfare Effects of Restricting Off-Highway Vehicle Access to Public Lands	OHV recreation across UT	335 surveys administered in 2007 to OHV owners in UT Travel cost model	\$122.04: Standard model \$79.10: Two-stage model \$100.57: Simple average*	Text discussion, interpreted as per-trip values and no trip length provided.
Bowker et al. (2009) Estimating the net economic value of national forest recreation: An application of the National Visitor Use Monitoring Database	National Forest Sites across the United States; the Southern region includes sites in TX, OK, AR, LA, MS, AL, GA, FL, KY, TN, SC, NC, VA	90,542 surveys administered from 2000 to 2003 at 120 National Forest Sites; 6,126 observations for the Southern region specifically Travel cost model	\$27.95: Southern region average \$108.67: National average	Table 15 of paper, “wage rate opportunity cost”, CS per activity day.

Source: IEC summary based on data found in Oregon State University’s Recreation Use Value Database (RUVD): <https://recvaluation.forestry.oregonstate.edu/>

Notes:

- All “simple averages” marked with * reflect IEC calculations using the preceding estimates (or range of estimates) taken from the papers. Where a range is provided, we include both the low end and the high end in the simple average calculation.
- WTP estimates are converted from 2016 dollars (as denoted in RUVD) to 2025 dollars using the GDP deflator. Source: BLS (2024). “May 2024 State Occupational Employment and Wage Estimates, Florida.” Available at: <https://data.bls.gov/oes/#/area/1200000>. Data downloaded March 15, 2026.

4.2.3 Select Appropriate Economic Values

Based on our review of the available literature and assessment of each activity's match with the rule's policy case, we select a per person per day value for use in the break-even analysis. For the purpose of this analysis, we transfer the Southern regional average value from Bowker et al. (2009), equivalent to \$27.95 per person per ORV activity day. This value was selected for the following reasons:

- The underlying survey data include information from individuals that engaged in ORV recreation in Florida;
- It includes ORV users that embarked on multi-day trips, which better approximates conditions at the preserve and suggests the potential for camping;
- It reflects preferences for ORV trips on public, Federally-managed lands, including among forest terrain;
- The average number of people per recreation trip in the Southern region is approximately 2 (although the number reported is not specific to ORV trips) which is similar to the 2.5 people per trip assumed at the preserve;
- The average age of the respondents in the Southern region is approximately 45 (although the age reported is not specific to ORV trips), which is similar to the age of ORV permit holders observed in University of Idaho (2007a); and
- It is the lowest per person per day value identified in our search and therefore will yield a conservative (more likely to understate than overstate) estimate of the value of an ORV trip.

4.3 Break-Even Scenarios

In Chapter 3, we estimate the incremental cost of the proposed rule.⁴⁴ To calculate the point at which benefits would equal costs, this section presents calculations corresponding to the three pathways through which the rule could generate benefits for ORV permit holders. Although these pathways are analyzed independently, in practice the rule would alter behavior and value across all three mechanisms simultaneously, and it would not be necessary for each calculation to hold true in isolation.

Because the trajectories of costs and benefits differ across the first 20 years of rule implementation, we perform this break-even calculation with respect to the annualized cost and benefits, under both 3 percent and 7 percent discount rate assumptions.

4.3.1 Scenario 1: New ORV Trips Among New ORV Permittees

This break-even calculation assumes that all new ORV trips resulting from the rule are enjoyed by first-time ORV permit holders. Under this assumption, the rule would generate not only consumer surplus benefits from the new trips, but also incremental costs associated with the time required to complete and process ORV permit applications, as described in Section 3.4. Accordingly, new trips among new ORV permittees have implications

⁴⁴ Given data limitations, our assessment of the adverse impacts to natural and cultural resources in Chapter 3 is qualitative. As a result, we are unable to include a quantified estimate of the incremental cost of these impacts in our total cost estimate, and therefore, the break-even analysis presented in this section may underestimate the magnitude of benefits required to offset total costs. Based on the information provided in the EIS and described in Chapter 3, adverse impacts to natural and cultural resources, if they occur, are likely to be minor. Therefore, any bias in our break-even analysis is also likely to be minor.

for both the incremental costs and incremental benefits of the rule. Other key assumptions for the break-even calculation under this scenario include the following:

- New ORV permittees apply for and receive a new permit in Year 3 (the year after the trails are reopened);
- The same permit holders apply for renewal permits in all subsequent years (Years 4 through 20);
- All new ORV permit holders are private individuals and therefore undertake an average of 15.5 ORV trips per year (see Section 2.4.2);
- Each ORV trip is 2.5 days in length (see Section 2.4.2); and
- The benefit per person per ORV activity day is \$27.95 (see Section 4.2.3).

To justify the incremental costs of the rule on an economic basis, the increased ORV access generated by the proposed rule would need to result in at least 66 and 116 new ORV permittees, assuming discount rates of 3 and 7 percent, respectively.⁴⁵ In other words, the proposed rule would need to increase permit demand by 5 percent to 9 percent relative to the current annual average permit issuance rate of 1,250 ORV permits. The Superintendent anticipates that the suite of new recreational access initiatives underway at the preserve has the potential to increase ORV usage to near the ceiling over the first few years of the rule.⁴⁶ An additional 66 to 116 ORV permits would be well-within the 2,000-permit cap.

4.3.2 Scenario 2: New ORV Trips Among Existing ORV Permittees

In this alternate break-even scenario, we assume that the proposed rule does not generate demand for new ORV permits and that all new trips are taken by the existing 1,250 ORV permit holders. Here, we identify the number of new trips necessary among these existing permittees for the benefits and costs of the rule to break even. In this scenario, there are no new permittees. Therefore, we do not include new administrative costs of applying for and issuing new or renewal ORV permits on the cost side of the break-even equation because these existing permit holders are expected to renew their permits even in the absence of the rule.⁴⁷

In this scenario, we find that the proposed rule would need to increase the number of person-trips among existing ORV permit holders by at least 995 and 1,730 person-trips annually, assuming discount rates of 3 and 7 percent, respectively. This change represents an increase of 3 percent to 6 percent relative to the baseline number of ORV person trips estimated in Section 2.4.2 (31,165 trips annually). We also note that the number of new person trips needed among existing ORV permit holders is slightly less than the number required for new ORV permit holders because the cost associated with ORV permit applications is not included in this calculation.

Survey evidence from the preserve demonstrates that ORV users are currently limited by the existing trail network. In a 2007 survey of visitors for the preserve, 71 percent of ORV permit holder respondents said they would like to access the Addition in the future (University of Idaho 2007b, page 74 question 11a). Finally, two of the most frequent responses to suggestions for what a manager planning for the future at the preserve should propose included adding more ORV trails (University of Idaho 2007b, page 83 question 24). Collectively, these survey responses suggest ORV users prefer greater access to the Addition than is currently available and that these existing permit holders may increase use of their permits once trails are reopened in the Addition.

⁴⁵ Issuing between 66 and 116 new permits would result in between 1,021 and 1,794 new person trips per year.

⁴⁶ Personal communication between IEC and NPS on March 12, 2026.

⁴⁷ While existing permittees are not expected to incur new administrative time costs to request an additional sticker, they will pay a fee for the additional sticker. This fee is a transfer payment, rather than a welfare loss, as discussed in Chapter 5. Therefore, it is not included in the break-even calculation.

4.3.3 Scenario 3: Enhanced Value of Existing ORV Trips

In this final break-even scenario, we estimate the change in the value of existing ORV trips among existing permit holders needed for the benefits of the rule to equal costs. In this scenario, we assume that existing ORV trips would be enhanced by the expanded trail network. Here, we hold constant the number of baseline annual ORV trips (31,165, see Section 2.4.2) and calculate the incremental increase in value these trips would need to provide. Like Calculation 2, there are no new costs associated with ORV permit applications in this calculation.

Applying this methodology, we find that the proposed rule would need to provide an incremental increase in value of at least \$2.23 to \$3.88 per trip-day, *over and above the value the ORV user would experience without access to the reopened ORV trails in the Addition*. As described in Section 4.2, the best available evidence suggests that the current value of an ORV trip at a location similar to the preserve generates consumer surplus on the order of \$27.95 per person per ORV activity day. Therefore, the increased value would represent an 8 percent to 14 percent increase over the baseline value, assuming discount rates of 3 and 7 percent, respectively.

No existing study offers an estimate of the incremental increase in value existing ORV visitors may place on increased trail access. However, in addition to the previously cited survey evidence regarding demand for enhanced ORV trail access at the preserve specifically (see Calculation 2), research in other contexts suggests that the value of an ORV trip increases with access to more trails. For instance, Jakus and Blahna (2005) use responses from ORV users throughout Utah to estimate that individuals are willing to pay approximately 6.3 percent more per trip for improved access to wilderness land relative to current access conditions in the state. While the location and context differ, the findings suggest that increased values are possible at the preserve as well.

4.4 Summary of Break-Even Results

In Table 4-2, we summarize the results of the three break-even scenarios described in Section 4.3. In all three calculations, modest increases in new permits, trips among existing permit holders, or the value of an ORV trip would result in benefits that equal costs. Importantly, each of these changes is evaluated in isolation. For example, under Scenario 1, benefits will equal or exceed costs if at least 66 to 116 new permits are issued in Year 3 of our analysis, and those permits are renewed annually. This calculation assumes that no additional trips are taken by existing permit holders, and the expansion of ORV trails in the Addition has no impact on the value of a trip. In reality, it is more likely that all three types of effects will occur simultaneously, in which case the combined threshold values will be lower.

Table 4-2. Break-Even Results

Scenario	3 Percent Discount Rate	7 Percent Discount Rate	Baseline Number or Value	Percent Change Required Relative to Baseline Value
Calculation 1: New ORV Trips Among New ORV Permittees				
Minimum number of new ORV permits that would need to be issued annually for benefits to equal or exceed costs	66 permits	116 permits	1,250 permits	5 to 9 percent increase
Calculation 2: New ORV Trips Among Existing ORV Permittees				
Minimum number of new ORV person-trips that would need to be taken annually by existing permittees for benefits to equal or exceed costs	995 person-trips per year	1,730 person-trips per year	31,165 person-trips per year	3 to 6 percent increase
Calculation 3: Enhanced Value of Existing ORV Trips				
Minimum incremental increase in the value of an ORV trip that would need to be experienced by existing permittees (2025 dollars) for benefits to equal or exceed costs	\$2.23 per person per day	\$3.88 per person per day	\$27.95 per person per day	8 to 14 percent increase

Source: IEc calculations.

Notes:

- a. Percent changes reported in the final column are based on unrounded inputs in the model.

4.5 Key Sources of Uncertainty

The results of this break-even analysis are subject to several key assumptions which introduce uncertainty. Table 3-7 describes the assumptions associated with our estimates. This table includes a key assumption or source of uncertainty in each row, as well as a description of the potential magnitude of the effect on our overall estimates.

Table 4-3. Sources of Uncertainty in the Break-even Analyses

Key Assumption or Source of Uncertainty	Direction of Potential Bias	Likely Effect of the Uncertainty on Results
Each permit results in an average of 15.5 ORV person trips per year	Unknown.	Potentially moderate effect on results. The estimate is based on the Superintendent's best estimate of the frequency of ORV trips by current private permit holders. The actual average number of trips per year may be over- or understated.
The value of an ORV trip in the Addition is \$27.95	Unknown.	Potentially moderate effect on results. The estimate is based on a review of currently available studies estimating consumer surplus generated by ORV trips to national forests in the southern United States, including Florida. To the extent that the amenities provided by the trails in the preserve differ from those sites included in the study, this estimate may over- or understate actual trip value.

CHAPTER 5 | Fiscal Effects

In addition to estimating the incremental costs and benefits of the proposed rule, OMB directs Federal agencies to identify transfer payments (OMB 2003). Transfers are monetary payments between persons or groups that do not affect the total resources available to society. They are a benefit to recipients and a cost to payers, with zero net effect. Such transfers are generally ignored in benefit-cost analysis, as long as they do not lead to behavioral changes that significantly affect the calculation of net benefits.

However, information about transfers is necessary for analysis of the distributional effects of a regulation. In some cases, regulations may result in the transfer of surplus value between consumers and producers. Alternatively, some types of transfers payments, such as taxes, fees, and surcharges, affect Federal budgets. For clarity, we refer to the latter category of transfers as “fiscal effects” and report them separately in this analysis.

NPS collects annual fees from ORV permit holders.⁴⁸ Currently, the preserve charges \$100 annually for a sticker to access the original preserve via ORV.⁴⁹ NPS also plans to charge permittees an additional \$100 for a sticker if they wish to access the Addition.⁵⁰ As described in Chapter 3 and 4, there is uncertainty regarding how the proposed rule will change demand for new ORV permits. There is also uncertainty regarding the number of existing ORV permit holders who will also request an Addition sticker when renewing once the proposed rule is in effect. As a result, we are unable to quantify the amount of additional fees that will be paid by ORV permittees to NPS.

As described previously, of the 2,000 total permits available for ORV use at the preserve, a maximum of 650 permittees may access the Addition. Therefore, the maximum annual amount that NPS could generate specific to ORV access in the Addition is \$65,000 per year (650 Addition stickers * \$100 per Addition sticker). If these are all new permittees and if these new permittees also pay the fee for a sticker for original preserve, then NPS could see an additional \$130,000 in total fees from this increased demand for ORV use at the preserve (650 new permittees * \$200 per permittee for both an Addition sticker and an original preserve sticker).

⁴⁸ For more about the ORV permit process at the preserve, see: <https://www.nps.gov/bicy/planyourvisit/off-road-vehicle-permits.htm>

⁴⁹ Personal communication between IEc and NPS on May 3, 2023.

⁵⁰ Personal communication between IEc and NPS on April 22, 2026.

CHAPTER 6 | Regulatory Flexibility Analysis

Under the requirements of the RFA, as amended by the SBREFA and E.O. 13272 entitled “Proper Consideration of Small Entities in Agency Rulemaking,” agencies must consider the potential impact of proposed regulations on small businesses, small governmental jurisdictions, and small organizations during the development of their rules.

Specifically, NPS is required to prepare a RFA analysis and take other steps to assist small entities, unless it certifies that the rule will not have a “significant economic impact on a substantial number of small entities” (Regulatory Flexibility Act 1980). The Small Business Administration (SBA) provides guidelines on the analytical process to assess the impact of a particular rulemaking on small entities (SBA 2017). Generally, an agency first conducts a threshold analysis to determine whether it can certify the proposed rule. The threshold analysis provides the factual basis for such a determination. If the results of the threshold analysis indicate that a rule may have a significant impact on a substantial number of small entities, or if the agency is uncertain, it is required to prepare an IRFA and publish it for public comment with the proposed rule. The analytic components of an IRFA are provided in the text box below.

This chapter presents data and analysis in support of these requirements. First, we provide an overview of the proposed rule in Section 6.1. Then, we conduct the threshold analysis in Section 6.2. Because the significance of impacts of the proposed rule on small entities is uncertain, we also prepare an IRFA in Section 6.3.

Components of an IRFA

1. A description of the reasons why action by the agency is being considered;
2. A succinct statement of the objectives of, and legal basis for, the proposed rule;
3. A description of, and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
4. A description of the projected reporting, record-keeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
5. An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule;
6. A description of any significant alternatives to the proposed rule that accomplish the stated objectives of applicable statutes and that minimize any significant economic impact of the proposed rule on small entities, such as,
 - the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
 - the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
 - the use of performance rather than design standards; and,
 - an exemption from coverage of the rule, or any part thereof, for such small entities.

6.1 Overview of the Proposed Rule

Big Cypress National Preserve was authorized by Congress in 1974 (Public Law [PL] 93-440) and originally included 570,000 acres of land and water in southern Florida. In 1988, Congress passed the Big Cypress Preserve Addition Act (Addition Act, PL 100-301), which expanded the preserve by approximately 147,000 acres. Over the subsequent decade and a half, the NPS prepared a series of plans governing ORV access in the preserve, including the General Management Plan (GMP) (NPS 1991), the 2000 Recreational ORV Management Plan (NPS 2000), and the Addition Lands GMP (NPS 2010).

In 2011, primary ORV trails in the Addition were briefly opened following authorization by the NPS (2010). However, this opening was subsequently challenged through litigation, resulting in a settlement agreement that required the trails to close while the NPS completed additional environmental compliance and administrative processes. Currently, ORV use is permitted on certain designated trails within the original portion of the preserve only, using the regulatory framework in special regulation 36 CFR 7.86, and is subject to a permitting process administered by the NPS.

To date, motorized access has not been reauthorized in the Addition for two reasons: 1) the NPS has continued to work through the environmental compliance activities and 2) the preserve map referenced in 36 CFR 7.86 was never updated to reflect this newer portion of the preserve. As a result, recreation in the Addition remains limited to non-motorized activities such as hiking, dispersed camping, and wildlife viewing. While the NPS is currently working to harmonize ORV management across the entire preserve through implementation of its Backcountry Access Plan (NPS 2024), which will also fulfill the outstanding environmental compliance requirements, the Superintendent continues to lack the regulatory authority necessary to reopen ORV trails in the Addition. This gap stems directly from the limitations of 36 CFR 7.86, which references a map depicting the preserve's boundaries as they existed in 1975, well before the Addition was incorporated into the preserve.

The proposed rule would update the map referenced in 36 CFR 7.86 to reflect the preserve's current boundaries, which include the Addition. In doing so, the proposed rule would provide the Superintendent with the regulatory authority necessary to reopen the Addition to ORV trail use, thereby expanding recreational access while ensuring the protection of the preserve's natural and cultural resources through the framework established by the new Backcountry Access Plan. Furthermore, by bringing the Addition under the same regulatory umbrella as the rest of the preserve governed by 36 CFR 7.86, the proposed rule would establish a consistent and cohesive management scheme for ORV use across the preserve as a whole.

The proposed rule would enable reopening of approximately 110 miles of primary ORV trails in the Addition.⁵¹ While the scope of the proposed rule only relates to ORV use in the Addition, NPS would reopen an additional 13 miles of ORV trails in the original preserve that connect with the Addition to allow for connection between the two sections of the preserve, for a total of 123 restored trails. Because these trails were established following the approval of the Addition Lands GMP (NPS 2010), the proposed rule will not result in the clearing of new trails, but instead reopen the previously established trail network.

6.2 Threshold Analysis

A threshold analysis conducted pursuant to RFA/SBREFA involves determining whether the proposed regulatory changes will significantly impact a substantial number of small entities subject to the regulation.

⁵¹ Email communication between IEC and NPS on February 20, 2026. During subsequent personal communication with NPS, including on March 12, 2026, the Superintendent clarified that the exact trail mileage remains uncertain until the preserve has an opportunity to undertake an on-the-ground assessment of the existing trail network in the Addition.

Responding to this question requires understanding both: 1) the number of affected entities that are small, and 2) the economic impact on these small entities in the context of the proposed regulatory action.

Judicial review of agency compliance with the RFA requirements limits the scope of regulatory flexibility analyses to directly regulated entities (SBA 2017). In the case of the proposed rule, no entities are directly regulated. The proposed rule expands and improves access to certain areas of the preserve, making the destination more attractive to the general public. However, current commercial entities operating tours and providing other services in the park may see increased demand for their services as a result of the proposed rule. Out of an abundance of caution, this threshold analysis considers the potential impacts of the proposed rule on these entities.

6.2.1 Substantial Test

This section explores whether a substantial number of affected entities are small. The RFA does not provide a definition of a “substantial number.” In its guide to government describing how to comply with the RFA, the SBA states:

“Substantial number” depends on the number of regulated entities and the size of the regulated industry. The interpretation of the term “substantial number” is not likely to be five small firms in an industry with more than 1,000 small firms. On the other hand, it is important to recognize that five small firms in an industry with only 20 firms would be a substantial number. Depending on the rule, the substantiality of the number of small businesses affected should be determined on an industry-specific basis and/or on the number of small businesses overall. (SBA 2017, p. 21)

NPS provided data on the 15 entities with a CUA to operate in the preserve, including entities operating tours and providing other goods and services unrelated to ORVs.⁵² We focus on current holders of CUAs because NPS does not intend to increase commercial access to the preserve in the short term as a result of the proposed rule.⁵³ This analysis considers the small entity status of each of the businesses with CUA, as opposed to determining which businesses currently hold ORV permits, in order to provide a more holistic prospective on the universe of businesses that may be directly affected by the rule.

For each of these businesses, we manually retrieve business profiles in D&B Hoovers using the business names and addresses provided by NPS. We were able to find business profiles for 10 of the 15 CUA holders. For each of these businesses, we collected primary NAICS code, number of employees, and annual revenue information as presented in D&B Hoovers.^{54,55} In each case, we compare number of employees and annual revenues with the SBA’s definitions of small business associated with the business’s six-digit NAICS code (SBA 2023).⁵⁶ As shown in Table 6-1, all of the businesses qualify as small businesses. We assume that the remaining 5 businesses for which profiles could not be identified in D&B Hoovers are also small entities.

⁵² Data provided by NPS to IEC via email on November 14, 2023.

⁵³ Personal communication between IEC and NPS on May 3, 2023.

⁵⁴ D&B Hoovers contains data fields for both “employees at single site” and “employees at all sites.” When both numbers are provided, we default to using the “employees at all sites” entry in order to capture the size of the larger parent company. When only the “employees at single site” information is available, we use that entry instead.

⁵⁵ The matched data were downloaded from D&B Hoovers on November 15, 2023, accessed via: app.dnbhoovers.com/login.

⁵⁶ In some cases, SBA provides a size standard for the NAICS code as well as an “exception” for a sub-set of businesses with specific activity types. This analysis does not consider the “exceptions” when classifying businesses as small.

Table 6-1. Assessment of Small Entities with Commercial Use Authorization (CUA) at Big Cypress National Preserve

NAICS code	NAICS Industry Description	SBA Size Standard Threshold for Small Entities	Number of Businesses with CUA at Big Cypress National Preserve	Percent of Business with CUA at Big Cypress National Preserve that are Small Entities
561520	Tour Operators	\$25 million	5	100%
713940	Fitness and Recreational Sports Centers	\$17.5 million	1	100%
713990	All Other Amusement and Recreation Industries	\$9 million	1	100%
721199	All Other Traveler Accommodation	\$9 million	1	100%
722511	Full-Service Restaurants	\$25 million	1	100%
999990	Unclassified Establishments	N/A	1	100%
Not Found in D&B Hoovers		N/A	5	100%
All Businesses with CUA at Big Cypress National Preserve			15	100%

Sources: IEC analysis of CUA business information provided by NPS, business profiles from D&B Hoovers, and SBA small business size standards (SBA 2023). See text for details.

Notes: All businesses identified with NAICS code 999990 in D&B Hoovers are presumed small.

In five of the six industries represented by these entities, only one business is potentially affected by the proposed rule. Thus, within each of these industries, a proposed rule is unlikely to affect a substantial number of small entities. Within the “Tour Operators” industry, five small entities will potentially benefit from expanded access to the preserve. These five entities represent approximately 6 percent of all tour operators (88) of any size located in Collier, Monroe, and Miami-Dade Counties, where the preserve is located.⁵⁷ Assuming that a smaller number of these 88 businesses are small, the five potentially affected operators are likely to represent a substantial number of small operators in the tri-county region.

6.2.2 Significance Test

This section investigates whether the effects of the rule would be significant for the small entities affected by the proposed rule. The RFA does not define a “significant effect” in quantitative terms. In its guidance to agencies on how to comply with the RFA, SBA states,

[i]n the absence of statutory specificity, what is ‘significant’ will vary depending on the economics of the industry or sector to be regulated. The agency is in the best position to gauge the small entity impacts of its regulation. (SBA 2017, p. 18)

⁵⁷ U.S. Census Bureau. Go to data.census.gov and select “Find Tables.” Create a table for NAICS code 561520; filter for Collier, Monroe, and Miami-Dade Counties; select “CB2100CBP: All Sectors: County Business Patterns, including ZIP Code Business Patterns, by Legal Form of Organization and Employment Size Class for the U.S., States, and Selected Geographies: 2021.”

The U.S. DOI typically assumes that annual per entity costs exceeding 1 percent of the annual gross revenues for that entity represents a “significant” effect pursuant to the RFA/SBREFA.⁵⁸

Businesses with CUAs in the park have the potential to see increases in revenue associated with new ORV trips related to the proposed rule. However, data are not available to determine which portion of the new trips projected in this analysis are associated with these businesses. Further, while there is some available information about the price of ORV trips offered by current commercial operators, the total future amount that customers may spend at these and other businesses is unknown.⁵⁹ Therefore, the beneficial revenue impact on these small businesses is uncertain. Finally, any beneficial effects experienced by ORV tour operators will be partially offset by the \$100 annual fee for obtaining a sticker to access the Addition. Presumably operators will only purchase this sticker if the cost is less than the new profits generated by access to the Addition lands.

In summary, impacts to small businesses indirectly affected by the rule are expected to be net beneficial and will take the form of increased spending on goods and services by visitors at the preserve. Data limitations prevent quantification of the potential magnitude of these positive revenue impacts. Thus, we are uncertain whether the effect will be significant.

6.3 Initial Regulatory Flexibility Analysis (IRFA)

Because a substantial number of small tour operators may experience a beneficial impact on revenue, and the magnitude of that impact is uncertain, NPS cannot certify the rule at this time. Instead, we provide information in this section for an IRFA.

1. A description of the reasons why action by the agency is being considered.

In 2000, the preserve prepared the Recreational ORV Management Plan to establish a framework for primary and secondary ORV trails, eliminating dispersed ORV use throughout the preserve. When implementing the plan, several groups and individuals challenged the NPS’s approach, including for not undertaking analyses required under the National Environmental Policy Act (NEPA). Following settlement of these various lawsuits, NPS initiated work under NEPA. In 2024, NPS published a Final Backcountry Access Plan / Wilderness Study / Final EIS that evaluated ORV use in both the original preserve and the Addition. The subsequent Record of Decision selected an alternative that will allow ORV use only on designated motor vehicle and airboat routes in the original preserve and the Addition. The proposed rule is the final step in reopening ORV trails in the Addition section and harmonizing management of ORVs across the preserve.

2. A succinct statement of the objectives of, and legal basis for, the proposed rule.

The proposed rule is intended to increase and improve recreational opportunities for visitors at the preserve, while also protecting the preserve’s natural and cultural resources. Current management of recreational opportunities at the preserve limits ORV access to certain areas, consistent with special regulation 36 CFR 7.86. The proposed rule would update the outdated map in the special regulation to include the Addition, thereby authorizing the Superintendent to reopen primary ORV trails in that section of the preserve.

⁵⁸ The Small Business Administration’s *A Guide for Government Agencies How to Comply with the Regulatory Flexibility Act* lists costs that “exceeds 1 percent of the gross revenues of the entities in a particular sector” as a measure that may be used to illustrate if a regulation has a significant impact. See <https://www.sba.gov/sites/default/files/advocacy/How-to-Comply-with-the-RFA-WEB.pdf> page 19.

⁵⁹ For reference, we identified information about the current price of ORV trips offered by two current commercial operators within the preserve. On average, we found that these operators charge roughly \$120 to \$160 per adult per ORV trip.

3. A description of, and, where feasible, an estimate of the number of small entities to which the proposed rule will apply.

As described in Section 6.2, the proposed rule does not directly regulate any entities. Instead, it creates new and improved recreational opportunities at the preserve by reopening primary ORV trails in the Addition. Therefore, the proposed rule directly affects visitors to the preserve.

However, businesses operating within the preserve may experience a beneficial effect of increased visitation. NPS identifies 15 businesses with CUAs in the preserve, some of which operate ORV tours that may use the expanded trail network provided by the proposed rule. Based on an assessment of their business profiles, all of these businesses with CUAs are presumed to be small entities. Net impacts to small businesses are expected to be beneficial and will take the form of increased spending on goods and services provided by these entities. Data limitations prevent a quantitative estimate of the change in revenue likely to be experienced by these entities.

4. A description of the projected reporting, record-keeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record.

The proposed rule does not impose new reporting, record-keeping or other compliance requirements. However, the rule is expected to generate increased demand for ORV recreation at the preserve, and individuals operating ORVs are required to have a permit. Request for an ORV permit requires completion of an online safety course as well as submission of an application. Most ORV permit holders are individuals, not entities. Businesses with existing CUA may seek additional ORV permits if the rule results in increased demand for ORV trips and the expansion of their business.

5. An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule.

None.

6. A description of any significant alternatives to the proposed rule that accomplish the stated objectives of applicable statutes and that minimize any significant economic impact of the proposed rule on small entities.

The NPS considered a regulatory alternative in which the names and approximate mileage of every ORV trail within the preserve would be explicitly specified. The incremental costs and benefits of this regulatory alternative would be equivalent to those described in this report. However, compared to the proposed rule (and preferred alternative), this option would make adaptive management more challenging because changes to how ORV trails are described in the CFR for any reason, such as to respond to changing visitation patterns or resource conditions, would require rulemaking in the Federal Register. The proposed rule takes advantage of a longstanding regulatory framework for ORV use in the preserve that gives superintendents discretion to identify designated trails in the compendium

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