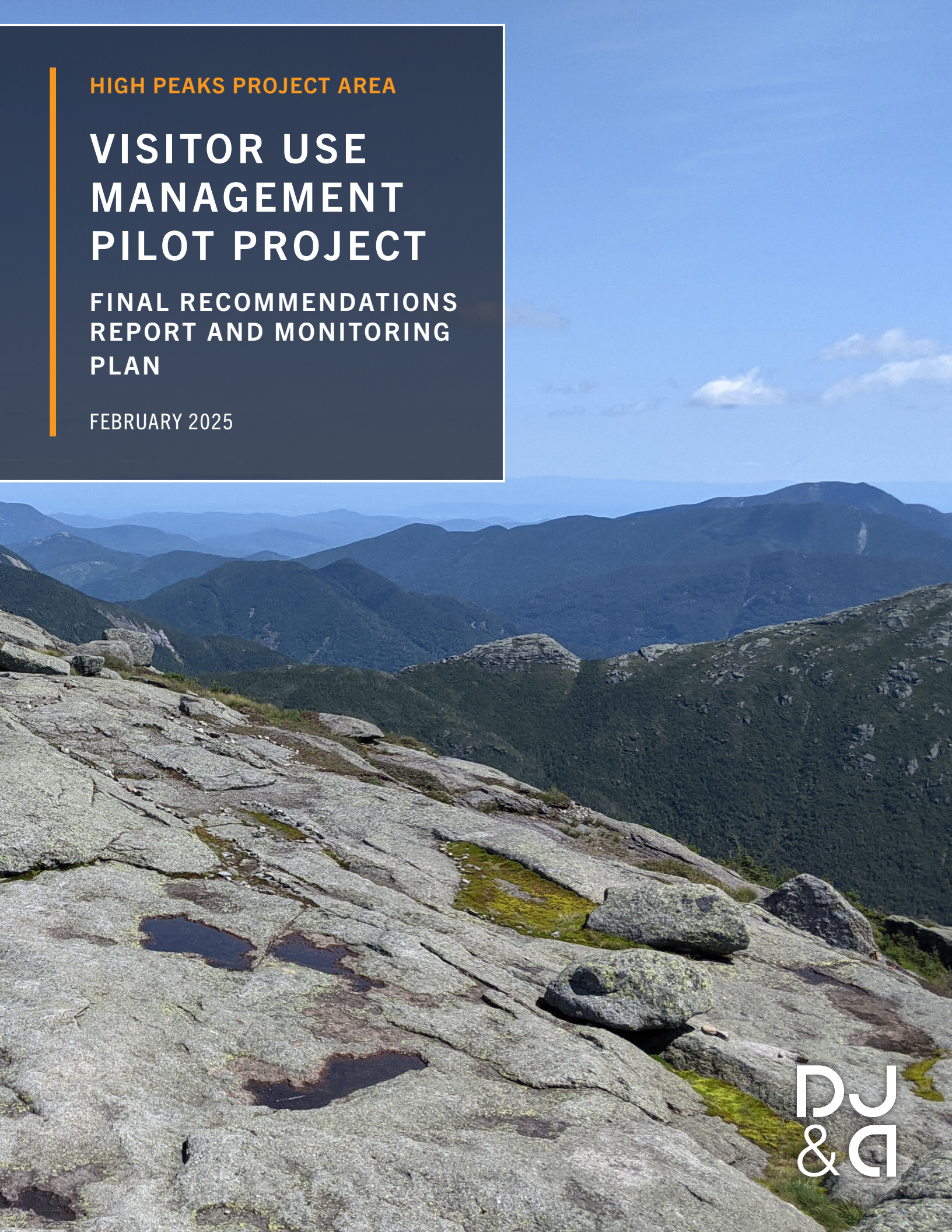
HIGH PEAKS PROJECT AREA

VISITOR USE MANAGEMENT PILOT PROJECT

FINAL RECOMMENDATIONS REPORT AND MONITORING PLAN

FEBRUARY 2025



Prepared for:
New York State
Department of Environmental Conservation
625 Broadway, 5th Floor
Albany, NY 12223-4254

Prepared by:
Steve Lawson
Abbie Larkin
Annie Engen

DJ&A, P.C.
2000 Maple St
Missoula, MT 59808

In partnership with:
Susan Hayman, Ross Strategic
Jen Morrissey & Eric Vierra, VHB
Rachel Franchina, Ruby Mountain Consulting

Recommendations Report – Final

Table of Contents

List of Tables

List of Figures

Appendices

Abbreviations

ADK	Adirondack Mountain Club
AMR	Adirondack Mountain Reserve
APA	Adirondack Park Agency
APSLMP	Adirondack Park State Land Master Plan
CAG	Catskill Advisory Group
CPSLMP	Catskill Park State Land Master Plan
HPAG	High Peaks Advisory Group
IVUMC	Interagency Visitor Use Management Council
IVUMF	Interagency Visitor Use Management Framework
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
ORDA	Olympic Regional Development Authority
PPV	People-per-viewscape
UMP	Unit management plan
VAOT	Vehicles-at-one-time
VUMF	Visitor Use Management Framework

Acknowledgement

This project was funded by the New York State Environmental Protection Fund and conducted in partnership with the New York State Department of Environmental Conservation.

1. Introduction

This report summarizes findings of the Visitor Use Management Pilot Project, initiated by the New York State Department of Environmental Conservation (NYSDEC) for the High Peaks Project Area.

The New York State Forest Preserve was established in 1885, making it among the earliest and most-precedent setting examples of landscape conservation in American conservation history. The Forest Preserve has special protections under New York State's constitution and its lands are designated to be protected as "forever wild." Today, the Forest Preserve includes 2.7 million acres of land in the Adirondack Park and 288,00 acres in the Catskill Park. These lands protect significant ecological, historical, and scenic resources and provide world class opportunities for outdoor recreation.

The NYSDEC Division of Lands & Forests has management responsibility for the 3-million-acre Forest Preserve. Management of New York State's Forest Preserve lands is guided by the Adirondack Park State Land Master Plan (APSLMP) and the Catskill Park State Land Master Plan (CPSLMP). Common language in the APSLMP and CPSLMP sets the overarching direction for the state's management of the Forest Preserve through the following statement:

> *If there is a unifying theme to the master plan, it is that the protection and preservation of the natural resources of the state lands within the Park must be paramount. Human use and enjoyment of those lands should be permitted and encouraged, so long as the resources in their physical and biological context as well as their social or psychological aspects are not degraded.*

Additionally, both the APSLMP and the CPSLMP mandate that planning for the Forest Preserve must include "an assessment of the physical, biological and social carrying capacity of the area with particular attention to portions of the area threatened by overuse…"[1]

For the last ten years, visitation to the Forest Preserve has been on an upward trend, culminating in 2020 with a record-setting year in many locations. These trends present opportunities for NYSDEC to engage an increasingly large and diverse share of the public to spend quality time in nature and, in turn, develop an affinity and sense of stewardship for the Forest Preserve. But these trends have also created unprecedented visitor use management challenges in some areas of the Forest Preserve. During peak periods, popular areas within the Forest Preserve experience compounding negative effects of intensive visitation, including parking shortages; unsafe conditions along busy state highways and local roads; crowded trails, summits and other points of interest; impacts to water quality; and physical degradation of trails and other facilities.

In 2019, NYSDEC tasked the Adirondack High Peaks Advisory Group (HPAG) with developing a strategic framework for promoting sustainable recreation in the High Peaks region of the Adirondack Park. A primary recommendation in the HPAG Final Report, released in 2020, was for NYSDEC to utilize the Visitor Use Management Framework (VUMF) developed by the federal Interagency Visitor Use Management Council (IVUMC) to identify and implement adaptive management techniques to

[1] The term "user capacity" is used in this report in place of the term "carrying capacity," except in direct quotations that include the term "carrying capacity." User capacity is defined as the maximum amounts and types of use that an area can accommodate without unacceptable impacts to resource conditions and visitors' experiences.

address impacts related to high visitor use (IVUMC, 2016).[2] These strategies would be developed, according to the HPAG's recommendations and VUMF principles, based on a foundation of research, monitoring, and stakeholder input.

Similarly, in 2020, NYSDEC convened the Catskill Advisory Group (CAG). The CAG issued a report in 2022 with a suite of recommendations for managing recreation use "…amid a surge in visitation in the Catskill Park and communities within it" (CAG, 2022). In their recommendations, the CAG called upon NYSDEC to adopt the VUMF as its core management tool and to use the VUMF process to identify desired visitor experiences, associated user capacities, and management steps necessary to create desired experiences and protect natural resources.

Concurrent with the work of and in response to recommendations from HPAG and CAG, NYSDEC has taken initial steps to address physical and ecological aspects of visitor use management and user capacities in the Forest Preserve. For example, NYSDEC has developed monitoring protocols for trail and campsite conditions and an "ecological scorecard" for measuring and monitoring biological resource conditions.

In addition, NYSDEC commissioned this project to apply the VUMF to address impacts of intensive visitor use on the quality and character of visitors' experiences and public safety in the Forest Preserve. The purpose of the Visitor Use Management Pilot Project is to promote safe, equitable, and inclusive access to the Forest Preserve, while protecting natural, historical, and scenic resources and the quality and character of visitors' experiences. To achieve this, the project used the VUMF to establish desired conditions, a long-term monitoring plan, adaptive visitor use management strategies, and user capacities for the project area, with a focus on the quality and character of visitors' experiences and public safety. The project was intentionally focused on visitors' experiences and public safety to augment NYSDEC's internal capacity to address resource-related monitoring and management.

To achieve its objectives for this project, NYSDEC selected two highly visited areas of the Forest Preserve as case studies: 1) the Central High Peaks Zone of the Adirondack Park (referred to hereafter as the High Peaks Project Area); and 2) the Kaaterskill Clove/Route 23A corridor of the Catskill Park (referred to hereafter as the Kaaterskill Clove Project Area). The scope of the project in each area includes collecting and analyzing visitor use data, engaging with the public and stakeholders, and developing long-term monitoring protocols and adaptive visitor use management strategies.

The culminating outcome of the project is a recommendations report for each project area. The purposes of the recommendations report are to document the project planning process, present the project team's[3] recommendations for adaptive visitor use management strategies, and provide a long-term visitor use monitoring plan to implement and sustain proactive visitor use management into the future.

This report presents the planning process, recommendations for adaptive visitor use, and a long-term monitoring plan for the High Peaks Project Area. The next sections of the report describe the project area in detail, establish the purpose and need for the project, document the legal and administrative

[2] The IVUMC consists of members from the six federal land management agencies. Council members collaborate to increase awareness and commitment to proactive, professional, and science-based visitor use management on public lands and waters.
[3] The project team consists of professional staff from DJ&A, Ross Strategic, Ruby Mountain Consulting, and VHB.

foundation for visitor use management and user capacities in the project area, and present the framework and planning process used to conduct the project. The report then presents results and recommendations, including desired conditions statements, indicators, and thresholds;[4] analysis of current visitor use, impacts, and user capacities; management strategies; and a monitoring plan.

The results and recommendations presented in this report have been prepared by the project team to reflect the management direction and professional judgment of NYSDEC. They are data-driven, informed by robust public and stakeholder engagement, and were developed according to the principles of the VUMF, which is the "gold standard" for addressing visitor use management and user capacities in parks and protected areas globally.

2. Project Area

The High Peaks Project Area is approximately 115 square miles in size and is in the eastern High Peaks Wilderness Complex in the Adirondack Park, New York (Figure 1). During the summer season, visitors are drawn to this area's expansive trail network and opportunities for remote and high-elevation hiking. Many popular routes require a full day of hiking and visitors often travel from across New York State and the surrounding region, including Canada, to visit the High Peaks.

Some visitors are drawn to the area specifically for the opportunity to hike one or complete hikes of all of the 46 summits in the area that are above 4,000 feet,[5] including the state's highest point, the summit of Mt. Marcy. Visitors also come to the High Peaks Project Area for shorter day hikes, to backpack, camp, rock climb, fish, and participate in other outdoor recreation activities.

To align with the area's Wilderness designation, there are limited facilities and structures beyond the formal parking lots and trailheads. There is, however, an extensive network of trails and signage in the interior of the project area maintained by NYSDEC, as well as backcountry campsites and lean-tos in select locations. The High Peaks Project Area also includes several miles of trails that are not formally maintained by NYSDEC. These trails are traditionally referred to as "unmarked herd paths," but due to informal maintenance and increasing visitor use levels, these trails have become increasingly popular and easier to follow.

[4] These are terms for key components of the VUMF and they are defined in *Section 5. Framework and Planning Process*.
[5] There are 46 summits in the Adirondack Park traditionally measured at 4,000 ft high and above and recognized as "High Peaks." Hiking all 46 summits is a popular hiking challenge.

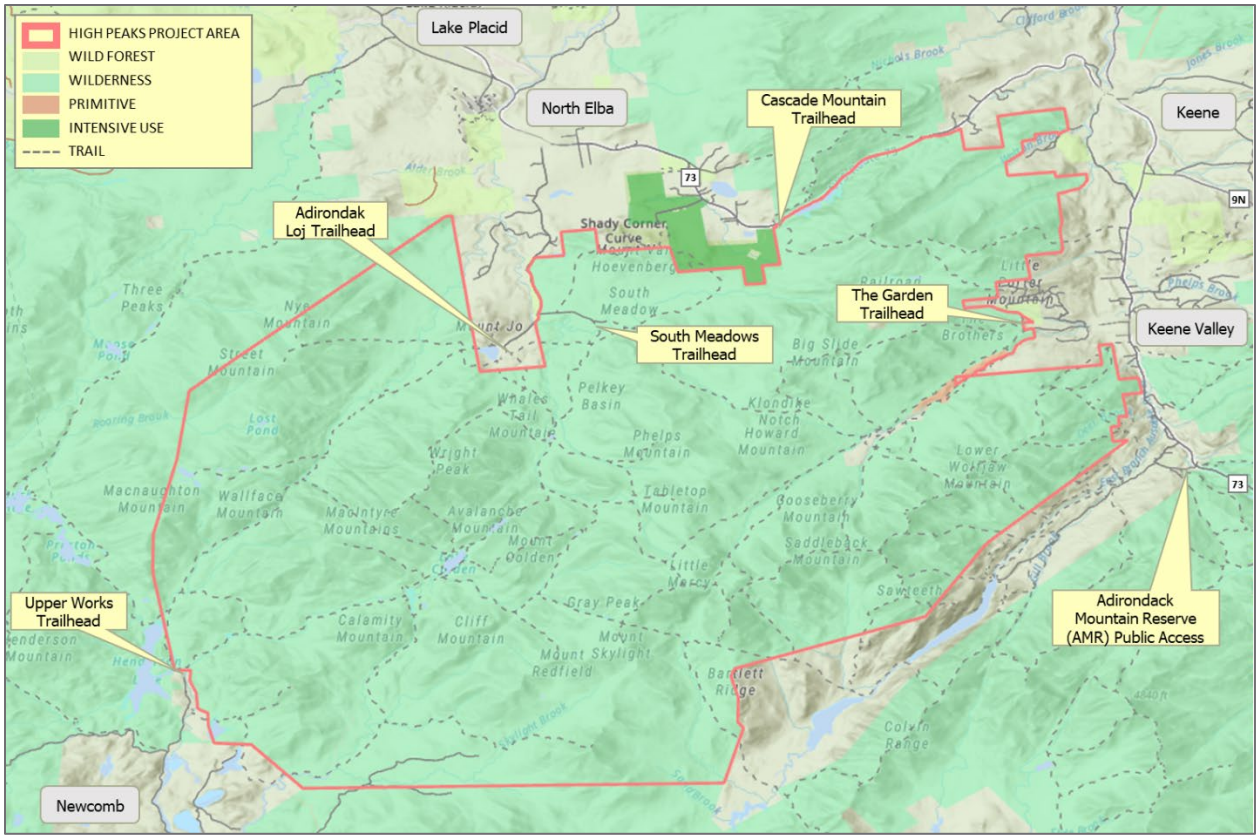


Figure 1. High Peaks Project Area.

Visitors can access the High Peaks Project area from multiple trailheads and parking lots that are dispersed around the periphery of the project area (Figure 1). Travel to the most heavily visited point of access to the project area is via State Route 73 to Adirondack Loj Road. Adirondack Loj Road provides access to Meadows Lane and the Adirondak Loj, each of which provides access to the project area. Meadows Lane is on Forest Preserve land in designated Wilderness. There are several designated, primitive campsites along Meadows Lane, a small parking area at the junction with Adirondack Loj Road, another small parking area at the eastern end of the road, and a trailhead at the eastern end of the road that provides access to the High Peaks Project Area's trail network.

The Adirondak Loj is privately owned and operated by the Adirondack Mountain Club (ADK) and includes a large fee-based public parking area and public facilities. Public access through the ADK's property is made possible through a deeded easement with New York State. From the parking area at the Adirondak Loj, visitors can access the High Peaks Project Area's trail network by walking through the ADK's property to a trailhead beyond which they enter state land designated as Wilderness.

The ADK's parking area at the Adirondak Loj is the closest access point for many of the most popular hiking and backpacking opportunities in the High Peaks Project Area. The parking area will often fill to capacity very early in the morning on weekend days and holidays during the peak summer season and remain full through the afternoon hours. When the parking area at the Adirondak Loj fills, overflow parking occurs on the roadsides of Meadows Lane and Adirondack Loj Road, and in the small lots along Meadows Lane. Roadside parking is prohibited by town signage on Adirondack Loj Road between the Adirondak Loj entrance and Meadows Lane, but it is otherwise neither banned nor

endorsed on Adirondack Loj Road between Meadows Lane and State Route 73. Adirondack Loj Road and Meadows Lane are maintained and managed by the Town of North Elba, New York.

Another primary point of access into the project area is via the Cascade Mountain parking area and trailhead on State Route 73 east of Adirondack Loj Road (Figure 1). The trail to the summit of Cascade Mountain is one of the shorter routes to the summit of one of the 46 “High Peaks,” making it a popular option for many hikers. From the trail to Cascade Mountain, visitors can hike to another of the 46 High Peaks summits, Porter Mountain. It is common for visitors to pair the summits of Porter Mountain and Cascade Mountain in a single hike. The Porter Mountain summit is also accessible from a trailhead to the east off State Route 73 in Keene Valley, outside of the project area.

The designated parking at the Cascade Mountain trailhead on State Route 73 is limited. When the designated parking is full, overflow parking for access to Cascade Mountain occurs along the State Route 73 roadside. Some of this overflow parking occurs across the highway from the trailhead, and visitors commonly must walk across the high-speed, high-traffic highway to reach the trailhead. The trail itself has been flagged by NYSDEC as needing intensive management and rerouting that follows sustainable trail design, and plans are in place to relocate the trailhead and parking off of the highway.

Visitors can access the project area via the Johns Brook Valley by traveling on State Route 73 in the hamlet of Keene Valley to Johns Brook Lane and following it to The Garden trailhead and parking lot (Figure 1). The fee-based parking lot at The Garden trailhead is operated by the Town of Keene and a staff person is stationed at the parking lot to collect fees and manage parking. From the trailhead, visitors can hike along the Johns Brook Valley and up to mountain summits on either side of the valley.

The Garden trailhead also provides access through the Johns Brook Valley to NYSDEC-maintained and designated campsites and lean-tos where visitors can stay overnight in the project area. The Garden trailhead parking lot will often fill overnight or early in the morning on weekend days and holidays and remain full through the afternoon. Roadside parking is prohibited along Johns Brook Lane, which is not wide enough to accommodate it. The Town of Keene operates a fee-based shuttle service by agreement of NYSDEC that connects a parking area in town with The Garden trailhead and parking lot, but the days of operation vary each year. The purpose of the shuttle is to provide additional access when the parking lot is full.

The privately-operated Adirondack Mountain Reserve (AMR) and Ausable Club are located to the south of The Garden trailhead and just outside of the southeast boundary of the High Peaks Project Area (Figure 1). Public access at the AMR property is made possible through a common law easement with New York State. Since 2021, a free hiker parking reservation program has been in effect from May through October to manage visitor access at this location.

To access the project area from the south, visitors travel to the end of Tahawus Road in the Town of Newcomb to the Upper Works trailhead and parking lot (Figure 1). The parking lot is owned and was recently updated by the Open Space Institute. From the parking lot, visitors pass by the Open Space Institute’s historic preservation and interpretation of old mining operations on their way to the trailhead. From the trailhead, visitors can access the project area’s trail network, which ultimately connects to the Adirondak Loj and South Meadows trailheads to the north, and to The Garden trailhead to the east.

In recent years, the state has worked with partners to operate a free shuttle that travels along State Route 73 and stops at several trailheads located between the intersections of State Route 73 and

State Routes 9N and 9. Like the Town of Keene shuttle, this service has a variable schedule and was only operated on select days in 2021 through 2023. The goal of the shuttle system is to reduce parking and traffic pressure along State Route 73.

There are several other minor access points into the project area that are undeeded and not managed by NYSDEC. These provide unmanaged access to the project area and include Blueberry/Marcy Field, Rooster Comb, and Elk Lake.

3. Purpose and Need

The purpose of the NYSDEC Visitor Use Management Pilot Project in the High Peaks Project Area is to promote safe, equitable, and inclusive access to the Forest Preserve, while protecting natural, historical, and scenic resources and the quality and character of visitors' experiences. To achieve this, the project used the VUMF to establish desired conditions, a long-term monitoring plan, adaptive visitor use management strategies, and user capacities for the project area.

The project is needed to address the following persistent issues caused by high levels of visitor use in the High Peaks Project Area during the summer season:

- **Traffic and parking congestion at key points of access** controlled and managed by NYSDEC, New York State Department of Transportation (NYSDOT), the Town of North Elba, the Town of Keene, the ADK, and the AMR:
    - Along State Route 73, a primary travel corridor in the vicinity of busy trailheads including for Cascade Mountain, where the flow of traffic is impacted by vehicles parked on the roadway shoulder and by pedestrians walking along the road corridor toward their trailhead destination.
    - Along the Adirondack Loj Road and Meadows Lane, where parking demand regularly exceeds parking capacity and interferes with emergency access by restricting rights-of-way along the Adirondack Loj Road.
    - Along Johns Brook Lane and other residential streets that lead to The Garden parking lot, where parking demand similarly exceeds parking capacity and can restrict rights-of-way along Johns Brook Lane.
- **Visitor safety concerns** as pedestrians walk along road corridors toward their trailhead destination when parking lots are full, which can result in private land trespass, traffic jams, and other roadway hazards.
- **Visitor crowding** on popular Wilderness summits including Mt. Marcy, Algonquin Peak, and Cascade Mountain and reduced opportunities for solitude at hiking and backpacking destinations throughout the project area.
- **Visitor crowding** along primary trail corridors to popular destinations, including the Van Hoevenberg Trail to Mt. Marcy and the Algonquin Trail, and reduced opportunities for solitude while hiking and backpacking on trails throughout the project area.
- **Crowding-related impacts** to natural resources, including off-trail trampling of soils and vegetation and the formation of social trails from crowding-avoidance behaviors.

4. Foundation for Visitor Use Management and User Capacities

4.1 Legal and Administrative Foundation

The following legislation, policies, management direction, and planning documents provide the legal and administrative foundation for this project. The approach to address visitor use management and user capacities for the High Peaks Project Area was designed to be consistent with the principles, direction, and legal requirements contained within them.

New York State Constitution, Article XIV (1894) establishes constitutional protection of the Forest Preserve as a valuable natural resource that "shall be forever kept as wild forest lands," prohibiting resource extraction and exchange of ownership of these lands. Subsequent amendments to the article have made specific allowances for actions that would otherwise conflict with this article.

Adirondack Park State Land Master Plan (1972; updated in 2019) establishes that natural resource protection of the Adirondack Forest Preserve is paramount, and that human use and enjoyment of the Forest Preserve should occur to the extent that use does not degrade the physical, biological, social, or psychological aspects of natural resources. The plan defines the land classification system that applies to all Forest Preserve lands in the Adirondack Park and provides management guidelines for those lands by establishing geographic management units and related unit management plans (UMPs). This plan requires that each UMP includes an assessment of the physical, biological, and social carrying capacity of an area, particularly for areas threatened by overuse with respect to resource limitations and land use classification.

High Peaks Wilderness Complex Unit Management Plan (1999) and Amendment (2018) describe the biophysical, historic, and cultural resources; recreation use and users; and individual units that comprise the High Peaks Wilderness Complex in which the High Peaks Project Area is located. The UMP also outlines the management direction and proposed management actions for the High Peaks Wilderness Complex. The High Peaks Wilderness Complex UMP also documents issues related to overuse impacts on visitors' experiences in the Wilderness Complex, visitor safety issues along access corridors, and negative impacts that visitor behavior can have on natural resources and visitors' experiences.

High Peaks Advisory Group Report (2021) provides recommendations for a long-term, parkwide, strategic framework for the future management of the Adirondack High Peaks in response to increased visitor use pressures in the region. The framework was developed by the HPAG, which was formed by the State of New York and included representatives from local government and private business; natural resource planners; social scientists; tourism entities; and other non-profits with a vested interest in the High Peaks Wilderness Complex. In the report, the HPAG recommended NYSDEC take immediate action to adopt the VUMF to address visitor use management issues in the Adirondack High Peaks, and ultimately for the broader Adirondack Park.

4.2 Other Related Plans and Management Documents

The project approach was informed by the following planning and management documents prepared by NYSDEC or its partners.

Draft Management Guidance: Visitor-Use Management and Wildlands Monitoring of Forest Preserve Lands in the Adirondack Park (2021) presents guidance developed by NYSDEC and the Adirondack Park Agency (APA) for adaptive visitor use management that is consistent with the VUMF and complementary to the UMP process. The guidance includes a workbook for developing and implementing a visitor use management plan to address specific management issues following

the VUMF. It also includes definitions of key concepts and appendices that describe monitoring protocols for primitive tent site conditions, hiking trail conditions, trail use, visitor experience, and ecological integrity. The appendices include draft recommendations regarding desired conditions statements, indicators, and thresholds for Forest Preserve lands that are designated as Wilderness or Wild Forest.

Open Spaces for All Report (2020) provides recommendations to promote greater equity, inclusion, and access across New York State's outdoor spaces. The recommendations focus on engaging and empowering communities and partners, prioritizing equity at the forefront of future park and open space investments, and building support and capacity for implementation. The report was developed by the Open Space Institute and the New York Outdoor Recreation Coalition.

New York State Adirondack High Peaks Region Shuttle Feasibility Study (2021) reports the results of a study conducted by the U.S. Department of Transportation Volpe National Transportation Systems Center in coordination with NYSDEC. The purpose of the study was to examine the feasibility of a shuttle system on State Route 73. The study examined three operational scenarios designed to provide safe access to trailheads and other recreation destinations along the State Route 73 corridor.

5. Framework and Planning Process

This section presents an overview of the VUMF for addressing visitor use management, including user capacities, in parks and protected areas (IVUMC, 2016). It also describes and documents the planning process used in this project to implement the VUMF in the High Peaks Project Area.

5.1 Framework

Several frameworks have been developed to help provide systematic, transparent, and legally defensible approaches for addressing visitor use management and user capacities in parks and protected areas. Among the better known of these frameworks is the IVUMC's framework (VUMF), which was released in 2016. The VUMF is recognized internationally as a "gold standard" for addressing visitor use management and user capacities. It has been used to guide complex, high-stakes visitor use management plans and programs at the federal, state, and local levels in the U.S. and in parks and protected areas globally.

The IVUMC hosts a website and has developed several products that explain the elements and steps of the VUMF process and provide guidance on how to implement it (IVUMC-Home, n.d.). In essence, the VUMF and other similar visitor use management frameworks are indicator-based, adaptive management frameworks. They all share a common set of core components and principles as outlined in Figure 1 and described below. These components and principles provide the framework for addressing visitor use management and user capacities in this project for the High Peaks Project Area.

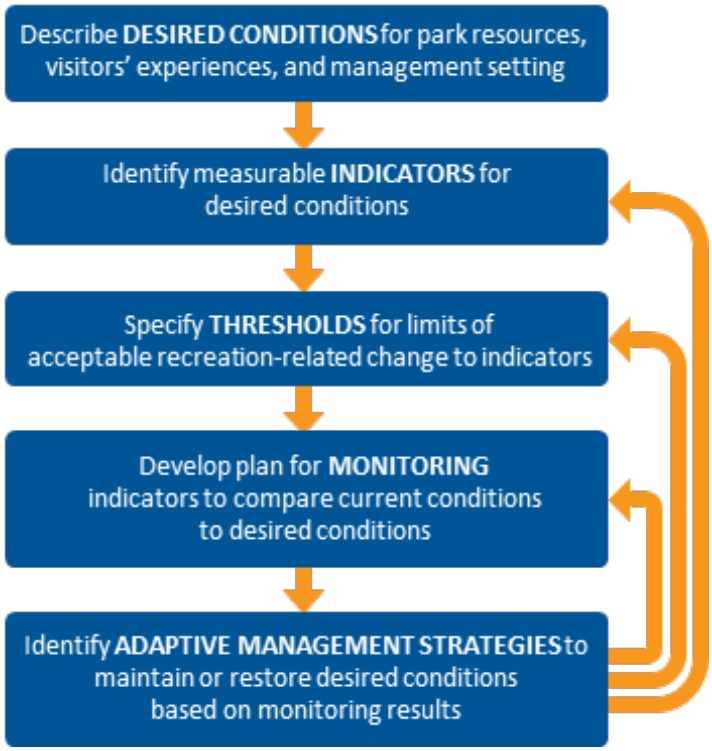


Figure 2. Core components and principles of the VUMF used to guide the NYSDEC visitor use management pilot project in the High Peaks Project Area.

5.2 Key Concepts

There are several key concepts that form the basis of the VUMF that warrant further description. Each of these key concepts is described in this section.

Desired conditions: Desired conditions provide an important part of the foundation for addressing visitor use management and user capacities. They are narrative statements that describe the resource conditions, the quality and character of visitors' experiences and opportunities, and the management setting an agency strives to achieve and maintain. Desired conditions statements differ from current conditions statements in that they describe what conditions, outcomes, and opportunities are to be achieved and maintained into the future, not necessarily what exists today. Desired conditions statements differ from management objectives statements in that they focus on *what* to achieve, rather than *how* to achieve it.

Desired conditions statements serve as the anchor for long-term monitoring and adaptive visitor use management strategies and actions. Desired conditions statements were developed in this project for the High Peaks Project Area, and they are reported in *Section 6. Desired Conditions.*

Indicators: Indicators are measurable attributes of park resources, visitors' experiences, and/or the management setting. They are used to assess impacts of recreation use in relation to desired conditions and to track changes in (i.e., monitor) conditions over time and in conjunction with adaptive visitor use management actions. To be applicable for visitor use management, indicators must be directly related to manageable attributes of recreation use, such as:

- Amounts, types, locations, and timing of recreation use.
- Visitors' knowledge, preparedness, and behavior.
- Design, construction, and maintenance of recreational facilities.

For example, the number of encounters with other groups per hour while hiking is an indicator related to the quality and character of visitors' experiences. Similarly, the aggregate areal extent of impact on recreation sites is an indicator related to the protection of natural resource conditions. As noted, the focus of this project is on addressing impacts of intensive visitor use on the quality and character of visitors' experiences and public safety in the High Peaks Project Area of the Forest Preserve. Correspondingly, indicators were developed in this project related to visitors' experiences and public safety in the High Peaks Project Area. They are reported in *Section 7. Indicators and Thresholds*.

Thresholds: Some amount of change to park resources, visitors' experiences, and even the management setting is inevitable with recreation use. Thresholds define the limits of acceptable recreation-related change to indicators beyond which conditions no longer align with desired conditions. Thresholds should be precise, time-bounded, and outcomes of recreation use rather than types or amounts of recreation use themselves. Thresholds have been specified for each of the indicators selected for the High Peaks Project Area, and they are reported in *Section 7. Indicators and Thresholds*.

Monitoring: A systematic monitoring program provides the structure to measure indicators and assess their conditions in relation to thresholds on a recurring basis. Monitoring results provide a data-driven basis to determine if visitor use management strategies are effective and/or if additional strategies are required to achieve desired conditions. The monitoring plan for the High Peaks Project Area is presented in *Section 10. Monitoring Plan*.

Adaptive visitor use management strategies: Adaptive visitor use management strategies are applied when on the ground conditions of one or more indicators are approaching, have reached, or have exceeded thresholds. These strategies should progress from those that are indirect and unobtrusive to more direct measures if they are warranted by conditions on the ground. For example, efforts to manage crowding-related impacts to visitors' experiences might include information and education campaigns to inform visitors of "best times" to visit to avoid crowded conditions. The intent of such a strategy is to shift some use away from peak periods and spread it out to reduce crowding. If conditions on the ground suggest information and education alone are not effective at addressing crowding, it may be necessary to implement a permit system or other more direct form of visitor use management.

Regular monitoring to assess the effects of management actions is required for adaptive visitor use management to work. *Section 9. Management Strategies* presents the project team's recommendations for adaptive visitor use management strategies for the High Peaks Project Area.

User capacities: User capacities are defined as the maximum amounts and types of recreation use an area can accommodate without unacceptable impacts to resource conditions and visitors' experiences. The VUMF provides a basis to estimate user capacities, where they are necessary as part of an overall visitor use management strategy for an area. User capacities are estimated based on quantifiable relationships between the types and amounts of recreation use and the conditions of use-related indicators ("user capacity indicators").

The best available data are used to estimate the maximum amount of recreation use that can be accommodated without exceeding thresholds for user capacity indicators. For example, trail counter data could be correlated with observations from hiking encounter patrols to estimate the maximum number of people who can hike in an area without exceeding a threshold for the number of encounters hikers have with other groups per hour or day. Crowding- and parking-related user capacities were estimated in this project for the High Peaks Project Area.

The methods used to estimate these user capacities, and the results are reported in *Section 8. Current Visitor Use, Impacts, and Capacities.*

5.3 Planning Process

The VUMF was implemented in this project using a robust planning process organized around the following four key components:

- NYSDEC/APA Core Team workshops
- Stakeholder Working Group meetings
- Public meetings and a public-facing project website
- Onsite data collection and analysis, including a survey of current visitors

Each of these components of the planning process is described in this section.

5.3.1 NYSDEC/APA Core Team Workshops

As an initial step in the project, NYSDEC assembled an internal core team of agency staff. The members of the NYSDEC/APA Core Team were selected from the NYSDEC Divisions of Lands and Forests, Forest Protection, and Outdoor Recreation; NYSDEC regional administration; and the APA. Members were selected to represent key areas of expertise, experience, and responsibilities related to managing recreation use in the High Peaks Project Area.[6] The project team prepared, facilitated, and documented the results of a four-part virtual workshop series with the NYSDEC/APA Core Team.[7] The workshop series was structured according to the Elements and Steps of the VUMF (IVUMC, 2016), as follows:

Workshop #1: Build the Foundation

The purpose of the first workshop was to clarify and establish with the NYSDEC/APA Core Team the purpose and need for the NYSDEC visitor use management pilot project in the High Peaks Project

[6] A summary of NYSDEC/APA Core Team engagement activities conducted as part of the project is included in Appendix A.

[7] The project team also conducted a project kickoff meeting and regular project check-in meetings with the NYSDEC/APA Core Team. A summary of the project team's engagement with the NYSDEC/APA Core Team is included in Appendix A. All of these engagement activities were conducted virtually.

Area. Interactive sessions were used to review and discuss guiding legislation, policies, and management direction and to assess and summarize existing information describing current conditions in the project area. A plan for public and stakeholder engagement was also discussed as part of the workshop and an engagement strategy was developed following and as an outcome of the workshop discussions (Appendix B).

In addition, the project team developed the project purpose and need presented in this report based, in part, on the results of this workshop. The project purpose and need were further informed and refined based on the other engagement and data collection components of the project. During the workshop, NYSDEC/APA Core Team members also shared and discussed personally selected photographs of the project area that represent to them special characteristics and values they associate with the High Peaks Project Area. This exercise provided a foundation for discussing desired conditions in the second NYSDEC/APA Core Team workshop.

Workshop #2: Define Visitor Use Management Direction

In the second workshop, the project team facilitated discussions with the NYSDEC/APA Core Team to define desired conditions for visitors' experiences, public safety, and related social conditions. A mapping exercise was used to document important activities, destinations, and visitor use conditions in the project area. The workshop also included discussions about potential indicators related to visitors' experiences and public safety. The NYSDEC/APA Core Team was asked to consider and discuss if they could measure just one thing to gauge the quality of visitors' experiences in the project area and just one thing to measure public safety, what those would be. The project team led follow-up guided discussions with the NYSDEC/APA Core Team to assist them in further evaluating and selecting indicators for the High Peaks Project Area.

Workshops #3 and #4: Identify Management Strategies

The final two workshops in the series focused on specifying thresholds for indicators, identifying visitor use management strategies, and establishing numeric user capacities, where applicable. The discussion and development of these components of the VUMF involved iteratively evaluating potential thresholds, user capacities, and management strategies in relation to current conditions and desired conditions. Prior to the management strategies workshops, the project team delivered a two-part data results presentation. This helped provide the NYSDEC/APA Core Team with a data-driven basis for evaluating and identifying thresholds, user capacities, and management strategies for the High Peaks Project Area.

In addition, the project team led supplemental guided discussions with the NYSDEC/APA Core Team to help them further evaluate and refine thresholds, strategies, and user capacities for the project area.

5.3.2 Stakeholder Working Group Meetings

Stakeholders were engaged in the NYSDEC Visitor Use Management Pilot Project for the High Peaks Project Area in two stages.[8] In the first stage, key stakeholders were identified by NYSDEC, with support from the project team, and invited to participate in a virtual group discussion. The purposes of the discussion were to: 1) provide the selected stakeholders with foundational information about the project; 2) invite them to share their questions, thoughts, and concerns about the project; and 3) ask them to share their perspectives about visitor use management issues and opportunities in the project area. Themes that emerged from this discussion with stakeholders were

[8] A summary of stakeholder engagement activities conducted as part of the project is included in Appendix C.

incorporated into the development of desired conditions statements for the project area and used to help inform the project team's onsite data collection and analysis plan.

In the second stage of stakeholder engagement, select stakeholders were invited to voluntarily participate in a formal Stakeholder Working Group.[9] The project team prepared, facilitated, and documented the results of a three-part in-person meeting series with the Stakeholder Working Group. Select members of the NYSDEC/APA Core Team attended the Stakeholder Working Group meetings as observers and to provide responses to questions that were more suitable for them than the project team to address. Like the NYSDEC/APA Core Team workshop meeting series, the Stakeholder Working Group meetings were structured to address the Elements and Steps of the VUMF in sequence. The Stakeholder Working Group meetings were scheduled in step with and to create feedback loops with the NYSDEC/APA Core Team workshop series.

The project team also delivered a two-part data results presentation to the Stakeholder Working Group between the first and second meetings. In addition, the project team conducted 1:1 conversations and virtual meetings with members of the Stakeholder Working Group to supplement and enhance the opportunities for them to engage in the process.

5.3.3 Public Meetings and Project Website

The planning process for the NYSDEC visitor use management pilot project in the High Peaks Project Area included multiple opportunities and formats for public engagement.[10] The focus of these engagement opportunities was on informing interested members of the public about the project and consulting with them on desired conditions and potential management strategies for the project area. As part of the public engagement strategy, the project team developed and hosted a project website to provide updates and host documents for public review. The website also contained a feedback and comment form that included a project email contact, an open response field, and specific prompting questions that were updated during the project.

The project team also prepared, facilitated, and documented the outcomes of two public meetings. The public meetings were designed to inform, consult, and involve the public during strategic points in the planning process. The first meeting was conducted in person and was held in Saranac Lake, New York. The second meeting was conducted virtually to provide an opportunity for members of the public from the broader region to participate more easily. In the first meeting, the project team provided information about the project, generally, and about the VUMF and how it would be applied in the project specifically. In addition, prompting questions were used by the project team to elicit perspectives from meeting participants about visitor use management issues and opportunities in and desired conditions for the project area.

In the second meeting, the project team provided an update on the overall progress on the project and used a series of discussion prompts and meeting exercises to hear from the meeting participants their ideas about potential visitor use management strategies for the High Peaks Project Area. Select members of the NYSDEC/APA Core Team attended the public meetings as observers and small group facilitators and provided responses to select questions. Several members of the Stakeholder Working Group also participated in the public meetings.

[9] The Stakeholder Working Group roster is included in Appendix C.
[10] A summary of public engagement opportunities provided as part of the project is included in Appendix D.

5.3.4 Onsite Data Collection and Analysis

The project team worked in collaboration with the NYSDEC/APA Core Team to design and conduct primary data collection onsite in the High Peaks Project Area during August 2023. The study plan was informed by themes regarding visitor use management issues and opportunities in the project area that emerged from the project team's review of background information, workshop discussions with the NYSDEC/APA Core Team, and engagement with stakeholders and the public. The study plan was further informed by the project team's experience designing and conducting visitor use management studies in parks and protected areas throughout the U.S.

The purpose of the onsite data collection was to provide a data-driven basis for developing desired conditions, indicators, thresholds, user capacities, and management strategies for the High Peaks Project Area. The specific objectives were to collect data that could be summarized and analyzed to:

- Describe current conditions, with respect to vehicle traffic, parking, visitor use volumes and patterns, and crowding.
- Evaluate current conditions from onsite visitors' perspectives.
- Assess onsite visitors' attitudes about visitor use management strategies.
- Identify statistical relationships between visitor use, traffic, parking, and crowding.
- Estimate numeric user capacities.

The onsite data collection methods included automated vehicle traffic counts, trail use counts with infrared trail counters, observation-based parking counts, observation-based counts of the number of people on the summits of Mt. Marcy and Cascade Mountain, GPS-based tracking of visitor use patterns, and visitor surveys. A detailed summary of the onsite data collection effort is included in Appendix E. Results of the data collection and analysis are referenced throughout this report and were used to help inform all aspects of the project results and recommendations.

6. Desired Conditions

This section presents desired conditions statements developed by NYSDEC for the High Peaks Project Area. The section explains the basis for the desired conditions statements, presents desired conditions for the project area overall and for subregions of the project area, and lists appropriate activities and facilities in each subregion of the project area.

6.1 Basis for Desired Conditions Statements

The desired conditions presented in this section focus on visitors' experiences and public safety in the High Peaks Project Area and were developed using several sources as described in this section. Foundational legislation, agency policies, and management and planning documents that establish the project area's purpose and management direction were used to form the basis for desired conditions. These include the New York State Constitution Article XIV Section 1, the Adirondack Park State Land Master Plan, the High Peaks Wilderness Complex Unit Management Plan and Amendments, the HPAG Final Report, and the 2021 Draft Management Guidance: Visitor-Use Management and Wildlands Monitoring of Forest Preserve Lands in Adirondack Park.

Internal planning workshops described in *Section 5. Framework and Planning Process* were conducted with the NYSDEC/APA Core Team to expand on the desired conditions established in the project area's foundational legislation, agency policies, and management documents. The first NYSDEC/APA Core Team workshop was held in February 2023 and used a photo exercise to elicit themes from the NYSDEC/APA Core Team members about desired conditions in the project area.

During this workshop, NYSDEC/APA Core Team members were asked to submit photos that represented what makes the project area special (i.e., the unique characteristics of the project area) and to describe the photos during the workshop.

The second NYSDEC/APA Core Team workshop was held in May 2023, and used the following open-ended questions to further articulate desired conditions for the High Peaks Project Area:

- What should visitors experience when they visit the High Peaks Project Area?
- How should people feel and what should they take away from their experiences in the High Peaks Project Area?
- What types of opportunities should the public have to experience the High Peaks Project Area?
- What benefits should people and local communities experience from recreation in the High Peaks Project Area?

Stakeholders and the public were consulted to help develop the desired conditions statements for the High Peaks Project Area. As noted, a group discussion with stakeholders was conducted virtually in March 2023, to elicit their perceptions about concerns, needs, and opportunities for visitor use management in the project area.[11] The perceptions shared during these conversations were incorporated into the development of the desired conditions statements for the project area. The public website was launched in May 2023, and an in-person public meeting was held in Saranac Lake, New York in May 2023, to elicit perspectives from the public about desired conditions for the project area.

Meetings with the Stakeholder Working Group were conducted in person in October 2023, and March 2024, to further elicit perspectives on desired conditions for the project area. The public website, public meeting, and Stakeholder Working Group meeting used similar open-ended questions to those used during the second NYSDEC/APA Core Team workshop (listed above) to prompt further input.[12]

Information and insights from the sources noted were used by NYSDEC to develop desired conditions statements for the High Peaks Project Area to reflect its Forest Preserve status and Wilderness classification. To further reflect the spectrum of resource, visitor use, and management conditions that exist in the project area, desired conditions statements were developed for the project area, overall, as well as for four specific subregions presented in Figure 3: 1) Adirondack Loj Road Subregion; 2) Cascade/Mt. Van Hoevenberg Subregion; 3) Johns Brook Valley Subregion; and 4) Outer High Peaks Subregion.[13]

The concept for these subregions emerged during NYSDEC/APA Core Team workshop discussions based on the resource types, recreation opportunities, and desired experiences for visitors that are unique to each subregion. In addition, the desired conditions statements were developed to reflect the fact that robust partnerships with adjacent communities and partner organizations, as well as

[11] The group discussion with stakeholders was summarized in a separate synthesis document delivered to NYSDEC and shared publicly on the project website.
[12] The first question was modified for the public website to read: *What would you like to experience when you visit this area?*
[13] The High Peaks Wilderness Complex Unit Management Plan provides the foundation for managing different subregions for different users and experiences, provided the Wilderness standards established in the Adirondack Park State Land Master Plan are still met in the subregions.

ongoing coordination of management with adjacent properties providing access, are critical to achieving desired conditions for the High Peaks Project Area.

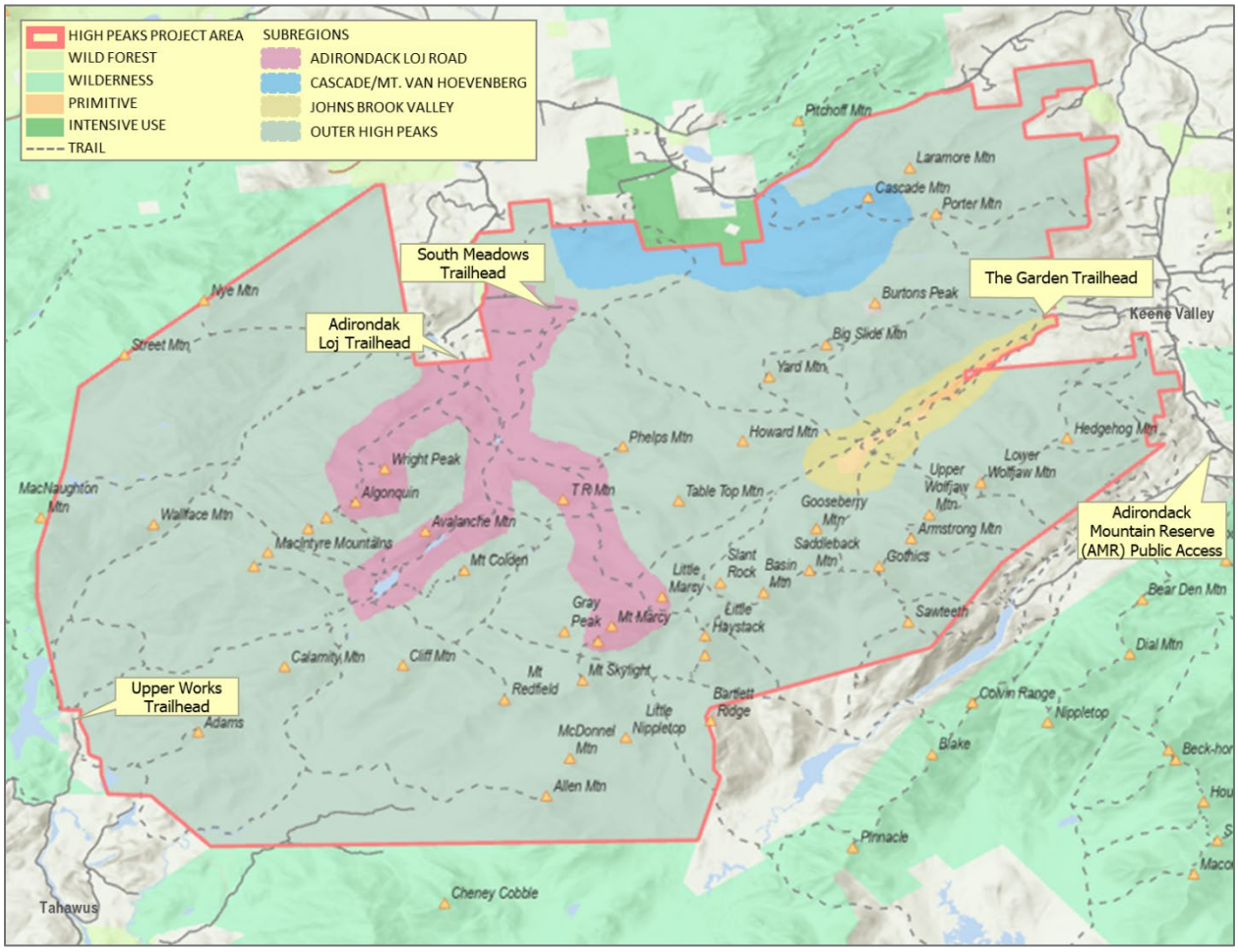


Figure 3. High Peaks Project Area Subregions.

6.2 Desired Conditions Statements

6.2.1 Overall High Peaks Project Area

The High Peaks Project Area provides high-quality visitor experiences characterized by outstanding opportunities for solitude, physical challenge, quiet contemplation, self-reflection, and autonomy. Visitors have opportunities to experience awe, inspiration, and appreciation in this rugged Wilderness setting where nature predominates, and the protection of legally mandated Wilderness values and ecological integrity is paramount. Visitors have opportunities to realize physical and mental health benefits from spending time in nature. Visitors leave this area feeling rewarded, relaxed, and rejuvenated from their experiences. Visitors experience sensory, emotional, and spiritual connections to the plants, animals, water, and landscape in the area.

The surroundings provide a space for people to appreciate the unique and natural wonders of the Wilderness landscape characterized by healthy ecosystems and minimal human impacts. The sights and sounds of nature that reflect the landscape's Wilderness character are prominent, from the vast ridgeline views to wind gusts and bird songs in the forests to star-filled night skies. Stewardship of the

High Peaks Project Area protects and restores Wilderness character for current and future generations. Visitor activities, facilities, and services are in harmony with the natural surroundings and with the enjoyment and safety of the visiting public. The opportunities, programming, and information the area offers for public use promote representation, inclusion, and access for all. All people feel welcome, which fosters in them a sense of place for the project area, a desire for making environmentally-sound recreation choices, and a deeper appreciation of and commitment to Wilderness stewardship for future generations.

The area provides a spectrum of Wilderness-oriented recreation opportunities. Visitors can enjoy high-quality experiences of the Wilderness setting for a few hours or for several days. Hiking opportunities are along sustainably aligned trails and range from challenging ascents to high-elevation summits, to shorter hikes at a slower pace with a focus on nature appreciation. While many visit this area to hike, other visitors enjoy climbing, hunting, paddling, picnicking, skiing, and other nature-based recreation opportunities. Visitors can expect to encounter others, but do not experience crowded conditions and can find solitude.

Visitors can find safe and convenient places to park their vehicles, whether that be directly onsite or offsite coupled with alternative modes of access to their destinations in the project area. They can access the area without impacting the flow of traffic on local roads, causing congestion that restricts local residents' ability to go about their daily routines, or creating potential traffic safety hazards for themselves or others.

Information and services are available and promoted to help prepare visitors to make informed decisions about how to safely access and enjoy the area according to their own experience level and to assist in minimizing resource impacts. Education and information about access points, recreation opportunities, the popularity of the area, trail difficulty and general conditions, the area's unique history, the role of stewardship, low-impact recreation, resource protection, visitor safety, and the importance of planning ahead are provided by NYSDEC and partners. This information is made available for advanced trip planning and onsite and is designed to invite and prepare visitors for a challenging but safe and memorable Wilderness experience.

Strong programs, initiatives, and a consortium of well-trained stewardship educators are also available to help visitors learn about opportunities to have positive impacts on the protection of the area and on the quality of life in the surrounding communities. These services are provided by NYSDEC and partners to support and promote inclusive access so that visitors to the project area want to and can safely return to the region.

Partner-provided facilities and services are available to visitors in select locations. These facilities and services are instrumental to helping visitors properly prepare for safe and rewarding trips into the Wilderness. They also provide visitors with a space to rest and reflect on their experiences when they return from the Wilderness. Infrastructure is otherwise purposefully minimal in the High Peaks Project Area to align with the area's Wilderness designation and character. Signage at parking areas and trailheads is provided to encourage safe and sustainable visitor use through educational and interpretive displays. Facilities, trails, and signs are designed and purposely built to align with the primitive and natural character of the project area.

Administrative personnel are periodically present to support sustainable visitor use in this area. They are largely focused on the project area's perimeter and at access points, but visitors may encounter them at interior locations as well.

Visitors are connected and engaged with partner organizations and local communities that work collaboratively with NYSDEC, NYSDOT, the Olympic Regional Development Authority, and other agencies. Strong and enduring partnerships between the state agencies and partner organizations support safe, memorable, and high-quality visitor experiences.

6.2.2 Adirondack Loj Road Subregion

The Adirondack Loj Road Subregion serves as the primary gateway for visitors to the High Peaks Wilderness Complex. It includes the most traveled trail corridors and the highest summits in the project area, including New York State's tallest mountain, Mt. Marcy. There are outstanding hiking opportunities in this area, including day-long pilgrimages to the most prominent summits in the High Peaks and adventures on lesser-traveled routes into the Wilderness landscape. The area offers opportunities for visitors to escape into the Wilderness on multi-day backpacking trips with overnight stays at lean-tos, primitive campsites, or dispersed backcountry campsites. Visitors can expect to encounter others, but do not experience crowded conditions and can find solitude. Visitors can move at their own pace while they are hiking and can find personal space along the way to and at their destinations.

Partner-provided facilities and services are available to visitors within walking distance from the trailhead and trailhead parking. These facilities and services are instrumental to helping visitors properly prepare for safe and rewarding trips into the Wilderness. They also provide visitors with a space to rest and reflect on their experiences when they return from the Wilderness. Beyond the trailhead, there are only minimal recreational facilities, and the emphasis is on opportunities for solitude, challenge, autonomy, quiet contemplation, and primitive recreation. One strategically located caretaker station remains at Lake Colden to help inform visitors about appropriate Wilderness behavior and to support visitor safety.

6.2.3 Cascade/Mt. Van Hoevenberg Subregion

The Cascade/Mt. Van Hoevenberg Subregion (referred to hereafter as the "Cascade Subregion") provides a spectrum of outstanding Wilderness hiking experiences where visitors build lasting memories that inspire future visits, stewardship, and Wilderness advocacy. The presence of administrative personnel is limited to allow visitors to practice self-reliance as they spend time in the area. The trail to Mt. Van Hoevenberg provides novice to advanced hikers with the opportunity to climb to a mountain summit in the High Peaks Wilderness Complex and the reward of mountain top views. Visitors learn from the trail itself and supporting educational information about sustainable trail design as they make their way to Mt. Van Hoevenberg's open rocky summit. Partner-provided facilities and services are available to visitors within walking distance from the trailhead and trailhead parking.

Visitors may have frequent encounters with others while hiking to and on the summit of Mt. Van Hoevenberg, but their interactions with others are positive. The route to Cascade Mountain's summit provides visitors with the opportunity for a challenging alpine hiking experience and a chance to summit one of the 46 traditionally recognized "High Peaks." Visitors experience the ruggedness and wonder of the Wilderness setting along their way to and on Cascade Mountain's summit. Visitors can expect to encounter others during their hike to and on Cascade Mountain's summit, but do not experience crowded conditions and can find solitude.

6.2.4 Johns Brook Valley Subregion

The Johns Brook Valley Subregion provides access through the Johns Brook Valley to outstanding opportunities for extended day hikes and backpacking in the High Peaks Wilderness Complex. This includes access to the Great Range and to other trails that extend deep into the remote and rugged Wilderness landscape. Backpacking in this area provides visitors with a sense of Wilderness

immersion as they journey into and camp overnight in the Wilderness landscape. The partner-provided Johns Brook Lodge offers another type of opportunity for overnight stays in the High Peaks Wilderness Complex. Here too visitors can experience primitive and unconfined recreation and a sense of connection to nature while camping or lodging in the remote and rugged Wilderness setting.

Opportunities to experience solitude in the Johns Brook Lodge area itself are limited, but visitors are able to enjoy their personal space. Beyond the Johns Brook Valley, recreational facilities are limited to trails and minimal, primitive signage to encourage opportunities for challenge, autonomy, and rugged recreation.

6.2.5 Outer High Peaks Subregion

The Outer High Peaks Subregion provides visitors with opportunities to venture further away from primary gateways and popular trail corridors. Visitors experience in this remote and wild landscape a deep sense of immersion in the Wilderness environment. Visitors have outstanding opportunities for extended experiences of solitude and to be surrounded by the sights and sounds of nature. Hiking and backpacking in this remote and rugged landscape provide visitors with a high degree of challenge, a strong sense of self-reliance, and feelings of respect and appreciation for the powers of nature. Signs are kept to a minimum to harmonize with the Wilderness setting and the presence of administrative personnel is limited to encourage self-reliance.

Trail-less opportunities exist to further enhance opportunities for visitors to experience primitive and unconfined recreation. These trail-less opportunities are intentionally located where they minimize impacts to the ecological integrity of the High Peaks.

6.3 Activities and Facilities

In conjunction with the process to develop desired conditions statements, NYSDEC identified recreation activities and facilities that are appropriate in the High Peaks Project Area. These are listed in Table 1.

Table 1. Appropriate activities and facilities and improvements in the High Peaks Project Area.

Activities	Facilities and improvements
Any Wilderness-dependent, non-motorized activity, including but not limited to: • Backpacking • Birding • Camping in designated campsites • Day hiking • Dispersed camping • Fishing • Horseback riding in select areas • Hunting • Ice climbing • Nature study • Photography • Rock climbing • Skiing • Swimming • Trapping	• Adjacent parking lots • Barriers • Bridges • Informational and directional signage • Interior ranger station • Kiosks with trail registers and signage • Lean-tos • Pit privies • Portable toilets (in adjacent parking lots) • Primitive tent sites • Trail network

7. Indicators and Thresholds

This section presents the indicators and thresholds selected by NYSDEC to monitor and adaptively manage visitor use in the High Peaks Project Area according to desired conditions. The section explains the basis for the selected indicators and thresholds, presents the selected indicators and thresholds, and provides a summary table of them for quick reference. The monitoring plan for the High Peaks Project Area presents guidance and tools for long-term monitoring of the selected indicators (see *Section 10. Monitoring Plan*).

7.1 Basis for Indicators and Thresholds

Several sources were used to develop the indicators and thresholds selected by NYSDEC for long-term monitoring and adaptive management of visitor use in the High Peaks Project Area. These sources include foundational legislation, agency policies, and management documents for the High Peaks; results from internal planning workshops conducted with the NYSDEC/APA Core Team; insights from the Stakeholder Working Group; results from an onsite survey of visitors to the project area; input from the public; and guidance documents from the IVUMC. In the process to evaluate and ultimately select indicators for the High Peaks Project Area, NYSDEC considered the following questions based on the IVUMC's definition of and criteria for indicators:

- Is the indicator a valid and measurable proxy for a key component(s) of the desired conditions expressed for visitors' experiences and/or public safety in the project area?
- Would the indicator be effective at tracking changes in key characteristics of visitors' experiences and/or public safety that are specifically associated with recreation use?
- Does the indicator provide a systematic basis to assess progress towards achieving and maintaining desired conditions for visitors' experiences and/or public safety in the project area?
- Is the indicator relatively easy to measure reliably? Related, is it administratively and financially feasible for NYSDEC to commit to monitoring this indicator on an ongoing basis?
- Is the condition of the indicator likely to be responsive to/change as a function of visitor use management actions?
- Is the indicator directly related to the amounts of recreation use in the project area (not necessary for a good indicator, but required for an indicator used as a basis to estimate numeric user capacities)?

Thresholds were specified by NYSDEC for each selected indicator to reflect the limits of acceptable recreation use-related change beyond which desired conditions for the project area are not being met. The thresholds are ultimately management judgments made by NYSDEC. These judgments were informed by input from the public, meetings with the Stakeholder Working Group, results of the onsite data collection conducted as part of this project, and relevant laws, policies, and management guidance.

Ultimately, NYSDEC judged that the thresholds specified for each indicator strike the best balance possible among several critical factors, including the quality and character of visitors' experiences, the practical feasibility of managing use to achieve desired conditions, and a commitment to provide safe, equitable, and inclusive access to the High Peaks Project Area.

7.2 Selected Indicators and Thresholds

Using the criteria and considering the sources of input noted, NYSDEC selected the following indicators for long-term monitoring and adaptive management of visitor use in the High Peaks Project Area:[14]

- People-per-viewscape (PPV) on select mountain summits
- Intergroup encounters per hour while hiking on trails in the project area
- Vehicles-at-one-time (VAOT) in select parking lots, roadsides, and adjacent overflow areas

This section provides a description of each indicator, specifies thresholds for each indicator, and explains the basis and rationale for the indicators and thresholds selected by NYSDEC. As noted, the monitoring plan for the High Peaks Project Area provides guidance and tools for long-term monitoring of the selected indicators (see *Section 10. Monitoring Plan*).

7.2.1 Indicator: People-Per-Viewscape on Select Mountain Summits

Description: The PPV indicator will be used to measure and monitor the number of people present in select and representative viewscapes on select mountain summits. The indicator provides a basis to assess crowding on these mountain summits and corresponding impacts to the quality of visitors' experiences and crowding-related risks to public safety. The viewscapes depicted in Figure 4 and Figure 5 were used for PPV counts on the Mt. Marcy and Cascade Mountain summits, respectively, and for crowding-related questions in the visitor surveys administered onsite during the summer 2023 data collection. These viewscapes will be used by NYSDEC to monitor PPV on the summits of Mt. Marcy and Cascade Mountain, respectively.

The area depicted in Figure 6 approximates the viewscape used for PPV counts on the Algonquin Peak summit during a summer 2021 visitor use study funded by the Adirondack Council. A viewscape like this will be selected by NYSDEC to monitor PPV on the Algonquin Peak summit.[15] It is important to note that these viewscapes do not include all people who may be present on the corresponding summit, just those people in the specific area of the summit depicted in the selected viewscapes. If it is administratively and financially feasible, NYSDEC will monitor PPV on other mountain summits in the project area. This would provide a basis to track potential displacement and related changes in visitor use patterns and impacts that may occur as a result of visitor use management strategies and/or other factors.

[14] Appendix F reports ideas that were mentioned as potential indicators during meetings with the NYSDEC/APA Core Team, the Stakeholder Working Group, and/or the public but not selected for adoption by NYSDEC.
[15] Results of the 2021 study suggest the summit viewscape depicted in Figure 6 may not adequately capture visitor use and crowding conditions on the Algonquin Peak summit. Site scoping by NYSDEC is needed to test this and other viewscapes on the Algonquin Peak summit before adopting one for formal monitoring.

Figure 4. Viewscape for monitoring PPV on Mt. Marcy summit.

Figure 5. Viewscape for monitoring PPV on Cascade Mountain summit.

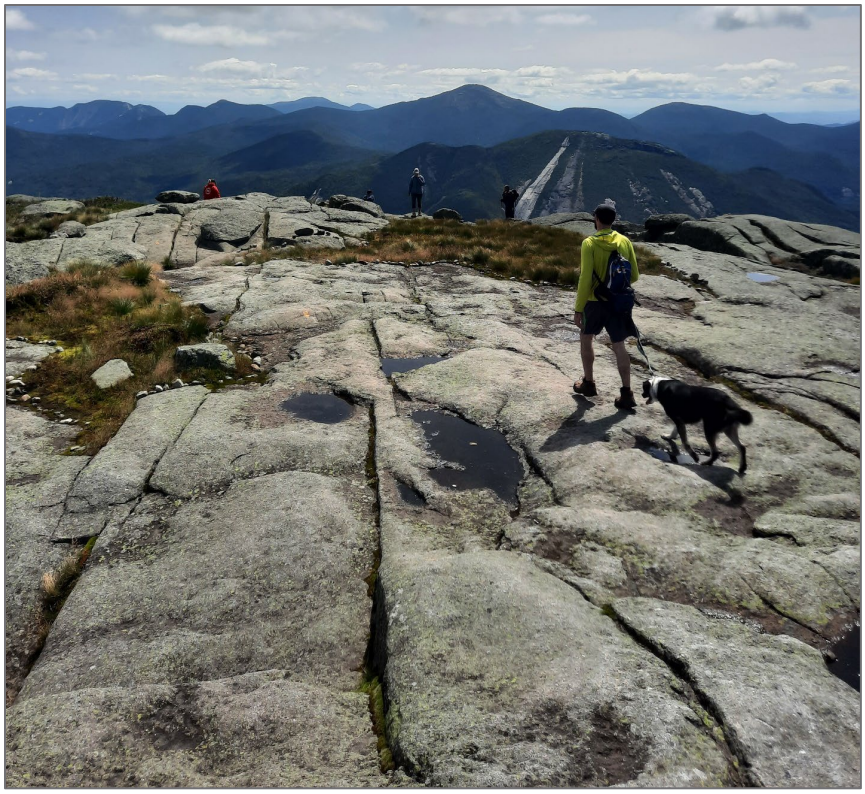


Figure 6. Viewscape for monitoring PPV on Algonquin Peak summit.

Threshold: The threshold for PPV on each of the Mt. Marcy, Algonquin Peak, and Cascade Mountain summits is as follows:

There will be fewer than 10 PPV in the summit viewscape 90% of sampled time.

This threshold may need to be adjusted for monitoring PPV on other mountain summits to account for differences in the size of the viewscape area being monitored and other situational and managerial factors.

Rationale: The High Peaks Project Area's Wilderness designation mandates that the area be managed to provide opportunities for solitude (State of New York, 2019). This does not necessarily mean that opportunities for solitude must be provided everywhere, all the time. However, it does mean that there should be times and places where those who seek it can find solitude. It also suggests that while opportunities for solitude might not be reasonable or even preferable to expect everywhere, all the time, it is reasonable to expect that visitors generally won't experience crowding in the project area's Wilderness landscape.

Crowding differs from solitude in that it is a negative reaction to the number of people in a space that can cause people to experience stress (Stokols, 1972; Lepore, 2012). Crowding has been documented to adversely affect the quality of visitors' experiences in public lands recreation areas and to cause visitors to adopt crowding avoidance behaviors that can cause resource impacts and potential public safety issues (e.g., off-trail travel, per National Park Service, 2023).

A history of concern about intensive visitor use levels and crowding impacts in the High Peaks Project Area has been recorded in official planning and management reports, stakeholder advisory

reports, and popular media. In addition, crowding was identified as a primary issue of concern in the High Peaks Project Area by members of the public, the Stakeholder Working Group, and the NYSDEC/APA Core Team.

Findings from the onsite visitor survey administered at the Adirondak Loj and Cascade Mountain trailheads during summer 2023 suggest PPV on mountain summits is a good indicator of crowding and the quality of visitors' experiences, as follows:

- For most visitors surveyed at the Adirondak Loj and Cascade Mountain trailheads, finding a private spot to enjoy when they reach a mountain summit is important to them (63% and 60%, respectively). In addition, a substantial share of them said views from mountain summits aren't as good when other people are present (42% and 32%, respectively).
- Visitors who were surveyed at the Adirondack Loj trailhead were asked to look at a series of photo simulations with varying numbers of people in the viewscape depicted in Figure 4. One-quarter (25%) of visitors said they would feel crowded when there are nine people in the viewscape, and more than half (57%) said they would feel crowded when there were 12 people in the viewscape (Figure 7). An increasing majority of surveyed visitors said they would feel crowded when there were 15 or more people in the viewscape (62% to 100%; Figure 7). Members of the Stakeholder Working Group were even more likely to report feeling crowded by these conditions than visitors who completed the survey onsite (Figure 8). These results suggest too many people (PPV) on the Mt. Marcy summit makes visitors feel crowded. Results from the survey of visitors at the Cascade Mountain trailhead about PPV on the Cascade Mountain summit were similar (Figure 9).

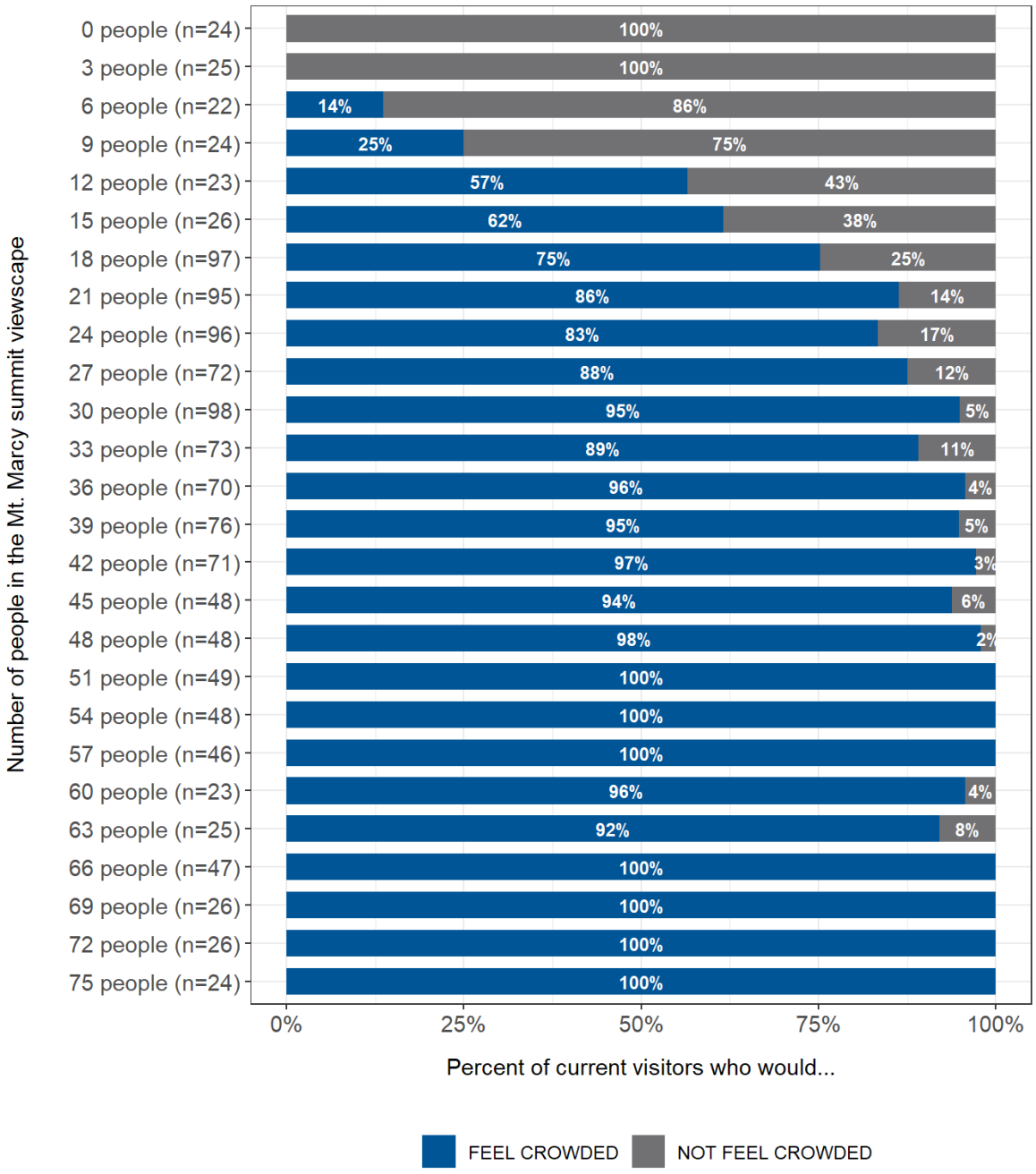


Figure 7. Summary of crowding responses of visitors to photo simulations of PPV in the Mt. Marcy summit viewscape, by the number of people depicted in the viewscape.

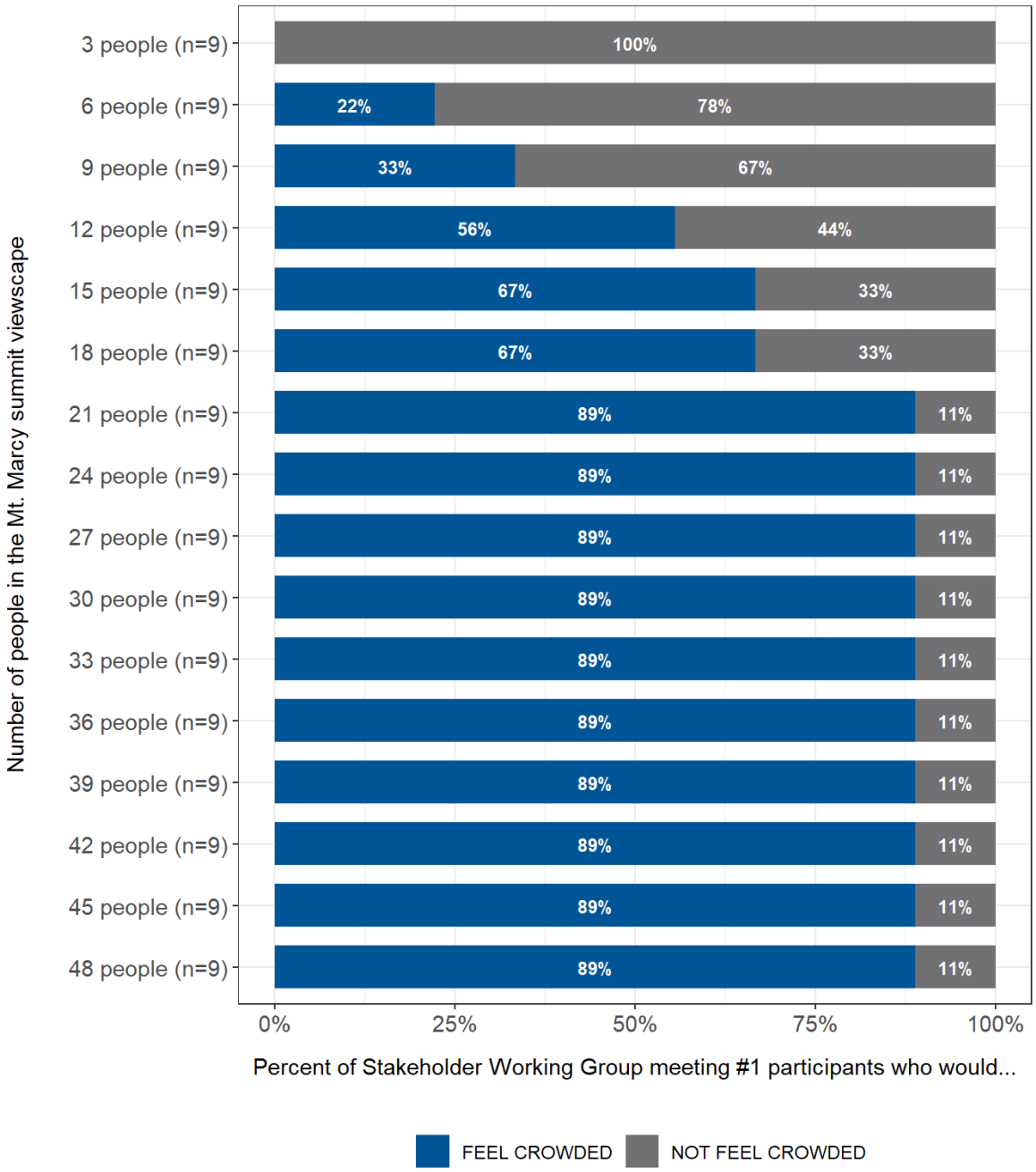


Figure 8. Summary of crowding responses of members of the Stakeholder Working Group to photo simulations of PPV in the Mt. Marcy summit viewscape, by the number of people depicted in the viewscape.

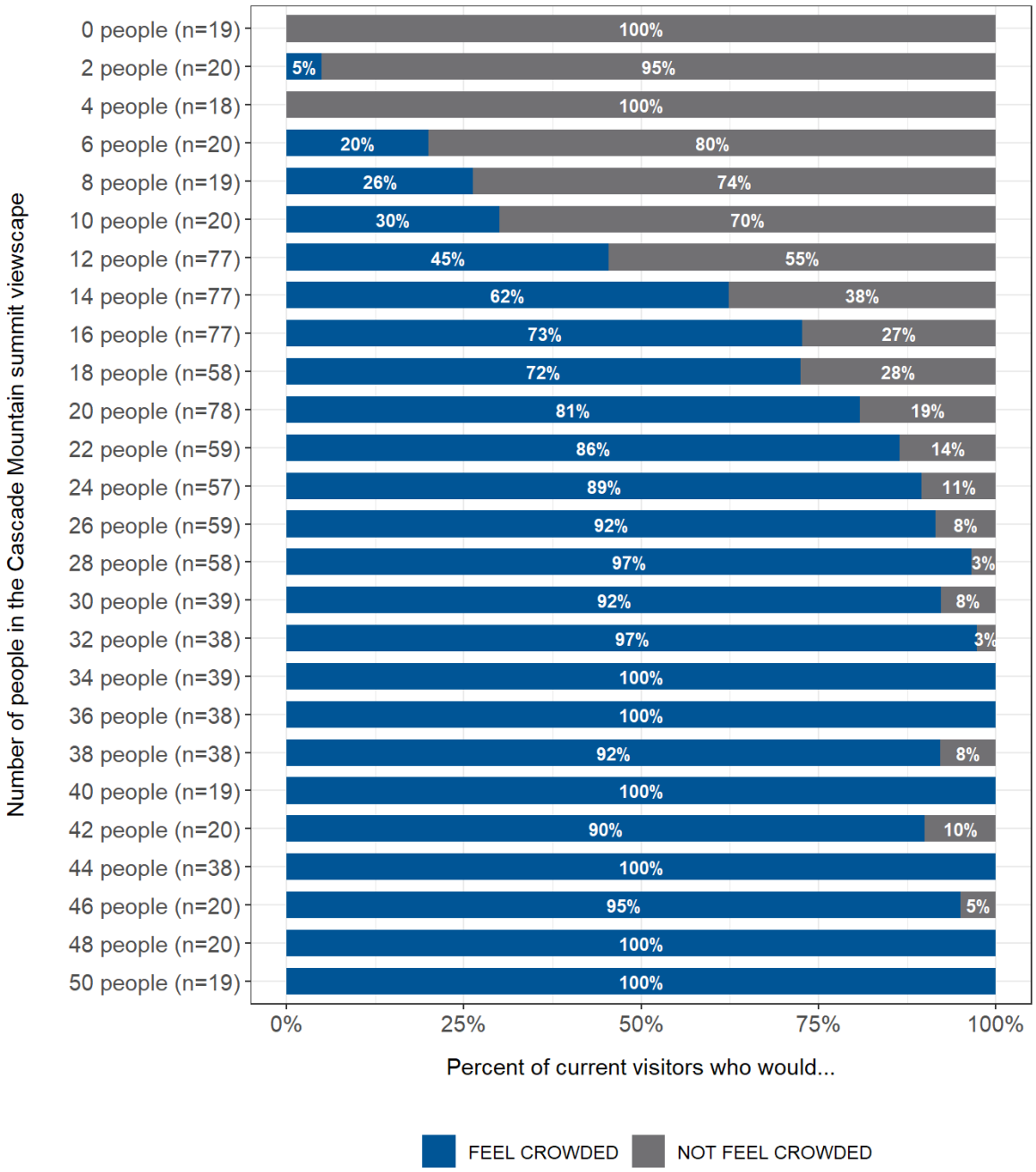


Figure 9. Summary of crowding responses of visitors to photo simulations of PPV in the Cascade Mountain summit viewscape, by the number of people depicted in the viewscape.

7.2.2 Indicator: Intergroup Encounters Per Hour While Hiking on Trails in the Project Area

Description: This indicator will be used to measure and monitor the number of encounters visitors have with other groups per hour while hiking on trails in the High Peaks Project Area. The indicator provides a basis to assess important aspects of the quality, character, and diversity of visitors' experiences in the High Peaks Project Area, ranging from opportunities to experience solitude, to the freedom for visitors to move at their own pace, to the ability of visitors to enjoy the High Peaks Wilderness Complex without feeling crowded. To manage for a diversity of high-quality experiences in the High Peaks Project Area, NYSDEC will monitor intergroup encounters per hour on trails that range from popular routes to primary destinations (e.g., summits of the 46 traditionally recognized "High Peaks," popular lakes, etc.) to remote, low-use trails and that span the Wilderness landscape.

Intergroup encounters were monitored on the trail sections depicted in Figure 10 as part of a visitor use study in 2021 funded by the Adirondack Council and will be monitored on these popular trail sections by NYSDEC. A sample of other candidate locations for NYSDEC to monitor intergroup encounters that span a range of trail types are listed below in Table 2 and depicted in Figure 11.

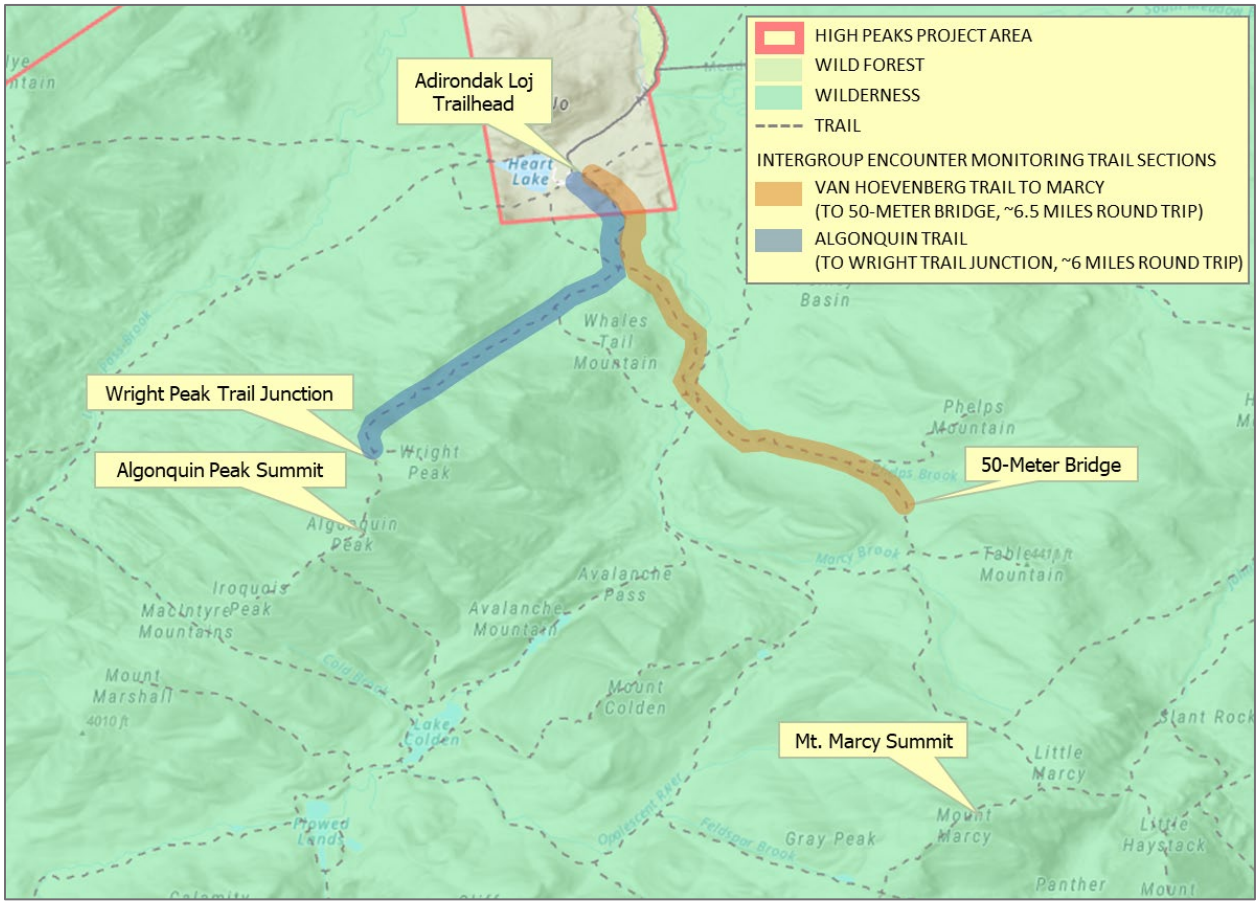


Figure 10. Selected trail sections for monitoring intergroup encounters per hour while hiking on destination-oriented trails.

Table 2. Sample of other candidate trail sections for monitoring intergroup encounters per hour, by trail type.

Trail type	Candidate trail sections
Destination-oriented trails	Phelps Trail (The Garden trailhead to Johns Brook Lodge) Calamity Brook Trail (Upper Works trailhead to Lake Colden) Street and Nye Trail (trail to both summits from the Indian Pass from Heart Lake Trail)
Other trails	Indian Pass (Upper Works trailhead to Cold Brook Trail junction)

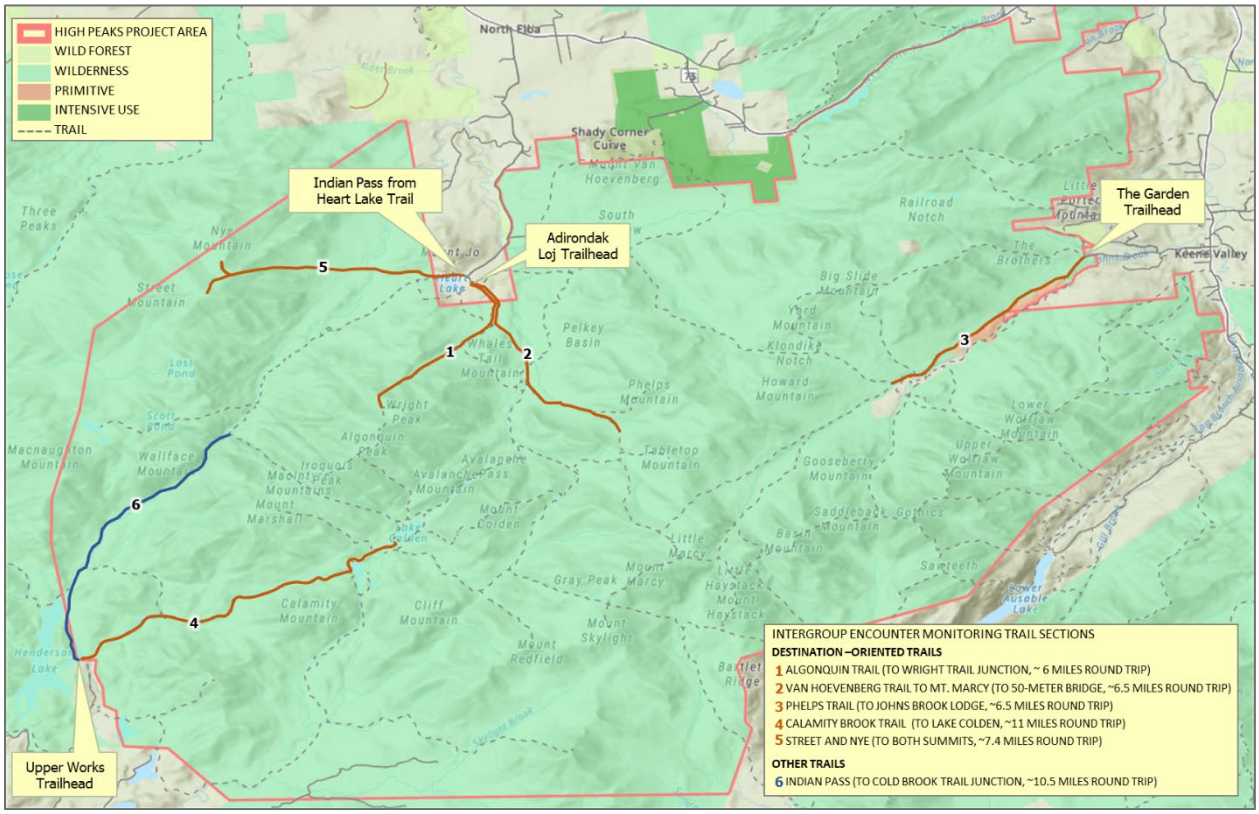


Figure 11. Map of selected and sample of other candidate trail sections for monitoring intergroup encounters per hour, by trail type.

Thresholds: Thresholds for intergroup encounters per hour while hiking vary by trail type, as summarized in Table 3.

Table 3. Threshold for intergroup encounters per hour while hiking, by trail type.

Trail type	Threshold
Destination-oriented trails	*Visitors will have fewer than 6 to 9 intergroup encounters per hour while hiking on destination-oriented trails on 90% of sampled hikes.*[16]
Other trails	*Visitors will have fewer than 2 intergroup encounter per hour while hiking on other trails on 90% of sampled hikes.*

[16] Specific threshold will depend on the selected trails for monitoring.

Rationale: There is substantial precedent for using encounter rates as an indicator of the quality and character of visitors' experiences in trail-based, natural resource recreation settings like the High Peaks Project Area (IVUMC, 2019; National Park Service, 2023). Moreover, visitors who were surveyed at the Adirondak Loj and Cascade Mountain trailheads for this project think it is important to have opportunities to hike without seeing others for at least some of the time while they are hiking (71% and 62%, respectively). Similarly, a substantial share of them find that having to pass or be passed by others while hiking makes their hike less enjoyable (51% and 40%, respectively).

No data were collected as part of this project to help provide a basis for establishing thresholds for intergroup encounter rates on trails in the project area. Instead, thresholds for intergroup encounters per hour were adapted from existing sources, including 2021 Draft Management Guidance for Forest Preserve Lands in the Adirondack Park prepared by NYSDEC and the APA, and the 2015 Sequoia and Kings Canyon National Parks Wilderness Stewardship Plan (Table 4). Related, best practices in outdoor recreation management include providing a diversity of recreation opportunities. Consistent with this practice, NYSDEC specified a range of thresholds that vary by trail type and source, as summarized in Table 3.

Table 4. Summary of sources and source thresholds for intergroup encounters thresholds, by trail type.

Trail type	Source for threshold	Source trail/setting classification	Source threshold
Primary destination-oriented trails	2015 Sequoia and Kings Canyon National Parks Wilderness Stewardship Plan/FEIS	High use trails[17]	Visitors will have fewer than 9 intergroup encounters per hour
Secondary destination-oriented trails	2015 Sequoia and Kings Canyon National Parks Wilderness Stewardship Plan/FEIS	Moderate use trails[17]	Visitors will have fewer than 6 intergroup encounters per hour
Other trails	NYSDEC and APA 2021 Draft Management Guidance for Forest Preserve Lands in the Adirondack Park	Wilderness	90% of visitors will have fewer than 2 intergroup encounters per hour[18]

[17] Source thresholds were converted from encounters with people to encounters with groups by assuming an average group size of 3 people.
[18] Source threshold was converted from intergroup encounters *per day* to intergroup encounters *per hour* by assuming an average hiking duration of eight hours per day.

7.2.3 Indicator: Vehicles-At-One-Time in Select Parking Lots, Adjacent Overflow Areas, and Roadsides

Description: The VAOT indicator will be used to measure and monitor the number of vehicles parked in select parking lots and adjacent overflow areas and on roadsides. The indicator provides a basis to assess parking conditions and corresponding impacts to traffic flow, traffic and pedestrian safety, visitor access, and the quality of visitors' experiences. For this indicator, NYSDEC will monitor VAOT in the locations listed below and depicted in Figure 12:

- Adirondak Loj parking lot and adjacent overflow areas
- Meadows Lane parking lots and adjacent overflow areas
- Adirondack Loj Road roadside
- Meadows Lane roadside

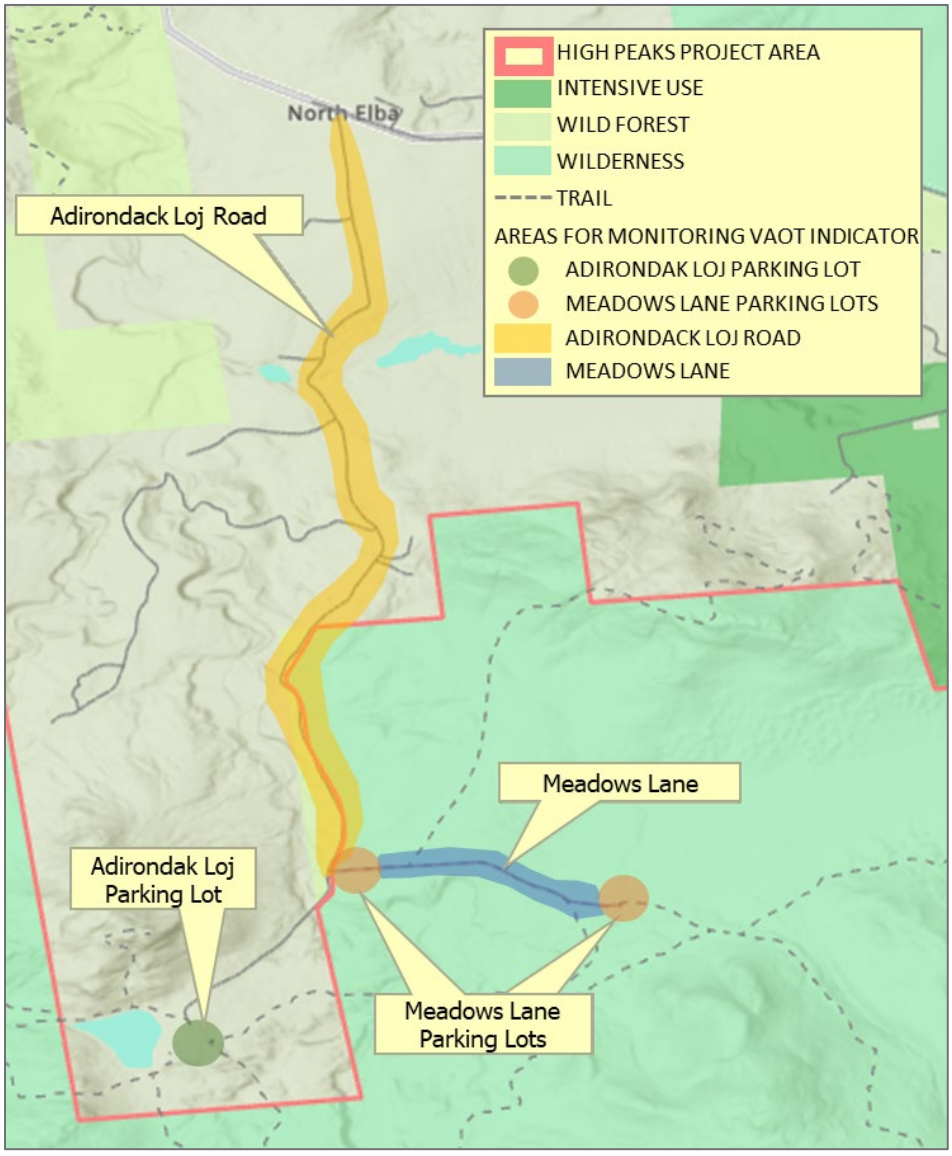


Figure 12. Selected locations for monitoring VAOT.

Threshold: The thresholds for VAOT vary by location, as summarized in Table 5.

Table 5. Threshold for VAOT, by location.

Monitoring location	Threshold
Parking lots and adjacent overflow areas	*The maximum daily VAOT at each monitoring location will be no greater than the design capacity of the parking lot in that location 99% of sampled days.*
Roadsides	*No vehicles will be parked on roadsides 99% of sampled days.*

Rationale: Key findings from engagement with the Stakeholder Working Group, NYSDEC/APA Core Team, and public and from onsite data collection during summer 2023 suggest that during summer weekend days and holidays, parking pressure in the High Peaks Project Area, generally, and the Adirondack Loj Road Subregion, specifically, is intense. Concern about parking pressure in the Adirondack Loj Road Subregion was reinforced by findings from parking data collection conducted during summer 2023 as part of this project and by data provided by the ADK. The Adirondak Loj parking lot provides the single largest formally designated parking for visitors to access the Adirondack Loj Road Subregion, and in summer 2023:

- The designated capacity of the Adirondak Loj parking lot was reached or exceeded on two-thirds (64%) of all weekend days and holidays during the period from June 1 through October 31, 2023 (ADK, 2023).
- In every sampling hour of all but one weekend day during the onsite data collection for this project, parking demand exceeded the designated parking capacity at the Adirondak Loj of 180 spaces.

When the parking lot at the Adirondak Loj is full, visitors seeking access to the Adirondack Loj Road Subregion will park on the roadside along Adirondack Loj Road and in informal parking spots on Meadows Lane. When these parking conditions occur, traffic circulation at the Adirondak Loj, on Adirondack Loj Road, and on Meadows Lane becomes congested. This traffic congestion impacts emergency vehicle access, causes visitors to experience stress and confusion, increases public safety risks due to pedestrians walking in or along roadways with moving traffic to access trailheads, and places undue pressure on agency staff, partner organizations, and local officials.

At The Garden, onsite staff manage parking to the 50-space designated capacity of the parking lot there, and there is no roadside parking or parking in unendorsed overflow areas in the project area itself. During busy summer days, there can be significant overflow parking for access to The Garden trailhead and associated traffic congestion in Keene Valley. For the trail to Cascade Mountain, plans are in place to relocate parking off State Route 73 to Mt. Van Hoevenberg at the Olympic Sports Complex. For these reasons, parking lots in these areas are not included among those in the project area that will be monitored by NYSDEC. When parking for the trail to Cascade Mountain is relocated, NYSDEC will assess the feasibility of monitoring the parking lot at that time.

7.3 Summary of Selected Indicators and Thresholds

Table 6 presents a summary of the indicators and thresholds selected by NYSDEC to guide long-term monitoring and adaptive management of visitor use in the High Peaks Project Area. As noted, Appendix F reports ideas that were mentioned as potential indicators during meetings with the NYSDEC/APA Core Team, the Stakeholder Working Group, and/or the public, but not selected for

adoption by NYSDEC. The monitoring plan for the High Peaks Project Area provides guidance and tools for long-term monitoring of the selected indicators (see *Section 10. Monitoring Plan*).

Table 6. Summary of selected indicators and thresholds for the High Peaks Project Area.

Indicator	Threshold
PPV on the summits of Mt. Marcy, Cascade Mountain, and Algonquin Peak	There will be fewer than 10 PPV in the designated summit viewscape 90% of sampled times.
Intergroup encounters per hour while hiking on trails in the project area	**Destination-oriented trails:** Visitors will have fewer than 6 to 9 intergroup encounters per hour while hiking on destination-oriented trails on 90% of sampled hikes.[19] **Other trails:** Visitors will have fewer than 2 intergroup encounters per hour while hiking on other trails on 90% of sampled hikes.
VAOT in select parking lots, adjacent overflow areas roadsides, and roadsides	**Parking lots and adjacent overflow areas:** The maximum daily VAOT at each monitoring location will be no greater than the design capacity of the parking lot in that location 99% of sampled days. **Roadsides:** No vehicles will be parked on roadsides 99% of sampled times.

8. Current Visitor Use, Impacts, and Capacities

This section presents findings from the data collection, analysis, and engagement components of the project about current visitor use and impacts in the High Peaks Project Area. The information provides a basis to assess gaps between current conditions and desired conditions for the project area. The section also presents methods and results to estimate user capacities for the project area. These include estimates of the number of visitors to each of the Adirondack Loj Subregion and Cascade Subregion of the project area who can be accommodated per day without exceeding thresholds for summit crowding (PPV) and parking (VAOT) indicators. It also includes estimates of the number of visitors who can be accommodated per day in the Adirondak Loj Subregion without exceeding thresholds for trail crowding (intergroup encounters per hour).

8.1 Current Visitor Use and Impacts

Key findings from data collection, analysis and engagement about visitor use and impacts in the High Peaks Project Area are summarized below.

1. **Visitor use in the High Peaks Project Area is concentrated on weekend days and holidays during the summer peak season. Visitor use is more moderate on weekdays.[20]**

    - In the Adirondack Loj Road Subregion, there was an average of 257 visitors per day originating from South Meadows and the Adirondak Loj trailhead on weekdays during the period from June 30 through September 4, 2023. Use on weekend days and

[19] Specific threshold will depend on the selected trails for monitoring.
[20] Visitor use in the Adirondack Loj Road Subregion was recorded at the Adirondak Loj and South Meadows trailheads. Visitor use in the Cascade Subregion was recorded at the Cascade Mountain trailhead. Visitor use in the Johns Brook Valley Subregion was recorded at The Garden trailhead.

holidays during the same period was nearly double that of weekdays, with an average of approximately 445 visitors per day (Figure 13).

- In the Cascade Subregion, there was an average of 147 visitors per day on weekdays, compared to an average of 219 visitors per day on weekend days and holidays (Figure 14).
- In the Johns Brook Valley Subregion, there was an average of 58 visitors per day on weekdays, compared to an average of 79 visitors per day on weekend days and holidays (Figure 15).
- Visitor use from the Upper Works trailhead on the Calamity Brook Trail averaged 24 visitors per day on weekdays, compared to an average of 42 visitors per day on weekend days and holidays (Figure 16).

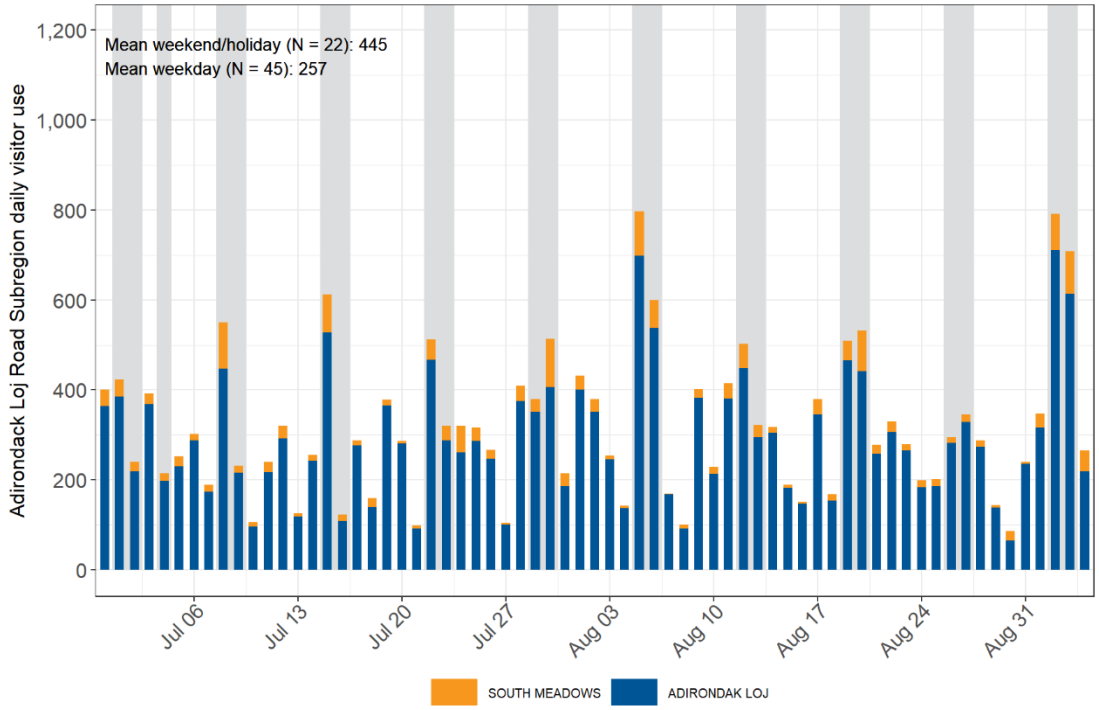


Figure 13. Daily visitor use in the Adirondack Loj Road Subregion during summer 2023, by point of access.

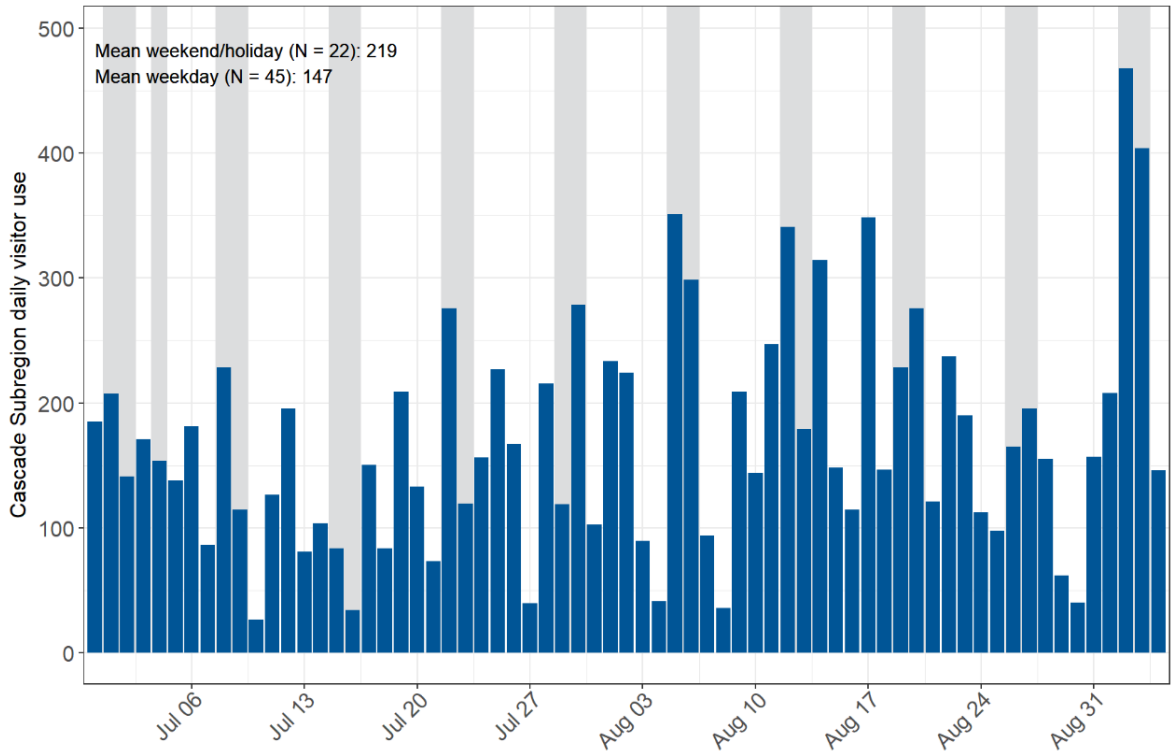


Figure 14. Daily visitor use in the Cascade Subregion during summer 2023.

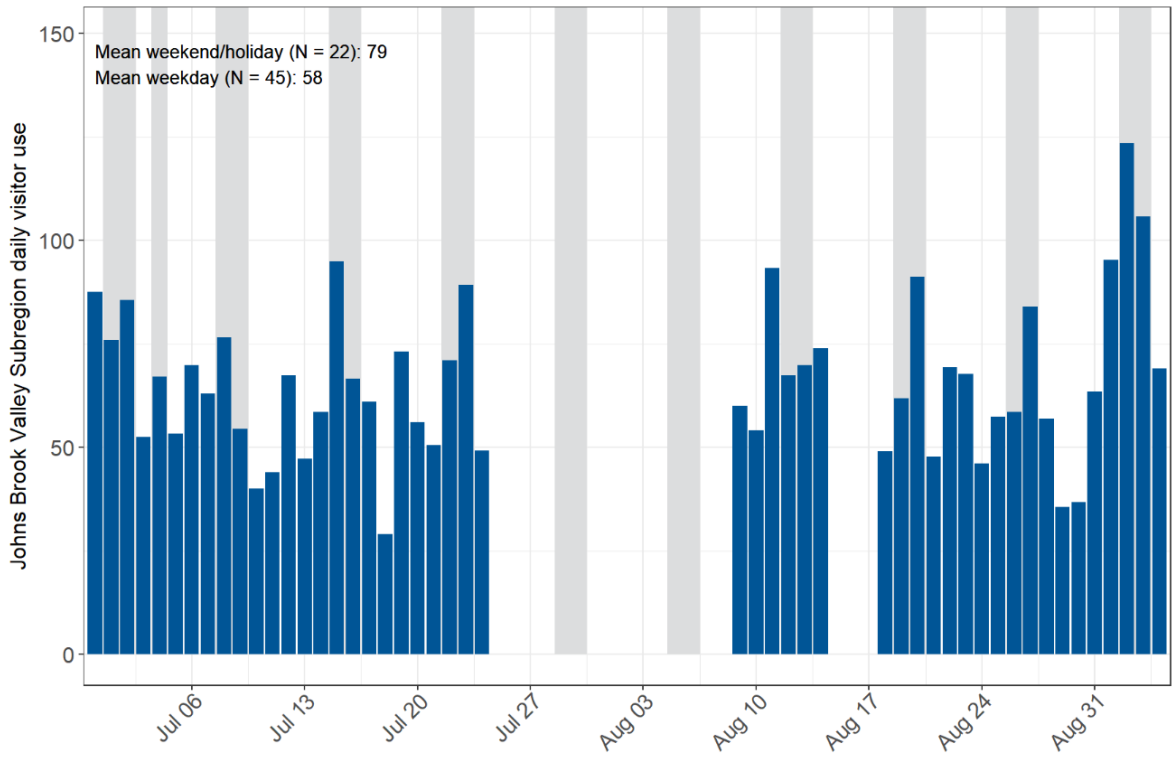


Figure 15. Daily visitor use in the Johns Brook Valley Subregion during summer 2023.[21]

[21] Missing data are due to trail counter equipment malfunction.

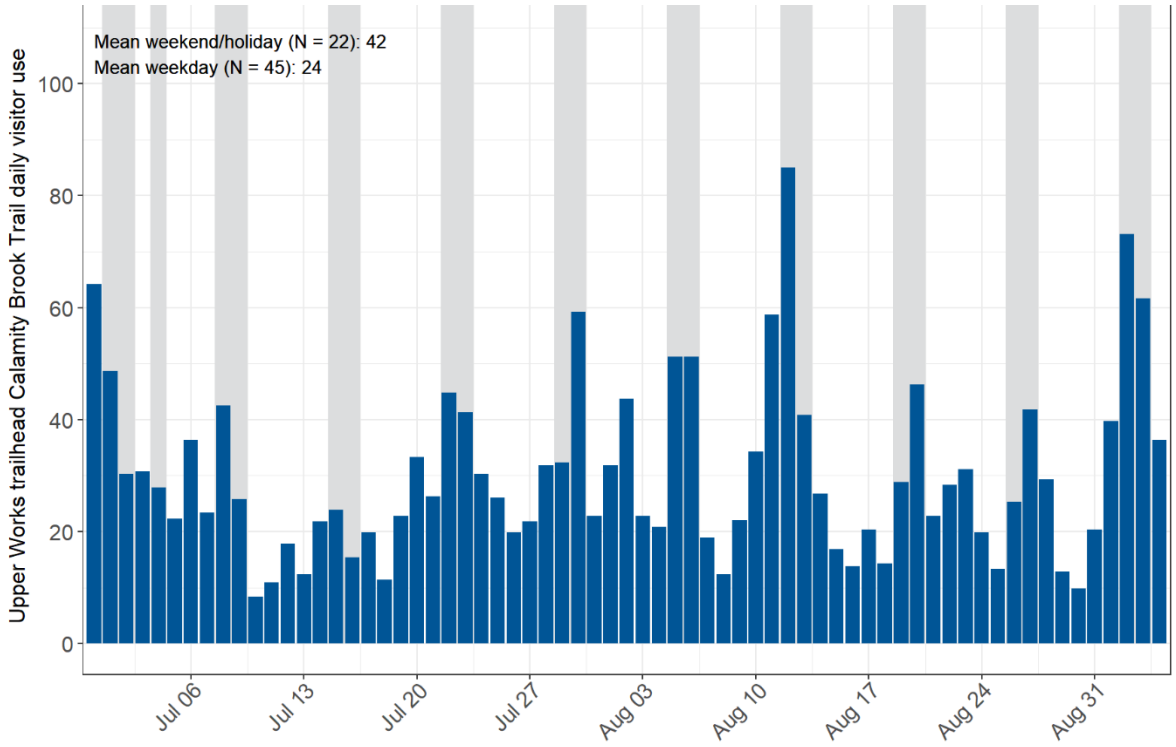


Figure 16. Daily visitor use from the Upper Works trailhead on the Calamity Brook Trail during summer 2023.

2. **Parking pressure for access to the High Peaks Project Area is intense during the summer season and is particularly problematic on weekend days and holidays. This makes it difficult for visitors to find safe and convenient places to park.**

   - The Adirondak Loj parking lot provides the closest point of access for the most popular hiking and backpacking opportunities in the Adirondack Loj Road Subregion and functions as the primary source of designated parking for visitors. It provides safe, convenient, and universal access to the project area. Yet, on weekends during the peak summer season, it is difficult to find parking there. When the lot is full, visitors park on the roadside of Adirondack Loj Road or Meadows Lane and then walk alongside moving traffic to the trailhead.
   - Discussions with members of the NYSDEC/APA Core Team and Stakeholder Working Group suggest that on busy summer days it is common for parking demand to exceed the parking capacity of 180 spaces at the Adirondak Loj by early in the morning. They reported having observed a shift over time too, to this occurring even earlier in the morning as visitors have come to realize the competition that exists there for parking.
   - According to data provided by the Adirondack Mountain Club, the Adirondak Loj parking lot was full about one-quarter of weekdays (27%) and nearly two-thirds (64%) of weekend days and holidays during the period from June 30 through October 31, 2023.
   - On five of the six weekend days during the 2023 data collection period for this project, the Adirondak Loj was already full when data collection started at 8:00 a.m. and as many as approximately 100 vehicles were parked 1) along Adirondack Loj Road; 2) along Meadows Lane; or in the parking lot at Meadows Lane (Figure 17). Parking conditions

remained this way throughout each of these days and roadside parking reached a maximum of approximately 165 vehicles. The one weekend day during the data collection period when these conditions did not occur was a foul-weather day.

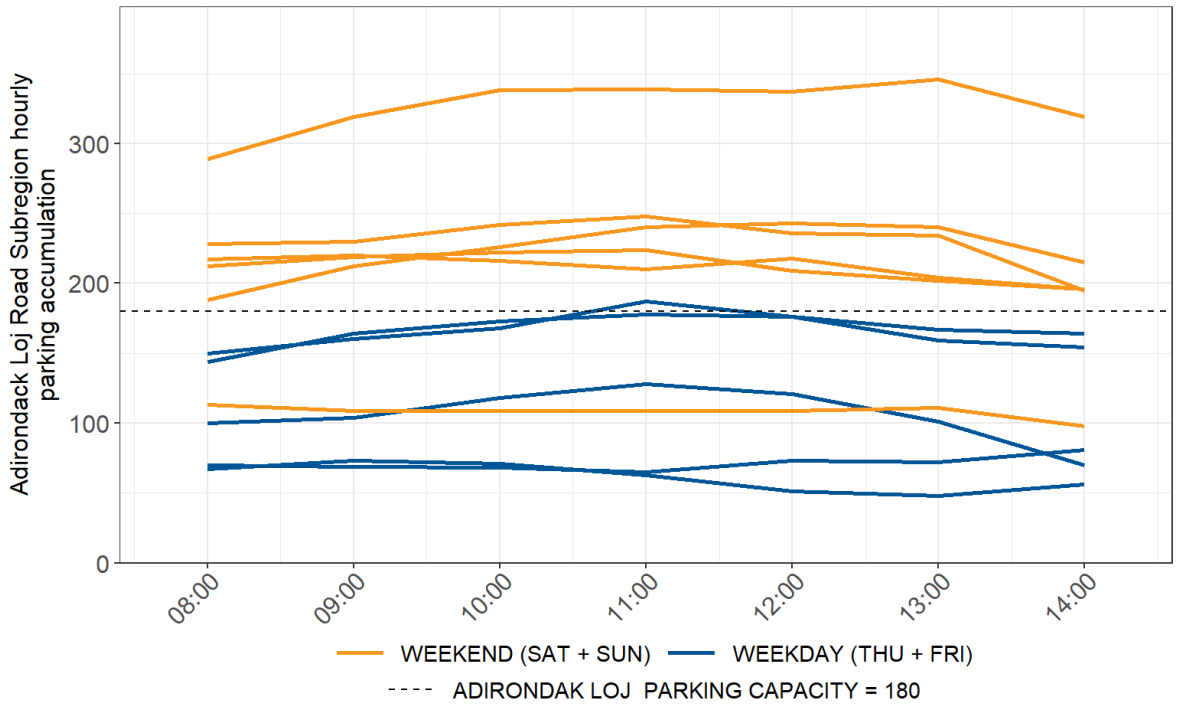


Figure 17. Hourly parking accumulation for access to the Adirondack Loj Road Subregion of the project area, by data collection date and day of week category. [22]

- In the Cascade Subregion, there are 42 designated parking spaces; when those are full, visitors park on the roadside along State Route 73 to access the project area. Visitors who park on the roadside then walk on the shoulder to the trailhead with vehicles passing them at the posted speed limit of 55 m.p.h. and higher speeds.
- On all but one day during the 2023 data collection period, parking demand exceeded the designated parking capacity and vehicles were parked along the State Route 73 roadside. On most of these days, visitor parking overflowed onto the roadside during the morning hours and continued to build throughout the day. Roadside parking reached a maximum of 93 vehicles, which is more than double the number of designated parking spaces (Figure 18).

[22] Each line in the plot represents a single sampling day during the data collection period.

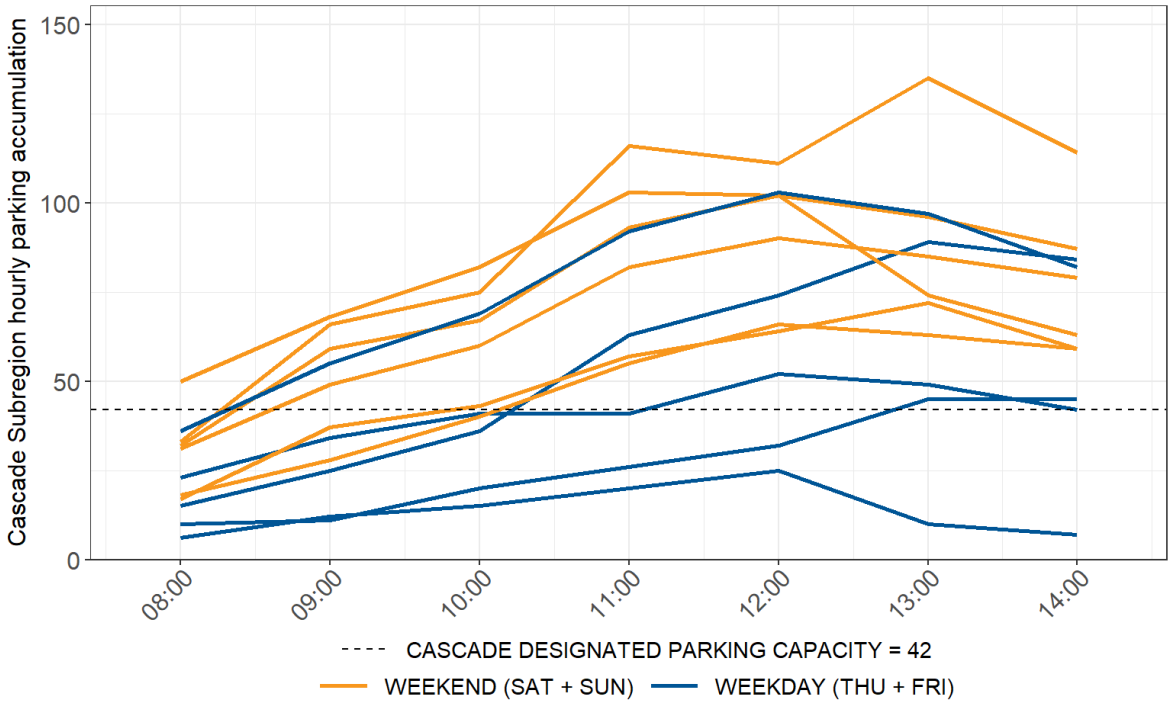


Figure 18. Hourly parking accumulation for access to the Cascade Subregion of the project area, by data collection date and day of week category. [23, 24]

- On the majority of days when parking data were collected, The Garden parking lot was full or nearly full when data collection started at 8:00 a.m. and remained that way to when data collection ended at 2:00 p.m. (Figure 19). No vehicles were observed parked along the adjacent roadside on Johns Brook Lane at any time during the data collection period.

[23] Each line in the plot represents a single sampling day during the data collection period.
[24] As noted, daily visitor use in the Cascade Subregion is substantially higher than weekday use, on average. This pattern was not consistent during the parking data collection period and is likely due to weather patterns during that time.

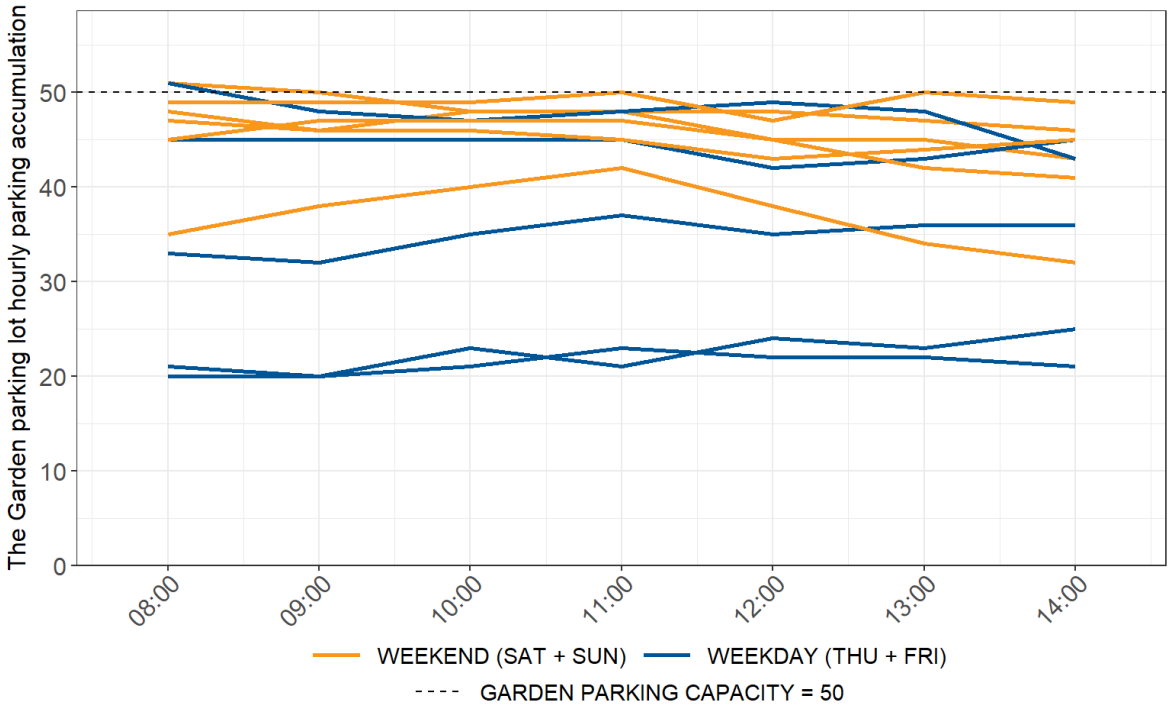


Figure 19. Hourly parking accumulation for access to the Johns Brook Valley Subregion of the project area at The Garden parking lot, by data collection date and day of week category. [25]

- Due to finite resources for data collection, counts were not recorded of the number of vehicles that entered The Garden parking lot and were turned away when it was full. Discussions with members of the Stakeholder Working Group and informal observations during a busy weekend day in September 2024 suggest that a substantial number of vehicles are turned away on busy days due to the lot being full. When this occurs, visitors park in Keene Valley and walk to The Garden or ride the shuttle, if it is operating. Members of the Stakeholder Working Group report that this can cause traffic congestion and interfere with local residents' ability to go about their daily routines (Figure 20). In some cases, residents' driveways are blocked and access for emergency services is obstructed, and some visitors who park in town take shortcuts through people's yards.
- Parking pressure in the Adirondack Loj Road, Cascade, and Johns Brook Valley Subregions is compounded by the fact that parking turnover is low. Day-use visitors who participated in the GPS tracking study conducted at the Adirondak Loj trailhead spent an average of approximately eight hours in the project area. In addition, close to one-quarter (22%) of all visitors surveyed at the Adirondack Loj trailhead stayed overnight in the project area. They spent an average of two nights and a maximum of five nights in the project area. Duration of stay data were not collected from visitors in the Cascade or Johns Brook Valley Subregions. However, given the hiking and backpacking opportunities there that can be of extended durations, it is reasonable to assume most visitors park for several hours or longer in these parts of the project area.

[25] Each line in the plot represents a single sampling day during the data collection period.

Figure 20. Photo-based observation of overflow parking from the High Peaks Project Area on Market Street in Keene Valley, 2017 (Source: Joe Pete Wilson).

- Parking data were not recorded at the Upper Works trailhead, also due to finite resources for data collection. Parking congestion was not mentioned as being an issue there by members of the NYSDEC/APA Core Team, Stakeholder Working Group, or the public.

3. **Visitor use in the High Peaks Project Area is dispersed across its expansive trail network, but it is generally destination-oriented. This causes use to be concentrated at a relatively limited number of popular destinations and on the primary hiking routes to them.**

   - More than half (54%) of all visitors who participated in the GPS tracking study conducted at the Adirondak Loj trailhead hiked to the summit of Mt. Marcy or Algonquin Peak and most of the others (35%) hiked to one of just a few other mountain summits in the project area or to Avalanche Lake.[26]
   - Related, nearly three-quarters of all visitors surveyed at the Adirondak Loj trailhead hiked to a mountain summit the day they completed the survey. Of those who did hike to a mountain summit that day, more than half (58%) hiked to the summit of Mt. Marcy or Algonquin Peak.
   - In addition, almost half (49%) of visitors surveyed at the Adirondak Loj trailhead reported that hiking to the summit of one of the 46 “High Peaks” was a primary purpose of their visit.

[26] Sampling for the GPS tracking study started at 7:00 a.m. each day. A member of the Stakeholder Working Group suggested that the percentage of study participants who hiked to the summit of Mt. Marcy may have been even higher if sampling had started earlier in the morning, given the tendency for visitors to start the hike early in the morning due to the extended length of the hike.

- In the Cascade Subregion, virtually all (98%) of visitors surveyed hiked to the Cascade Mountain summit.
- Due to finite resources, data about visitors hiking routes and destinations were not collected in the Johns Brook Valley Subregion or at the Upper Works trailhead.

4. **Despite the High Peaks Project Area's Wilderness designation, crowding occurs on mountain summits and along the primary hiking routes to them during the peak summer season.**
   - One-third (33%) of visitors surveyed in the Cascade Subregion for this project and one-fifth (19%) of visitors surveyed in the Adirondack Loj Road Subregion reported feeling crowded during their visit to the High Peaks Project Area.
   - Related, Stakeholder Working Group members reported that the volume of visitor use in the project area during peak periods strains the resources of local communities and partner organizations.
   - Counts of the number of people present in the Mt. Marcy summit viewscape (i.e., PPV counts in the area depicted in Figure 21) were greater than 10 PPV nearly half (47%) of the time on weekend days and were as high as 32 PPV. Visitor use conditions of more than 10 PPV in the summit viewscape exceed the self-reported crowding tolerances of a majority of surveyed visitors (57% or more; Figure 22) and a majority of the members of the Stakeholder Working Group (56% or more; Figure 23).

Figure 21. Viewscape for monitoring PPV on Mt. Marcy summit (with 12 PPV depicted).

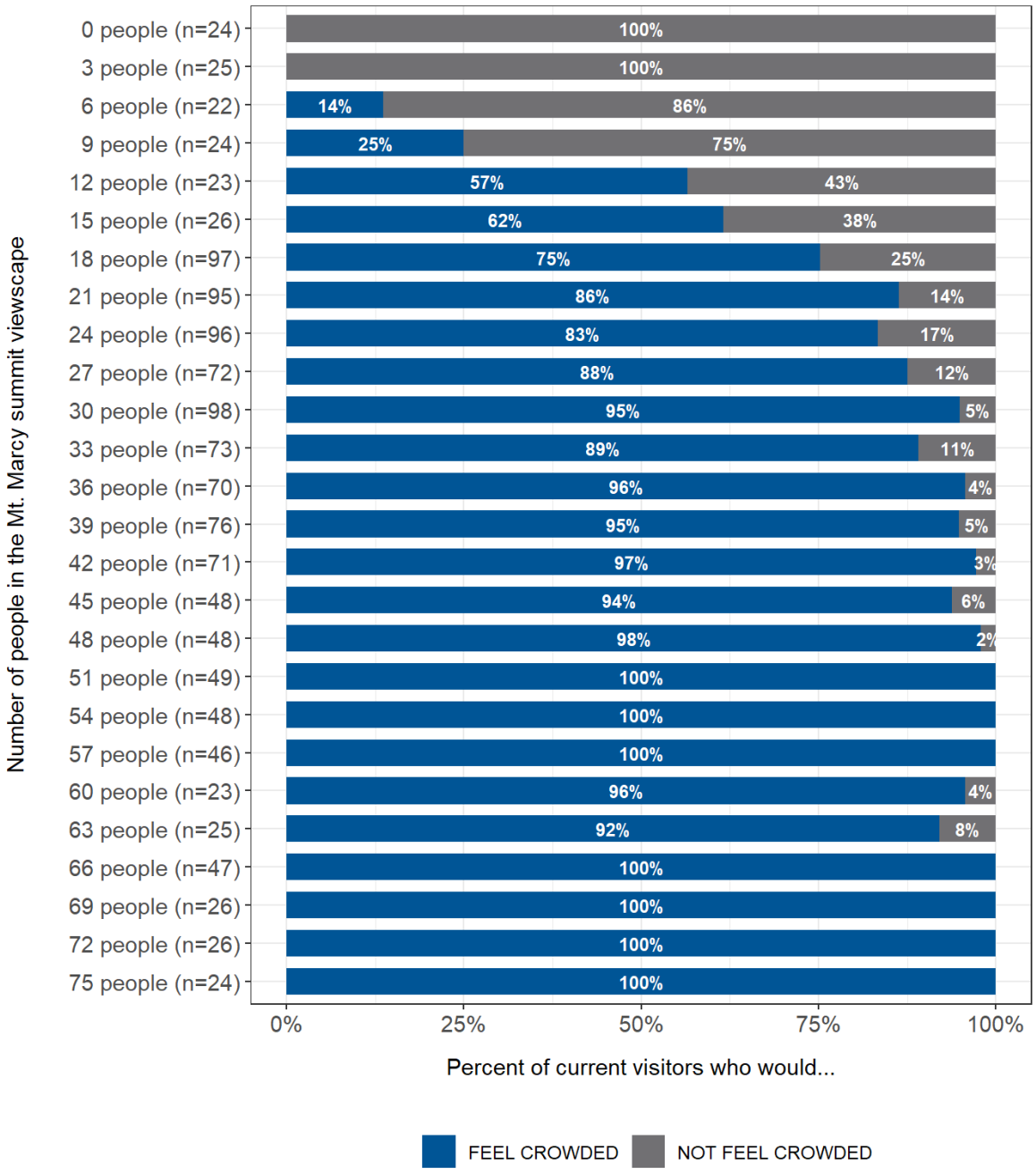


Figure 22. Summary of crowding responses of visitors to photo simulations of PPV in the Mt. Marcy summit viewscape, by the number of people depicted in the viewscape.

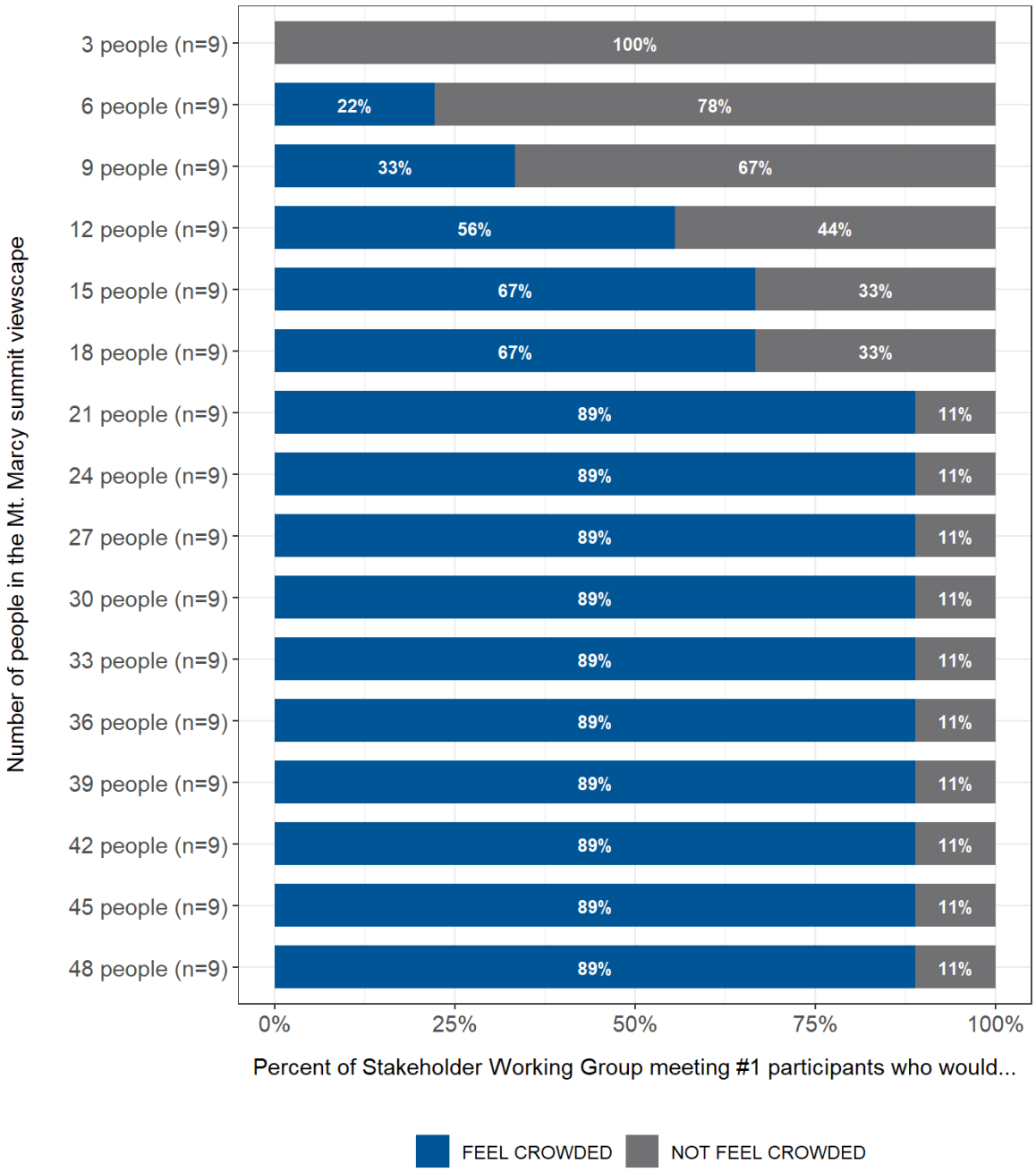


Figure 23. Summary of crowding responses of members of the Stakeholder Working Group to photo simulations of PPV in the Mt. Marcy summit viewscape, by the number of people depicted in the viewscape.

- Similarly, PPV counts in the Cascade Mountain summit viewscape (i.e., PPV counts in the area depicted in Figure 24) were greater than 10 PPV almost half (44%) of the time on fair-weather days and were as high as 32 PPV. Visitor use conditions of more than 10 PPV in the summit viewscape exceed the self-reported crowding tolerances of nearly half or more of surveyed visitors (45% or more; Figure 25). The Cascade Mountain photo simulation exercise was not conducted with the Stakeholder Working Group.

Figure 24. Viewscape for monitoring PPV on Cascade Mountain summit (with 10 PPV depicted).

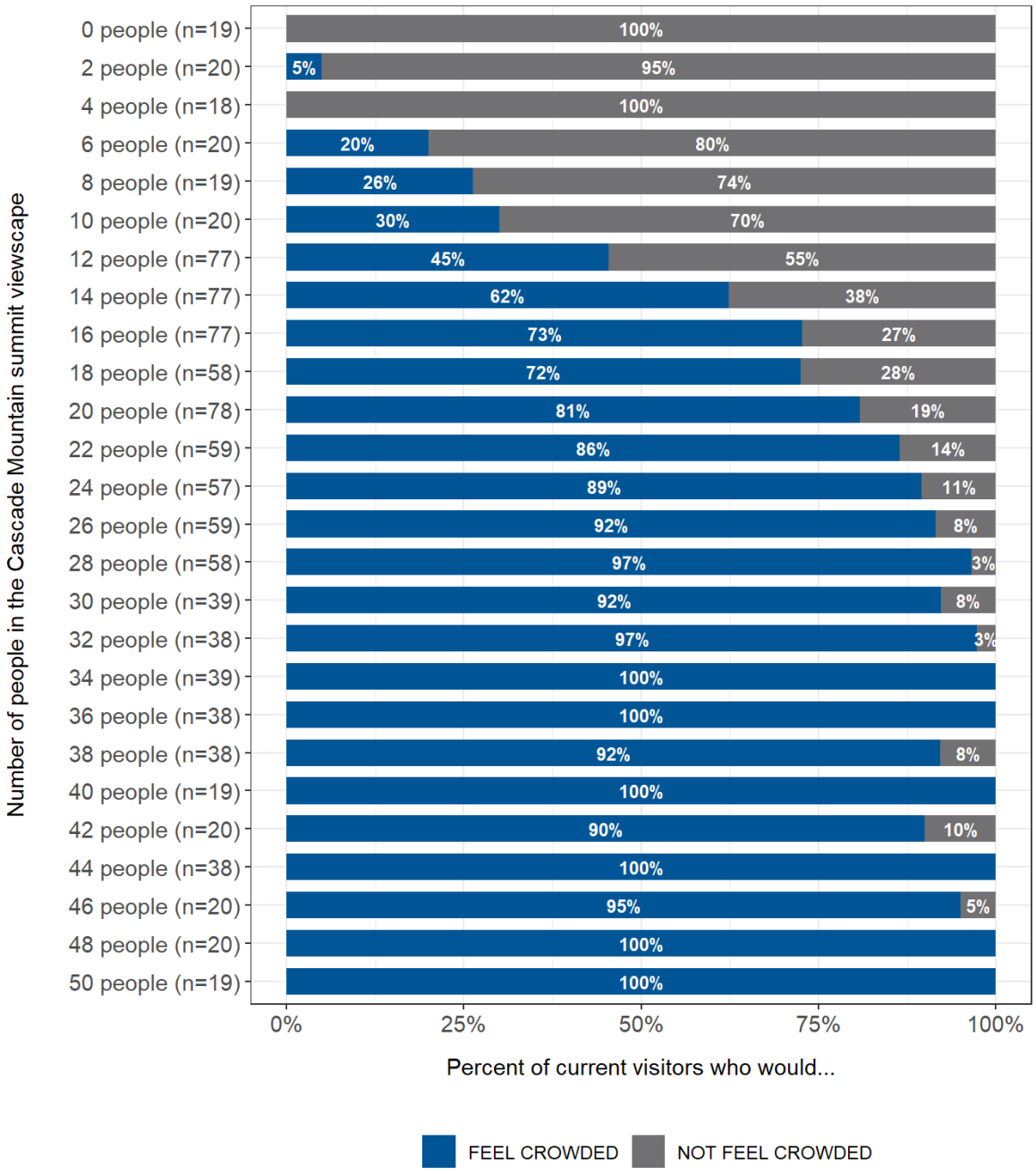


Figure 25. Summary of crowding responses of visitors to photo simulations of PPV in the Cascade Mountain summit viewscape, by the number of people depicted in the viewscape.

- Results from a 2021 study commissioned by the Adirondack Council include measures of intergroup encounters per hour on the Van Hoevenberg Trail to Mt. Marcy between the Adirondak Loj trailhead and the 50-meter bridge, and on the Algonquin Trail between the Adirondak Loj trailhead and the Wright Peak Trail Junction (see Figure 10 in Section 7.2 Selected Indicators and Thresholds). Intergroup encounters per hour on the Van Hoevenberg Trail to Mt. Marcy exceeded the higher-bound threshold for destination-oriented trails in the High Peaks Project Area on just over half (53%) of all sampled

hikes, and on the Algonquin Trail, they exceeded the threshold on one-third (33%) of all sampled hikes.

5. **Protecting Wilderness character is important to visitors in the project area, and there is substantial support among them to manage visitor access if they would otherwise experience crowding.**

   - During the summer of 2023, the Adirondack Diversity Initiative administered a survey to visitors in the High Peaks Region. More than half (52%) of the sample consisted of visitors contacted at the Adirondak Loj trailhead. The vast majority (90%) of visitors surveyed reported that experiencing solitude (90%), remoteness (87%), and a sense of self-reliance (86%) were important reasons for them to use the trails in the High Peaks Wilderness Complex that day. Nearly all of them reported that important reasons for them using the trails in the High Peaks Wilderness Complex that day were fostering immersion in nature (98%) and experiencing a pristine natural environment (98%).
   - A majority of visitors surveyed at the Adirondak Loj and Cascade Mountain trailheads for this project reported that they don't mind seeing other people while hiking (i.e., don't mind if they don't have a completely solitary experience; 73% and 75%, respectively). However, a majority of visitors surveyed at the Adirondak Loj and Cascade Mountain trailheads think it is important to have opportunities to hike without seeing others for at least some of the time while they are hiking (71% and 62%, respectively) and think it is important to be able to find a private spot to enjoy when they reach a mountain summit (67% and 60%, respectively). A majority of visitors surveyed at the Adirondak Loj trailhead also reported that having to pass or be passed by others while hiking makes their hike less enjoyable (51%), and 40% of visitors surveyed at the Cascade Mountain trailhead agreed.
   - Among visitors surveyed at the Adirondak Loj trailhead who reported feeling crowded during their visit, half or more support requiring visitors to make advanced reservations for weekends and holidays (50%) or to hike popular mountain summits (52%) if it is needed to manage crowding.[27] These options are more popular with them than requiring people to expect and adapt to crowded conditions (44% supported this option). Visitors surveyed at the Cascade Mountain trailhead who reported feeling crowded during their visit were evenly split between these options (41% to 42% supported the advanced reservation options and 42% supported requiring people to expect and adapt to crowded conditions).[28]

6. **Visitors generally do not plan their trips to the High Peaks Project Area more than a week in advance, and very few use the NYSDEC website to plan their visits.**

   - The majority of visitors surveyed at the Adirondak Loj and Cascade Mountain trailheads planned their trips to the High Peaks Project Area within a week of their visit (54% and 68%, respectively). Few of them used the NYSDEC website as a source of information to help plan their trip (6% and 7%, respectively). Relying on personal knowledge from previous visits was among the most common sources of information visitors used to plan their trips (53% and 41%, respectively). Weather forecasts (41% and 52%, respectively)

[27] Approximately 40% of all visitors surveyed, regardless of whether they felt crowded or not, supported these actions.
[28] Approximately 40% of all visitors surveyed, regardless of whether they felt crowded or not, supported the visitor use management actions noted. About half (54%) supported requiring people to expect and adapt to crowded conditions.

and websites other than the NYSDEC website (37% and 42%, respectively) were the other most commonly used sources of trip planning information.

7. **Mutually beneficial partnerships with local communities, non-profit organizations, and others are essential to manage visitor use and achieve desired conditions for the High Peaks Project Area.**

   - Discussions with the NYSDEC/APA Core Team, Stakeholder Working Group, and public emphasized and acknowledged the essential role of partnerships to achieve desired conditions for the High Peaks Project Area. A few examples are described below.
   - As noted, the ADK's parking and other public facilities at the Adirondak Loj provide the primary parking and visitor services for access into the Adirondack Loj Road Subregion of the project area.[29] The ADK staff at the Adirondak Loj are "on the front lines" managing visitor access, parking, information and education, and orientation for visitors as they prepare for and enter the project area.
   - Similarly, Keene Valley serves as a de facto overflow parking resource for visitors to the Johns Brook Valley Subregion of the project area when The Garden parking lot is full. This provides important economic opportunities for the town, but it also can place strains on the community during the peak summer season. The town serves a related key partnership role by operating shuttle service from an overflow parking facility they provide for visitors at Marcy Field to The Garden parking lot.
   - Plans are in place for the parking and trailhead access for the trail to Cascade Mountain to move from State Route 73 to Mt. Van Hoevenberg at the Olympic Sports Complex. This involves an important partnership with the Olympic Regional Development Authority and will help to address parking congestion and vehicle and pedestrian safety issues on State Route 73.

8. **Actions to manage visitor use during peak periods and at popular locations in the High Peaks Project Area could displace visitor use and impacts to lower use times and locations.**

   - Members of the NYSDEC/APA Core Team, Stakeholder Working Group, and public expressed an awareness that actions to address impacts of visitor use during peak periods and at popular locations could have unintended consequences for low use times and places in the High Peaks Wilderness Complex and other nearby state and private lands.
   - For example, strategies that aim to redistribute or otherwise reduce visitor use on busy summer weekend days and holidays could cause currently moderate levels of use in the project area on weekdays to increase. This could impact or negate the quality and character of experiences some visitors intentionally seek by avoiding weekends and instead visiting the project area on weekdays. It could also cause visitor use on weekends to shift to and increase at other locations in the High Peaks Wilderness Complex and other nearby state and private lands that currently experience low or moderate levels of use.
   - Similarly, strategies to redistribute or otherwise reduce visitor use on popular trails and mountain summits could cause visitor use and impacts to shift to locations that currently

[29] NYSDEC is the beneficiary of two deeded trail easements, although has no deeded rights for public parking. Parking is provided by the ADK and NYSDEC has no ability to regulate or control parking at this site. The ADK provides fee parking at various rates depending on ADK membership status.

provide opportunities for visitors who seek solitude or simply wish to avoid higher-use hiking routes and destinations. This could occur within the project area itself, and/or in other low-use locations in the High Peaks Wilderness Complex and other nearby state and private lands. Use could also shift to other locations that are already experiencing visitation pressure and where strategies have not yet been implemented to actively manage visitor use.

9. **Conditions in the portion of the High Peaks Project Area accessed via the Upper Works trailhead have not yet been assessed for impacts to visitors' experiences. This is addressed in the monitoring plan for the High Peaks Project Area, which includes monitoring intergroup encounters on trails there (see *Section 10. Monitoring Plan*).**

8.2 User Capacities for the High Peaks Project Area

The findings summarized above establish that current levels of visitor use during peak periods are causing traffic, parking, crowding, and public safety conditions that do not align with desired conditions. This section presents the methods and results to estimate the maximum number of visitors that can be accommodated per day in each of the Adirondack Loj Road Subregion and Cascade Subregion without unacceptable impacts to parking (VAOT), summit crowding (PPV), and trail crowding (intergroup encounters per hour)[30] conditions (i.e., parking- and crowding-related user capacities, respectively). Data are not available to estimate user capacities for the Johns Brook Valley Subregion as part of this project. Discussions with the NYSDEC/APA Core Team, Stakeholder Working Group, and the public suggest visitor use exceeds the parking capacity at The Garden on busy weekend days and this causes significant impacts to traffic, parking, and visitors' experiences in the project area and in Keene Valley.

8.2.1 Adirondack Loj Road Subregion

8.2.1.1 Crowding-related capacity of the Adirondack Loj Road Subregion

The crowding-related capacity of the Adirondack Loj Road Subregion is defined along two dimensions of visitor use and crowding-related impacts. It is defined as the maximum number of visitors who can be accommodated per day in the Adirondack Loj Road Subregion without exceeding the crowding threshold for PPV in the Mt. Marcy summit viewscape monitoring area or the crowding threshold for intergroup encounters on the Van Hoevenberg Trail to Mt. Marcy (see *Section 7.2 Selected Indicators and Thresholds* for details about these indicators and thresholds).

Regression models were developed to estimate the relationships between daily visitor use in the Adirondack Loj Road Subregion[31] and:

- The number of people in the viewscape for monitoring PPV on the Mt. Marcy summit (Figure 26).
- The number of intergroup encounters per hour visitors have while hiking on the Van Hoevenberg Trail to Mt. Marcy (Figure 27).

[30] Data were available to include intergroup encounters in the user capacity analysis for the Adirondack Loj Road Subregion, but not for the Cascade Subregion.
[31] Daily visitor use is the sum of calibrated trail use counts of visitors hiking inbound into the Adirondack Loj Road Subregion from the Adirondak Loj and South Meadows trailheads.

There is a strong statistical relationship between daily visitor use in the Adirondack Loj Road Subregion and PPV in the Mt. Marcy summit viewscape monitoring area (R^2 = 0.89).[32] This result supports using the regression model as an accurate and reliable tool to estimate the summit crowding-related capacity of the Adirondack Loj Road Subregion.

The statistical relationship between daily visitor use and intergroup encounters on the Van Hoevenberg Trail to Mt. Marcy is moderate (R^2 = 0.63). This result suggests it is reasonable to use the regression model to estimate the trail crowding-related capacity of the Adirondack Loj Road Subregion, but that the results are less precise than the estimate of the summit crowding-related capacity.

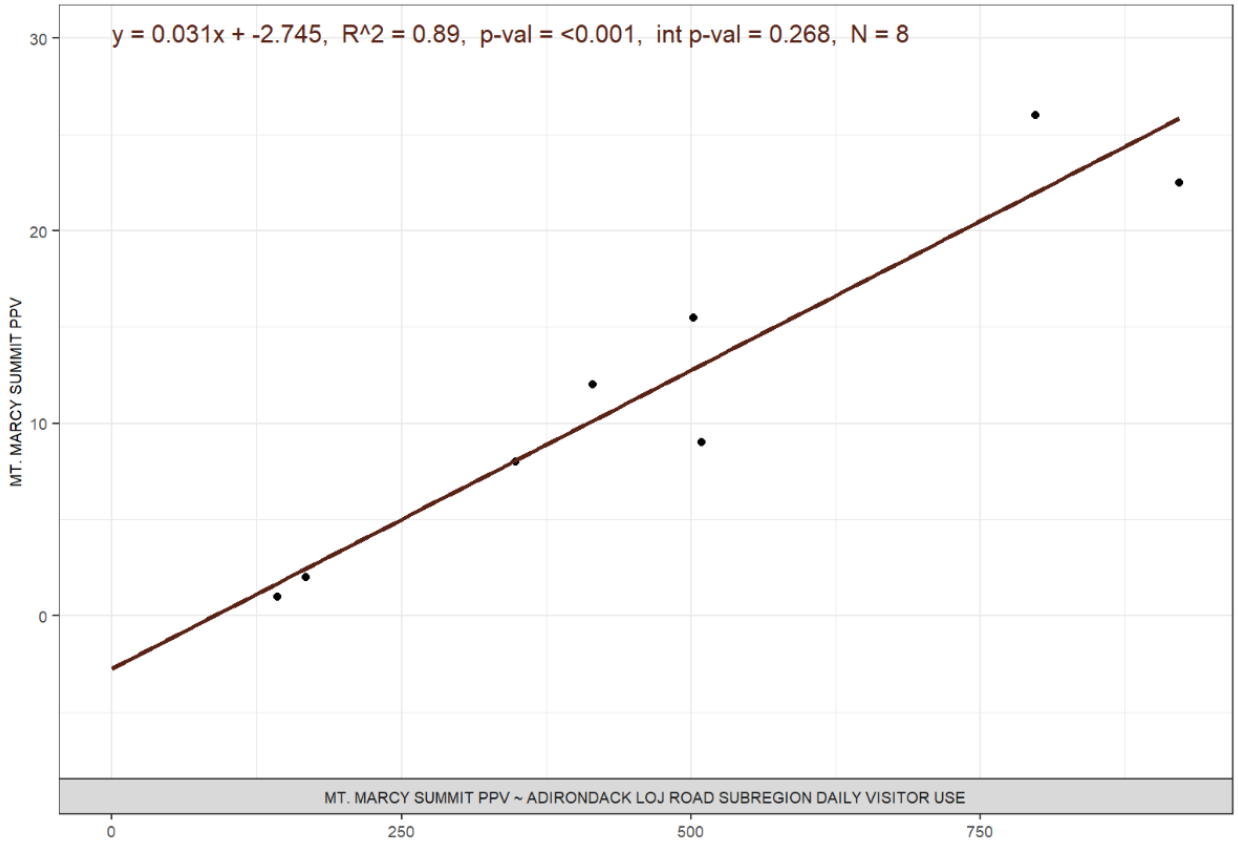


Figure 26. Scatterplot and regression model of the relationship between daily visitor use in the Adirondack Loj Road Subregion and PPV in the monitoring viewscape on the Mt. Marcy summit.

[32] Unexplained variance in the model is likely due, in part, to the fact that some visitor use on the summit of Mt. Marcy originates from locations other than the Adirondak Loj and South Meadows trailheads. The model estimates of PPV, however, account for all use on the mountain summit, regardless of the location where it originates.

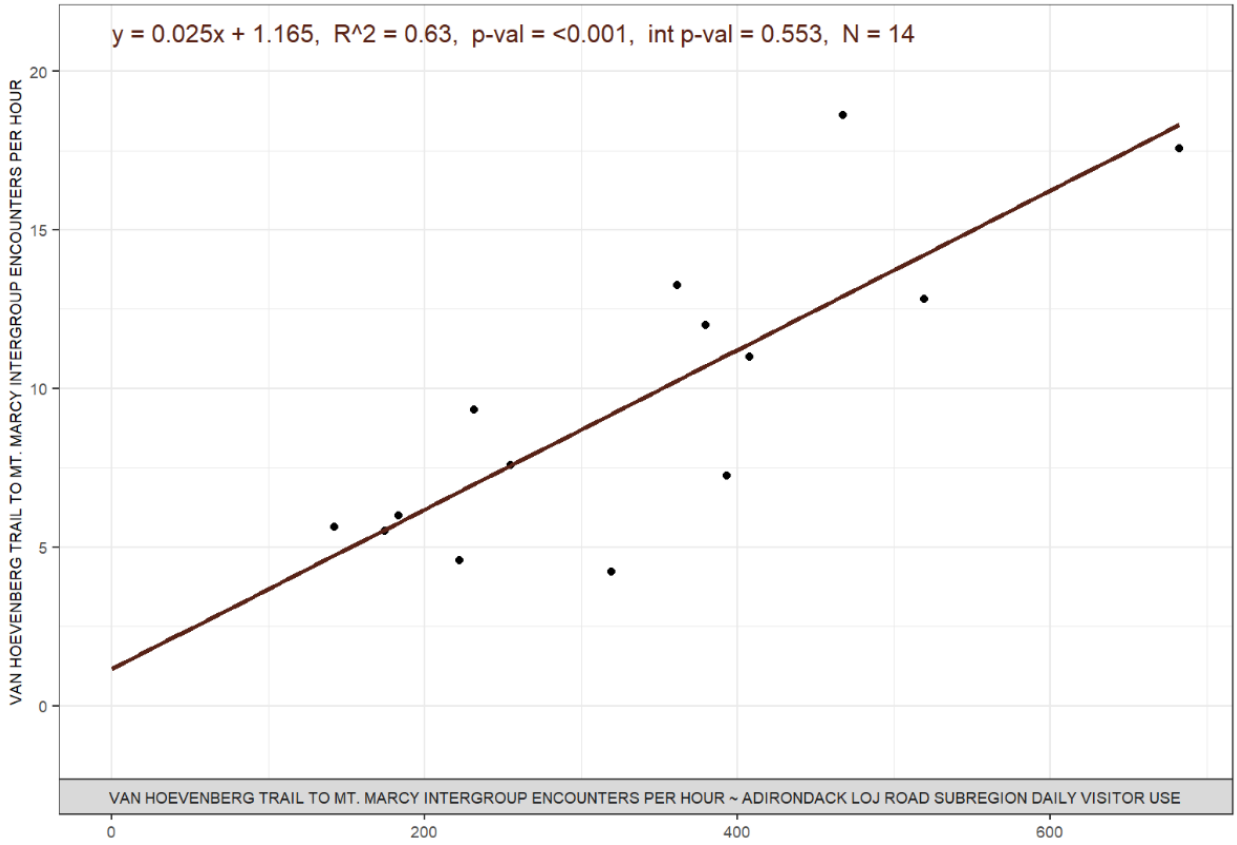


Figure 27. Scatterplot and regression model of the relationship between daily visitor use in the Adirondack Loj Road Subregion and intergroup encounters per hour on the Van Hoevenberg Trail to Mt. Marcy.

The summit crowding-related regression model was used to estimate that a maximum of approximately 400 visitors can be accommodated in the Adirondack Loj Road Subregion per day, without exceeding the crowding threshold for PPV in the Mt. Marcy summit viewscape monitoring area (Table 7).

The trail crowding-related regression model was used to estimate that a maximum of approximately 315 visitors can be accommodated in the Adirondack Loj Road Subregion per day, without exceeding the crowding threshold for intergroup encounters on the Van Hoevenberg Trail to Mt. Marcy (Table 7).

Table 7. Crowding-related indicators, thresholds, and user capacity estimates for daily visitor use in the Adirondack Loj Road Subregion.

Indicator	Threshold	Estimated numeric visitor capacity[33]
PPV on the Mt. Marcy summit	There will be fewer than 10 PPV in the Mt. Marcy summit viewscape 90% of the time.	400 visitors per day
Intergroup encounters per hour while hiking on the Van Hoevenberg Trail to Mt. Marcy	Visitors will have fewer than 9 intergroup encounters per hour while hiking on primary destination-oriented trails.[34]	315 visitors per day

Parking-related capacity of the Adirondack Loj Road Subregion

The parking-related capacity of the Adirondack Loj Road Subregion is defined as the maximum number of visitors who can be accommodated per day without exceeding a designated parking capacity of 180 parking spaces[35] (see *Section 7.2 Selected Indicators and Thresholds* for details about the parking congestion indicator and thresholds).

A regression model was developed to estimate the relationship between daily visitor use in the Adirondack Loj Road Subregion and the daily maximum number of vehicles parked at one time (i.e., VAOT) for access to the Adirondack Loj Road Subregion[36] (Figure 28). There is a strong statistical relationship (R^2 = 0.96) between daily visitor use in the Adirondack Loj Road Subregion and the daily maximum VAOT there. This suggests the regression model is an accurate and reliable tool to estimate the parking-related capacity of the Adirondack Loj Road Subregion.

[33] The daily user capacity numbers have been rounded to reflect that they are estimates.
[34] The threshold for intergroup encounters per hour specified that this condition will be met on 90% of sampled hikes. This component of the threshold is not explicitly accounted for in the user capacity estimate, and the result therefore is an underestimate of the trail crowding-related capacity of the area.
[35] This is in addition to the parking reserved for ADK's overnight guests and staff.
[36] This includes vehicles parked in the Adirondack Loj Road and Meadows Lane parking lots, on Meadows Lane, and on Adirondack Loj Road.

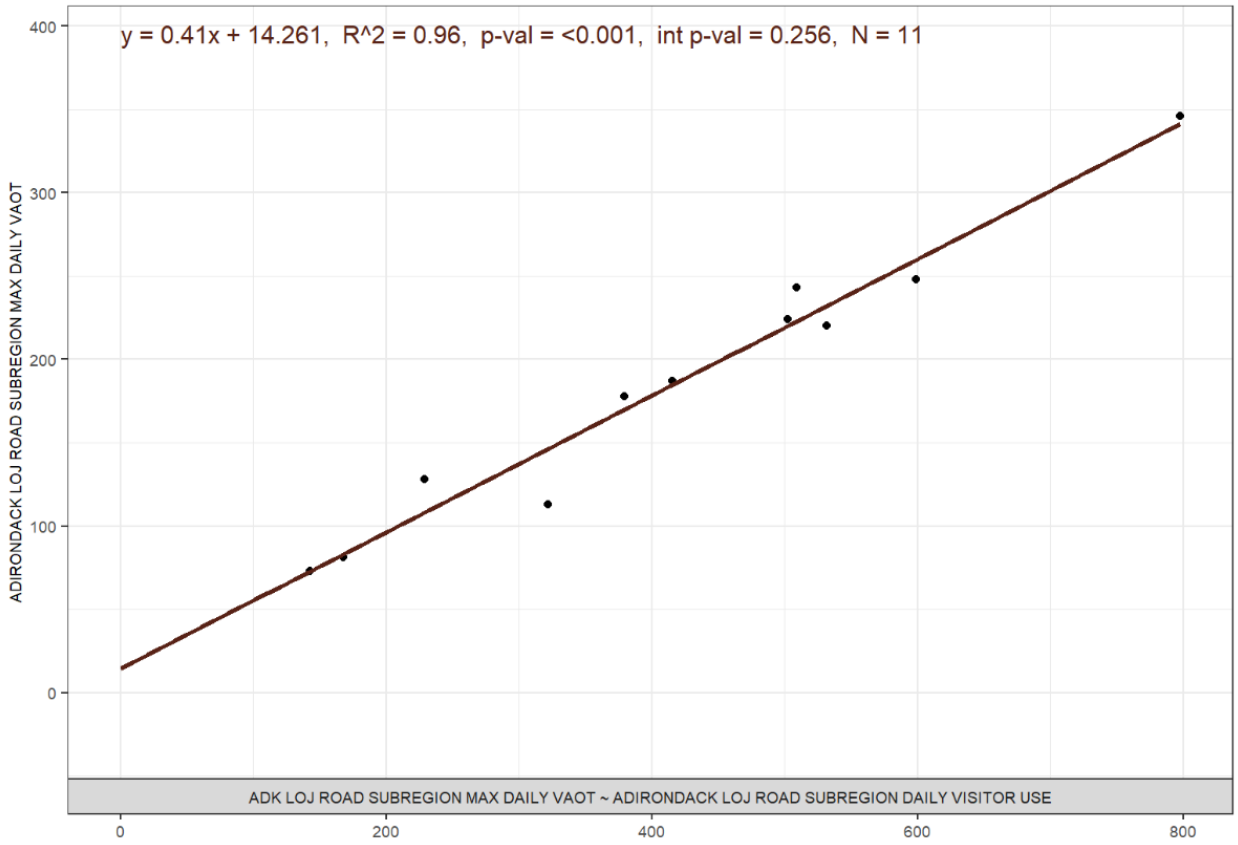


Figure 28. Scatterplot and regression model of the relationship between daily visitor use in the Adirondack Loj Road Subregion and the daily maximum VAOT in the Adirondack Loj Road Subregion.

The regression model was used to estimate that a maximum of approximately 400 visitors can be accommodated in the Adirondack Loj Road Subregion per day, without exceeding a designated parking capacity of 180 vehicles (Table 8).

Table 8. Parking-related indicator, threshold, and user capacity estimate for daily visitor use in the Adirondack Loj Road Subregion.

Indicator	Threshold	Estimated numeric visitor capacity[37]
Daily maximum number of **VAOT**	The daily maximum VAOT will not exceed the designated capacity of parking lots, and no vehicles will be parked on roadsides on 99% of days.	400 visitors per day

[37] The daily user capacity number has been rounded to reflect that it is an estimate.

8.2.1.2 Summary of findings regarding user capacities for the Adirondack Loj Road Subregion

- The user capacity analysis results suggest that a strategy to manage visitor use according to a designated parking capacity of approximately 180 automobiles could simultaneously address the summit crowding-related capacity of the Adirondack Loj Road Subregion.[38] It is likely that it would also address the estimated trail crowding-related capacity of the area, which is underestimated to some degree in the capacity analysis.[39] This would require instituting and enforcing roadside parking bans on Adirondack Loj Road and Meadows Lane and limiting the capacity of formal parking facilities for access to the project area. It would also require turning visitors away from the Adirondack Loj Road Subregion when the formally designated parking facilities are full.

- Alternatively, visitor use could be managed to the parking- and crowding-related capacities of the Adirondak Loj Subregion via a hiking permit reservation system. In either case, visitor use would be managed to a maximum of 400 visitors per day entering the project area from South Meadows or the Adirondak Loj trailhead.

- Advanced trip planning information and on-the-road dynamic message signs could potentially help to minimize the number of visitors who arrive at the Adirondak Loj, only to be turned away when the parking lot is full or because they do not possess a hiking permit. That said, results from the visitor survey administered to visitors at the Adirondak Loj trailhead suggest most visitors do not plan their trips more than a week in advance, and very few visitors use the NYSDEC website as a source for trip planning information. In addition, previous research in national parks suggest that when used on their own, real-time messages to inform visitors when parking lots are full may not be effective at dissuading visitors from trying to find parking and should be used in conjunction with other more direct management actions.

- Ultimately, effective strategies are needed in the Adirondack Loj Road Subregion to shift or otherwise reduce some use away from weekends and holidays during the peak summer season. The current volume of use there on busy summer and weekends significantly exceeds what can be accommodated without unacceptable parking, crowding, and vehicle and pedestrian safety conditions (Figure 29). It would be possible to accommodate additional visitor use on weekdays without exceeding the estimated crowding- and parking-related capacities of the Adirondack Loj Road Subregion. However, strategies that cause visitor use to shift to weekdays and/or to other areas of the High Peaks Wilderness Complex and other nearby state and private lands should be considered carefully. They should be coupled with strategies to manage use in those currently off-peak times and places intentionally.

[38] It is beyond the authority of NYSDEC to directly regulate parking on the ADK property. There is a Memorandum of Understanding between NYSDEC and the Town of North Elba relating to: 1) commitments by the State of New York to construct a parking area at the intersection of Adirondack Loj Road and Meadows Lane or provide an acceptable alternative; and 2) an agreement that the Town of North Elba will grant authority to NYSDEC to manage and/or close Meadows Lane, which is a non-conforming road in Wilderness. Both activities are contingent on NYSDEC providing funding for paving and maintenance of Adirondack Loj Road.
[39] The trail crowding-related capacity is less precise than the summit crowding- and parking-related capacity estimates and is underestimated to some extent, as noted. Monitoring intergroup encounters will be important to help refine and develop strategies to manage use to align with the trail crowding-related capacity of the area.

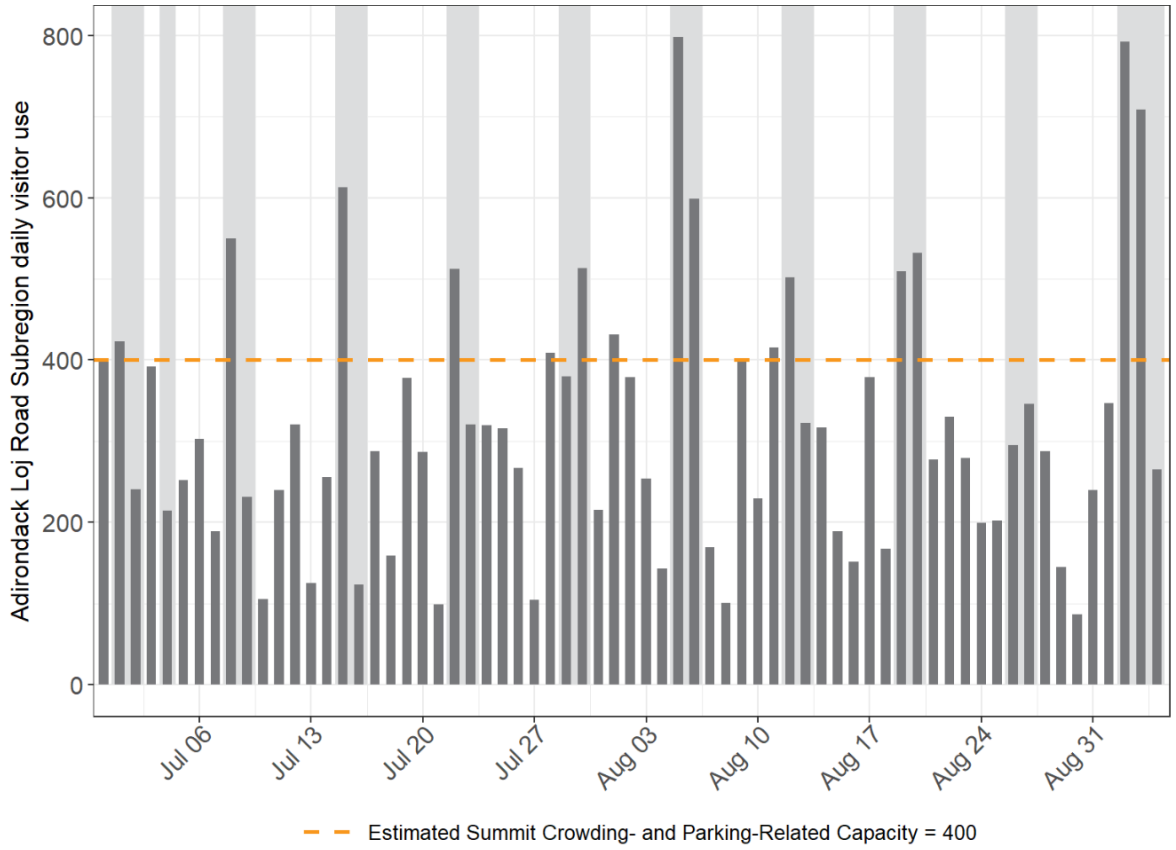


Figure 29. Daily visitor use in the Adirondack Loj Road Subregion during summer, 2023 and estimated daily user capacities (gray shading indicates weekend days and holidays).

8.2.2 Cascade Subregion

8.2.2.1 Crowding-related capacity of the Cascade Subregion

The crowding-related capacity of the Cascade Subregion is defined as the maximum number of visitors who can be accommodated per day in the Cascade Subregion without exceeding the crowding threshold for PPV in the Cascade Mountain summit viewscape monitoring area (see *Section 7.2 Selected Indicators and Thresholds* for details about the PPV indicator and threshold).

A regression model was developed to estimate the relationship between daily visitor use in the Cascade Subregion and the number of people in the viewscape for monitoring PPV on the Cascade Mountain summit (Figure 30). There is a moderate statistical relationship between daily visitor use in the Cascade Subregion and PPV in the Cascade Mountain summit viewscape monitoring area (R^2 = 0.65). This result suggests it is reasonable to use the regression model to estimate the crowding-related capacity of the Cascade Subregion, but that on-the-ground monitoring will be important to verify and/or refine the estimate.

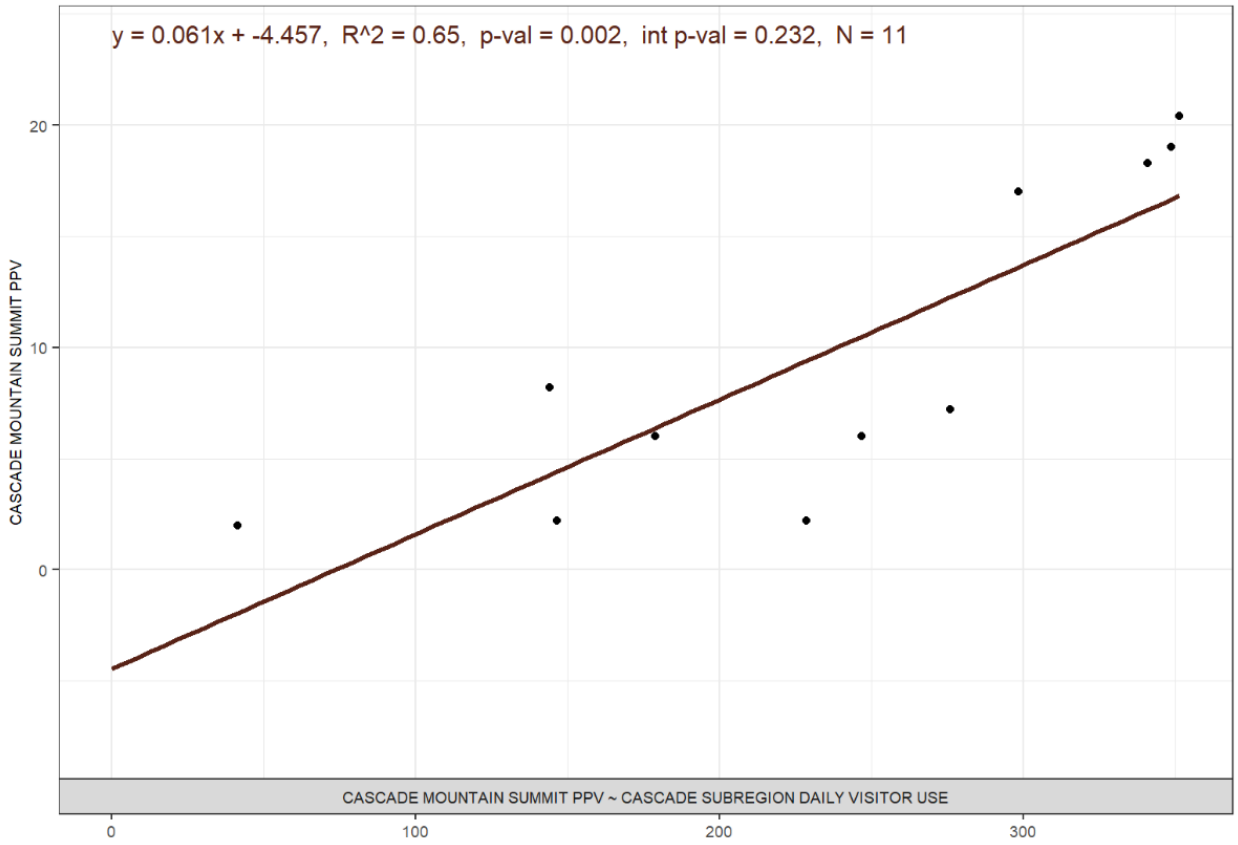


Figure 30. Scatterplot and regression model of the relationship between daily visitor use in the Cascade Subregion and PPV in the monitoring viewscape on the Cascade Mountain summit.

The regression model was used to estimate that a maximum of approximately 240 visitors can be accommodated in the Cascade Subregion per day, without exceeding the crowding threshold for PPV in the Cascade Mountain summit viewscape monitoring area (Table 9).

Table 9. Crowding-related indicator, threshold, and user capacity estimate for daily visitor use in the Cascade Subregion.

Indicator	Threshold	Estimated numeric visitor capacity[40]
PPV on the Cascade Mountain summit	There will be fewer than 10 PPV in the Cascade Mountain summit viewscape 90% of the time.	240 visitors per day

[40] The daily user capacity number has been rounded to reflect that it is an estimate.

8.2.2.2 Parking-related capacity of the Cascade Subregion

As noted, plans are in place for the parking and trailhead access for the trail to Cascade Mountain to move from State Route 73 to Mt. Van Hoevenberg at the Olympic Sports Complex. Correspondingly, a parking-related capacity was not estimated for the Cascade Subregion based on the current configuration of parking there. Instead, a regression model was developed to estimate the relationship between the daily maximum number of vehicles parked for access to the Cascade Subregion and total daily visitor use there. The model was then used to estimate the maximum parking footprint that is needed at Mt. Van Hoevenberg to accommodate visitor use up to but not beyond the estimated crowding-related capacity for the Cascade Subregion of 240 visitors per day.

The results of the regression analysis suggest there is a strong statistical relationship ($R^2 = 0.91$) between the daily maximum number of vehicles parked at one time (VAOT) for access to the Cascade Subregion and daily visitor use there (Figure 31). This suggests the regression model is an accurate and reliable tool to estimate the maximum parking footprint needed at Mt. Van Hoevenberg to accommodate visitor use up to but not beyond the estimated crowding-related capacity for the Cascade Subregion of 240 visitors per day.

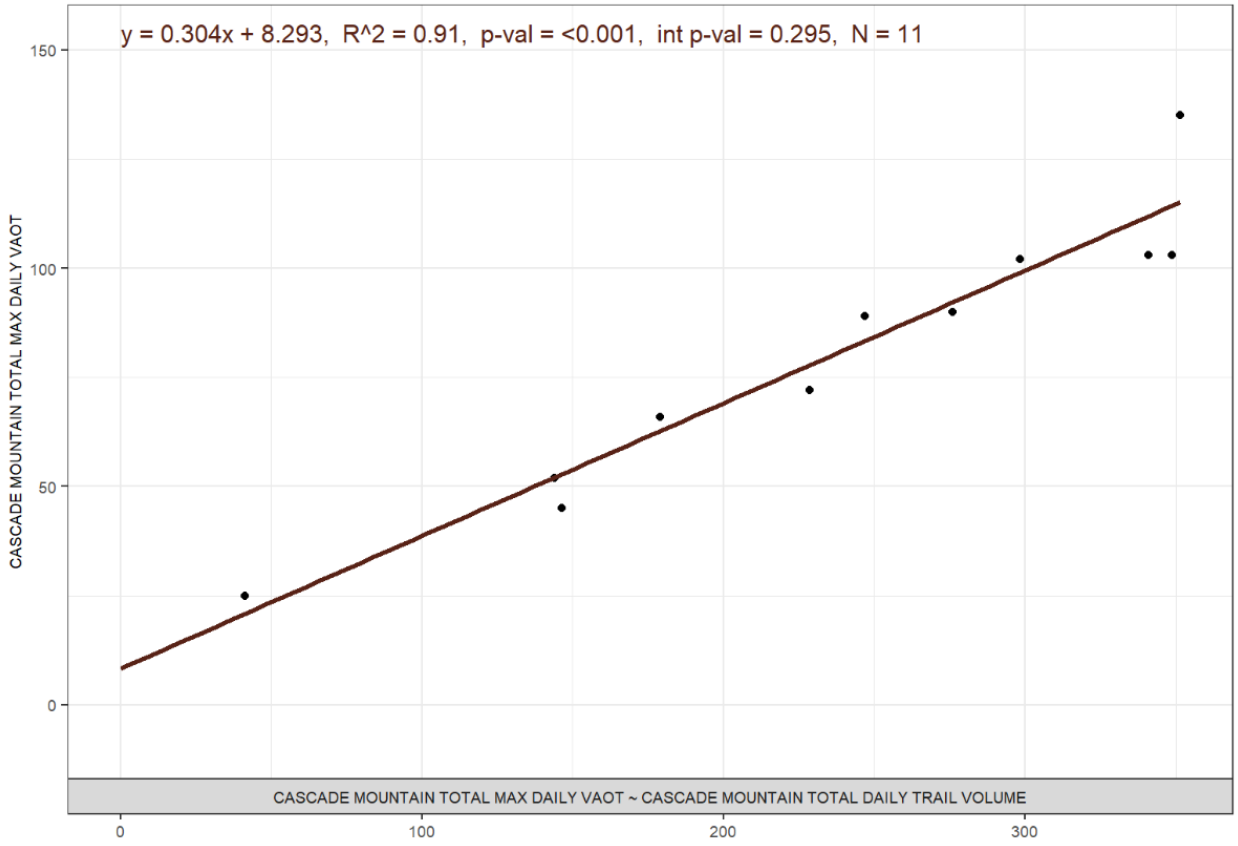


Figure 31. Scatterplot and regression model of the relationship between daily maximum VAOT for access to the Cascade Subregion and daily visitor use in the Cascade Subregion.

The regression model was used to estimate that a parking footprint of approximately 80 spaces is needed at Mt. Van Hoevenberg to accommodate visitor use up to but not beyond the estimated crowding-related capacity for the Cascade Subregion of 240 visitors per day.

8.2.2.3 Summary of findings regarding user capacities for the Cascade Subregion

The user capacity analysis results suggest that:

- There is an opportunity to proactively configure parking at Mt. Van Hoevenberg to a maximum of approximately 80 parking spaces as a strategy to manage visitor use for the Cascade Subregion. This would likely require on-the-ground traffic and parking management at Mt. Van Hoevenberg to limit parking to the designated footprint and to prevent unendorsed overflow parking.
- Advanced trip planning information and on-the-road dynamic message signs could potentially help to minimize the number of visitors who arrive at Mt. Van Hoevenberg intending to visit the Cascade Subregion, only to be turned away when the parking lot is full. That said, results from the visitor survey administered to visitors at the Cascade Mountain trailhead suggest most visitors do not plan their trips more than a week in advance and very few visitors use the NYSDEC website as a source for trip planning information.
- In addition, previous research in national parks suggest that when used on their own, real-time messages to inform visitors when parking lots are full may not be effective at dissuading visitors from trying to find parking and should be used in conjunction with other more direct management actions.
- Ultimately, effective strategies will be needed in the Cascade Subregion to shift or otherwise reduce some use away from weekends and holidays during the peak summer season. The current volume of use there on busy summer weekends significantly exceeds what can be accommodated without unacceptable crowding impacts on the Cascade Mountain summit (Figure 32).
- It would be possible to accommodate additional visitor use on weekdays without exceeding the estimated crowding-related capacity of the Cascade Subregion. However, strategies that cause use to shift to weekdays and/or to other areas of the High Peaks Wilderness Complex and other nearby state and private lands should be considered carefully. They should be coupled with strategies to manage use in those currently off-peak times and places intentionally.
- The findings summarized here are based on the current location and configuration of the Cascade Mountain trailhead, trail, and parking. Additional data collection and analysis may be warranted to refine and update user capacity estimates and associated management strategies.

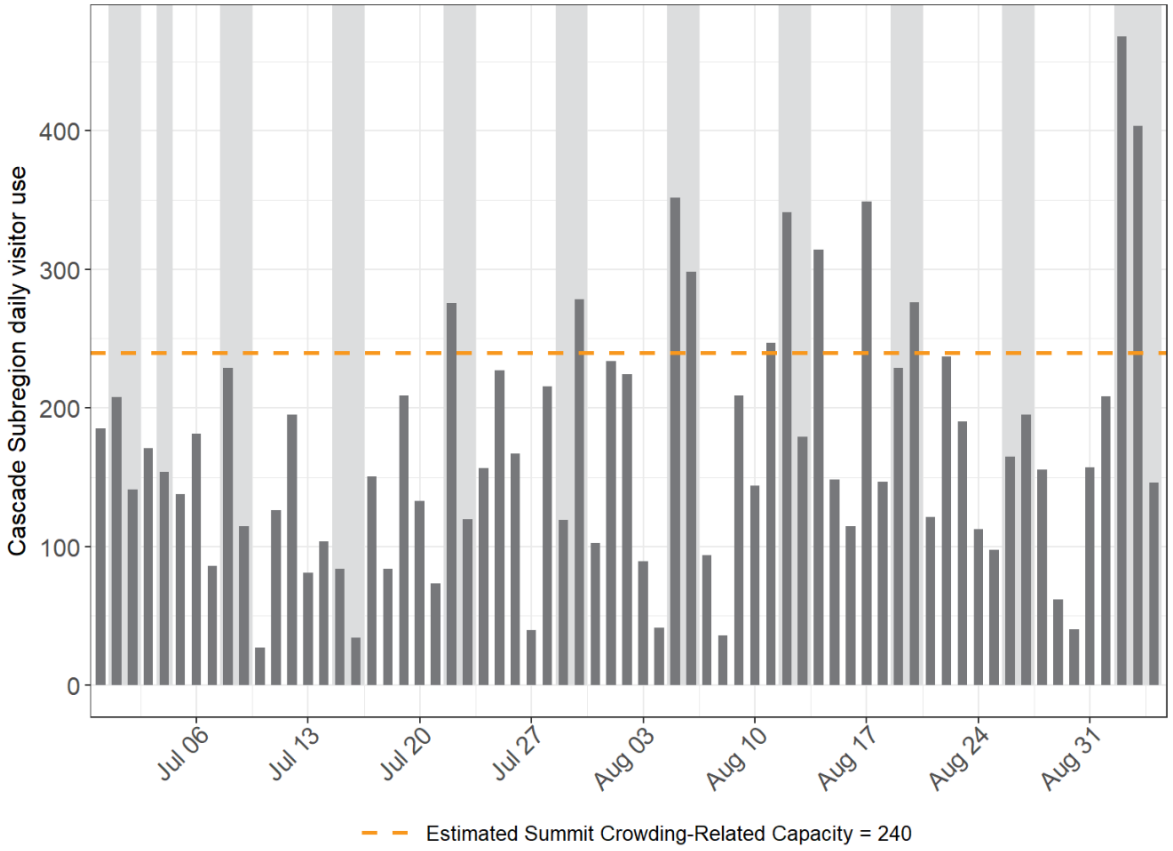


Figure 32. Daily visitor use in the Cascade Subregion during summer, 2023 and estimated daily user capacity (gray shading indicates weekend days and holidays)

9. Management Strategies

This section presents the project team's recommendations to NYSDEC regarding visitor use management strategies and actions that are needed to address persistent traffic, parking, crowding, and public safety issues in the High Peaks Project Area. Our recommendations are based on the research, engagement, and planning work presented in this report. They represent our best professional judgment about the actions NYSDEC could take to restore and maintain desired conditions for the High Peaks Project Area.

Our recommendations are organized in this section into 1) a suite of visitor use management strategies and actions that apply to all subregions of the High Peaks Project Area; 2) a coordinated program of subregion-specific visitor use management strategies and actions; and 3) a phased implementation plan for each subregion.

9.1 High Peaks Project Area-Wide Visitor Use Management Strategies and Actions

We recommend that NYSDEC implement the following visitor use management strategies and actions universally across the subregions of the High Peaks Project Area:

1. Work with key partners to implement visitor information and education strategies.

We recommend that NYSDEC work with its partners to implement the following visitor information and education strategies:

- Work with key partners to establish a one-stop visitor information website for advanced trip planning, to share information about visitor use management in the Forest Preserve, and to promote sustainable visitor use practices including Leave No Trace principles.[41]
- Work in partnership with local communities, advocacy and stewardship groups, destination marketing and management organizations, and other partners to identify and inform the visiting public about alternative destinations in the Forest Preserve and surrounding communities where there is the capacity to accommodate additional visitation. Work with these partners to develop and deploy informational signage, brochures, and maps about these other opportunities in the area.
- Maintain and create partnership agreement(s) to support deployment of onsite visitor information and education staff at the Adirondak Loj, the Cascade Mountain trailhead, and The Garden trailhead, and the hiking information center at Mt. Van Hoevenberg. The purpose of these partnerships would be to inform visitors about visitor use management in the Forest Preserve, provide them with information about alternative destinations where there is capacity for additional visitor use, and promote sustainable visitor use practices including Leave No Trace principles.

2. Implement visitor use monitoring for adaptive visitor use management.

We recommend that NYSDEC conduct visitor use monitoring in the High Peaks Project Area according to the monitoring plan for the High Peaks Project Area presented in *Section 10. Monitoring Plan,* and adapt the management strategies outlined in this section as necessary based on monitoring results. Monitoring is an essential element of NYSDEC's commitment to implement the VUMF in the High Peaks Project Area. It provides the basis to know whether management actions are effective and/or if they need to be adapted to achieve desired conditions for the project area.

The 2023 onsite data collection provides a baseline that establishes current conditions prior to implementing the visitor use management strategies outlined in this report and/or other strategies. At a minimum, we recommend that the next cycle of monitoring should be conducted in conjunction with the implementation of the parking management plans for the Adirondack Loj Road and Cascade Subregions and the visitor access management plan for the Johns Brook Valley Subregion described in this section.

Results from monitoring during the first year of implementing visitor use management strategies in the High Peaks Project Area should be used to assess and adapt management actions, as needed. For example, monitoring results might suggest that the amount of available parking for visitor access to one or more of the subregions in the project area can be increased or should be decreased, based on how visitor use and crowding-related conditions on trails and mountain summits respond. Similarly, monitoring results might suggest that staffing and/or messaging needs to be adjusted. In

[41] This would require all parties to be willing to participate.

these and similar ways, monitoring will be essential for NYSDEC to validate and/or refine visitor use management actions to achieve desired conditions and avoid unintended consequences of these actions.

3. **Conduct a formal assessment of the impacts of recreation use on ecological conditions and select ecological indicators for monitoring and adaptive visitor use management in the High Peaks Project Area.**

As noted, the scope of this project focused on addressing impacts of intensive visitor use on the quality and character of visitors' experiences and public safety in the High Peaks Project Area. As such, the project did not include an assessment of ecological conditions or the selection of ecological indicators to inform adaptive management strategies. As an important next step to develop a comprehensive approach to visitor use management for the High Peaks Project Area, we recommend that NYSDEC assess and select indicators for ecological conditions in the project area.

4. **Conduct visitor use monitoring and management planning for nearby areas of the Forest Preserve that might be at risk of displacement impacts from managing visitor use in the High Peaks Project Area.**

The High Peaks Project Area is part of a larger, complex landscape of important local communities, natural landscapes, and outdoor recreation destinations. As such, strategies to manage visitor use in the High Peaks Project Area are likely to have effects that extend beyond its boundaries. Visitor use monitoring and management planning efforts for other nearby areas in the High Peaks Wilderness Complex specifically, the Forest Preserve more generally (e.g., Giant Mountain Wilderness), and community-based destinations will be needed to maximize the benefits of management decisions and minimize the likelihood of unintended consequences. We recommend incorporating the VUMF into these related planning efforts to provide a unifying framework and approach across the landscape.

9.2 Recommendations for the Adirondack Loj Road Subregion

9.2.1 Visitor Use Management Strategies and Actions

We recommend that NYSDEC implement the following visitor use management strategies and actions in the Adirondack Loj Road Subregion of the High Peaks Project Area:

1. **Manage daily visitor use in the Adirondack Loj Road Subregion of the High Peaks Project Area to a maximum of 400 visitors per day.[42]**

As noted, current levels of visitor use on weekend days and holidays during the summer season create parking, traffic circulation, crowding, and public safety issues in the Adirondack Loj Road Subregion of the High Peaks Project Area. Results of the work conducted in this project suggest that a maximum of 400 visitors is the limit of what can be accommodated in the Adirondack Loj Road Subregion per day without unacceptable impacts to visitors' Wilderness experiences, park and partner operations, and public safety. This number may need to be adjusted by NYSDEC in the future, based on monitoring results after implementing visitor use management strategies.

[42] Daily visitor use in the Adirondack Loj Road Subregion is defined as the sum of the daily number of inbound visitors on trails into the High Peaks Project Area from the South Meadows and Adirondak Loj trailheads.

2. Work in partnership with the Town of North Elba, NYSDOT, and other key stakeholders and partners to implement a parking management plan for access to the Adirondack Loj Road Subregion.

Results of the user capacity analyses conducted in this project suggest that managing visitor use to a designated parking capacity of approximately 180 automobiles could simultaneously address the summit crowding-related capacity of the Adirondack Loj Road Subregion.[43] It is likely that it would also address the estimated trail crowding-related capacity of the area. Based on these findings, we recommend that NYSDEC work with its partners to implement a parking management plan, as follows:

- Manage visitor access to a designated parking capacity of approximately 180 automobiles and direct visitors to other destinations outside of the Adirondack Loj Road Subregion when the formally designated parking facilities are full.
- Alternatively, manage visitor access using a hiking permit reservation system for access to the Adirondack Loj Road Subregion of the project area via South Meadows or the Adirondak Loj trailhead.
- Develop a partnership agreement with the Town of North Elba to:
    - Institute and enforce a roadside parking ban on Adirondack Loj Road from its intersection with State Route 73 to the entrance to Adirondak Loj.[44]
    - Institute and enforce a roadside parking ban on Meadows Lane.
- Work in partnership with NYSDOT, the Town of North Elba, and other key stakeholders and partners, and according to state policy regulating lighted signs, to deploy on-the-road variable message boards on State Route 73 near its intersection with Adirondack Loj Road to alert visitors when the Adirondak Loj parking lot is full and/or that hiking permits are required, and to direct them to the hiking information centers at Mt. Van Hoevenberg and the Cascade Visitor Center for information about other areas to visit.

3. Work in partnership with the Town of North Elba and other key partners to deploy an on-the-ground parking management team during peak periods.

We recommend NYSDEC work in partnership with the Town of North Elba and other key partners to deploy a dedicated onsite parking management team during peak periods. An operations and communication plan should be developed in advance of deploying the team. We recommend that the team include two to four dedicated staff. Initially, we recommend that the team be deployed from 5:00 a.m. to 5:00 p.m. on Thursdays through Sundays from June through October. This may need to be adjusted if visitor use patterns shift from current conditions and/or based on other observations from monitoring on-the-ground conditions. We recommend that when the team is deployed, one member of the team be stationed at each of 1) on Adirondack Loj Road near the intersection of State Route 73 and Adirondack Loj Road; 2) on Adirondack Loj Road near the intersection of Adirondack Loj Road and Meadows Lane, and 3) in the parking lot on Meadows Lane. We also recommend one member of the team conduct a roving patrol of Adirondack Loj Road between State Route 73 and Meadows Lane (Figure 33).

[43] This is in addition to the parking reserved for ADK's overnight guests and staff.
[44] This action is an extension of the current ban on roadside parking from the intersection of Adirondack Loj Road and Meadows Lane to the Adirondak Loj entrance.

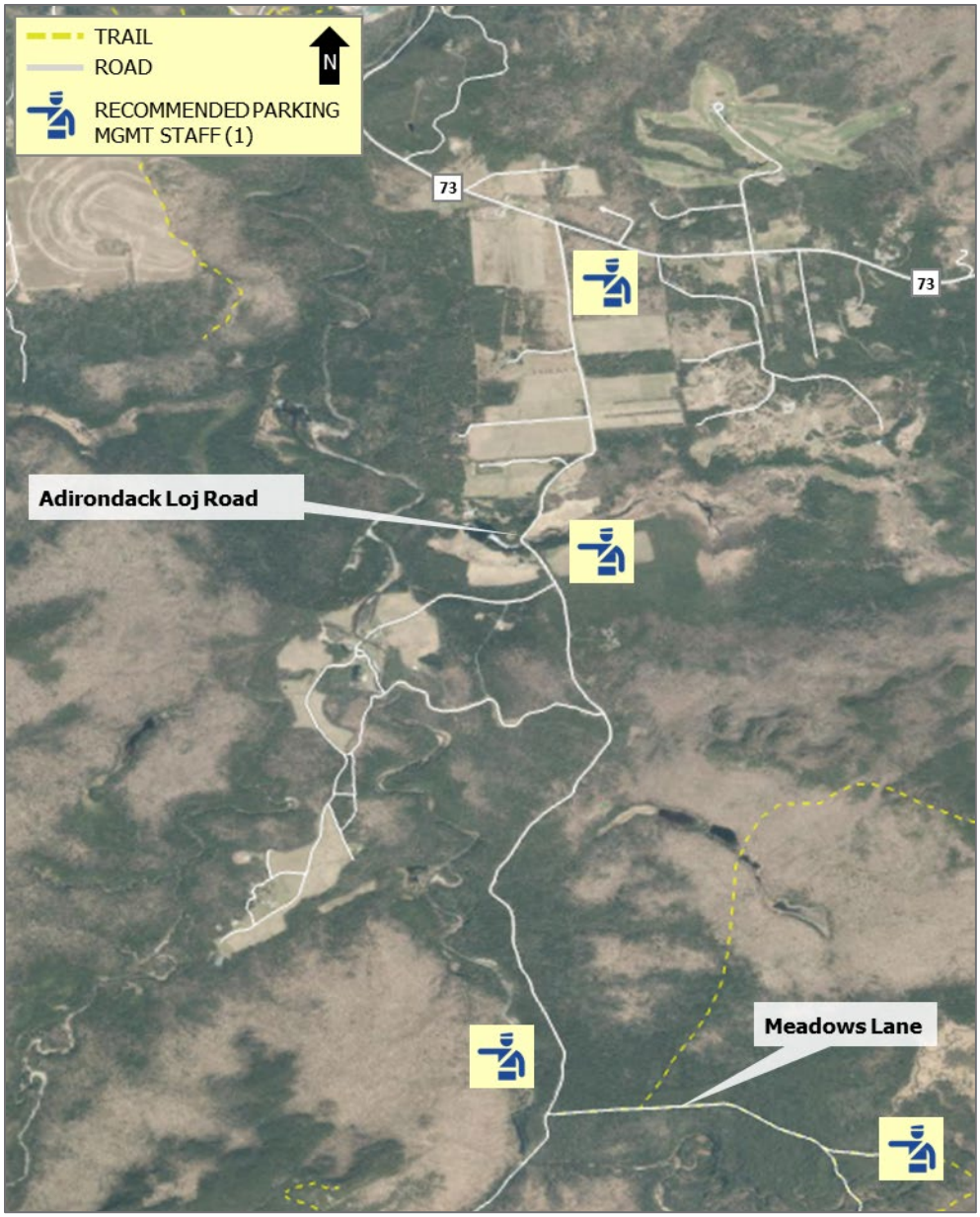


Figure 33. Recommended parking management components and staffing for the Adirondack Loj Road Subregion.

The parking management team staff will need to coordinate and communicate with each other via radio. Their primary duties will be to direct visitors to the designated parking location when spaces are available and to direct them to other destinations away from the Adirondack Loj Road Subregion when it is full. They would also monitor for and prevent unpermitted walk-ins and drop-offs when the parking lot is full.

4. If NYSDEC implements a hiking permit reservation system, deploy an on-the-ground permit check-stations at South Meadows and the Adirondak Loj trailhead.

If NYSDEC chooses to implement a hiking permit reservation system, it will be necessary to deploy dedicated, on-the-ground staff at South Meadows and the Adirondak Loj trailheads to

manage access to the trail network. Initially, we recommend that hiking permits be required and a two- to four-person team be deployed to check permits from 5:00 a.m. to 5:00 p.m. Thursdays through Sundays from June through October. This may need to be adjusted if visitor use patterns shift from current conditions and/or based on other factors.

If NYSDEC implements a hiking permit reservation system, the check-stations will be necessary to prevent visitors without a hiking permit from accessing the trail network from South Meadows or the Adirondack Loj trailhead. The hiking permit quotas and onsite check-stations may need to be adjusted over time and/or implemented at additional points of access to the project area based on monitoring results.

9.2.2 Phased Implementation

We recommend that NYSDEC implement the strategies outlined above using a phased approach as follows:

Phase 1 – Calendar Year 2026

- Continue current parking operations and management.
- Formalize plans and assemble the resources required for implementing visitor use management strategies.
- Conduct a public information campaign to provide advanced notice of changes that will be implemented to manage visitor use and access for the Adirondack Loj Road Subregion.
- Develop partnership agreements and operating plans with the Town of North Elba and other key stakeholders and partners for implementing the parking management plan.
- Coordinate with NYSDOT and local partners to develop action plans for visitor information and education strategies that will be delivered in conjunction with implementing the parking management plan.
- Conduct visitor use monitoring and preliminary management planning for nearby areas that could experience displacement impacts from managing visitor use in the Adirondack Loj Road Subregion.

Phase 2 – Calendar Year 2027

- Implement parking management plan.
- Implement visitor information and education strategies.
- Implement hiking permit reservation system, if NYSDEC chooses to manage visitor use this way.
- Conduct onsite monitoring according to the Visitor Use Monitoring Plan for the High Peaks Project Area (see *Section 10. Monitoring Plan).*
- Continue visitor use monitoring and preliminary management planning for nearby areas that could experience displacement impacts from managing visitor use in the Adirondack Loj Road Subregion.

Phase 3 – Calendar Year 2028

Adapt management strategies as needed based on monitoring results. This could include:

- Increasing or decreasing the supply of designated parking and/or hiking permits for access to the Adirondack Loj Road Subregion.
- Developing and preparing implementation plans for additional and more direct access management strategies (e.g., an advanced reservation system, if not otherwise implemented initially).
- Adopting and managing to lower crowding-related thresholds and user capacities on weekdays to preserve a diversity of high-quality Wilderness experiences.
- Implementing visitor use monitoring and management plans for nearby areas that could or do experience displacement impacts from managing visitor use in the Adirondack Loj Road Subregion.

9.3 Recommendations for the Cascade Subregion

9.3.1 Visitor Use Management Strategies and Actions

We recommend that NYSDEC implement the following visitor use management strategies and actions in the Cascade Subregion of the High Peaks Project Area:

1. Manage daily visitor use in the Cascade Subregion of the High Peaks Project Area to a maximum of 240 visitors per day.[45]

As noted, despite its Wilderness designation, crowding occurs in the Cascade Subregion of the High Peaks Project Area on fair-weather weekend days and holidays during the summer season. Current levels of visitor use also create parking pressure that can lead to extensive roadside parking on State Route 73 and potentially unsafe pedestrian traffic on the shoulder of the highway. The parking issues noted are expected to be addressed by NYSDEC's plans to relocate parking and trailhead access for the trail to Cascade Mountain to Mt. Van Hoevenberg at the Olympic Sports Complex. However, this plan is not likely to address crowding impacts in the Wilderness, and may in fact exacerbate them without proactive visitor use management strategies given the size and supply of parking in the new location.

Results of the work conducted in this project suggest that a maximum of 240 visitors is the limit of what can be accommodated in the Cascade Subregion per day without unacceptable levels of crowding on the Cascade Mountain summit.[46] This number may need to be adjusted by NYSDEC in the future, following the relocation and reconfiguration of the Cascade Mountain trail, trailhead, and parking and/or based on monitoring results after implementing visitor use management strategies.

2. Work in partnership with the Olympic Regional Development Authority (ORDA) to implement a parking management plan for access to the Cascade Subregion.[47]

The parking supply at Mt. Van Hoevenberg can accommodate substantially more than 240 visitors per day to access the Cascade Subregion. For this reason, we recommend that NYSDEC work proactively with ORDA to designate a parking supply of approximately 80 to 100 standard parking spaces for access to the Cascade Subregion (Figure 34). We recommend that when this designated supply of parking is full that NYSDEC direct visitors to other destinations outside of the Cascade Subregion. This will provide the mechanism by which to manage visitor use in the Cascade Subregion to a maximum of 240 visitors per day. If parking is not regulated, it is likely that crowding impacts will persist and potentially become more intense.

As part of implementing the parking management plan, we recommend that NYSDEC work in partnership with NYSDOT, ORDA, and the Town of North Elba to deploy on-the-road variable message boards on State Route 73 near its intersection with the access road to Mt. Van Hoevenberg (Figure 34). Use messaging to alert visitors when the designated parking for Cascade Mountain is full and to direct them to the hiking information centers at Mt. Van Hoevenberg and the Cascade Visitor Center for information about other areas to visit.

---

[45] Daily visitor use in the Cascade Subregion is defined as the daily number of inbound visitors on the trail to Cascade Mountain into the High Peaks Project Area from the Cascade Mountain trailhead.
[46] This does not account for visitor use patterns when the Cascade Mountain trail and trailhead are relocated. At that time, additional data collection and analysis may be warranted to update and refine user capacity estimates.
[47] This would require that ORDA supports this strategy.

3. Work in partnership with ORDA to deploy an on-the-ground parking management team during peak periods.[48]

We recommend NYSDEC work in partnership with ORDA to deploy a dedicated onsite parking management team when access for the Cascade Subregion is relocated to Mt. Van Hoevenberg. An operations and communication plan should be developed in advance of the site relocation. We recommend that the team include two dedicated staff per shift. Initially, we recommend that the team be deployed from 7:30 a.m. through 6:30 p.m. on Thursdays through Sundays from June through October. This may need to be adjusted if visitor use patterns shift from current conditions and/or based on other observations from monitoring on-the-ground conditions. We recommend that when the team is deployed, one member of the team be stationed on the access road to Mt. Van Hoevenberg and the other be stationed in the parking lot designated for access to the Cascade Subregion (Figure 34).

The parking management team staff will need to coordinate and communicate with each other via radio. Their primary duties will be to direct visitors to the designated parking location when spaces are available and to direct them to other destinations away from the Cascade Subregion when it is full. They would also monitor for and prevent unpermitted walk-ins and drop-offs when the parking lot is full.

Figure 34 depicts recommended parking management components and staffing for the Cascade Subregion.

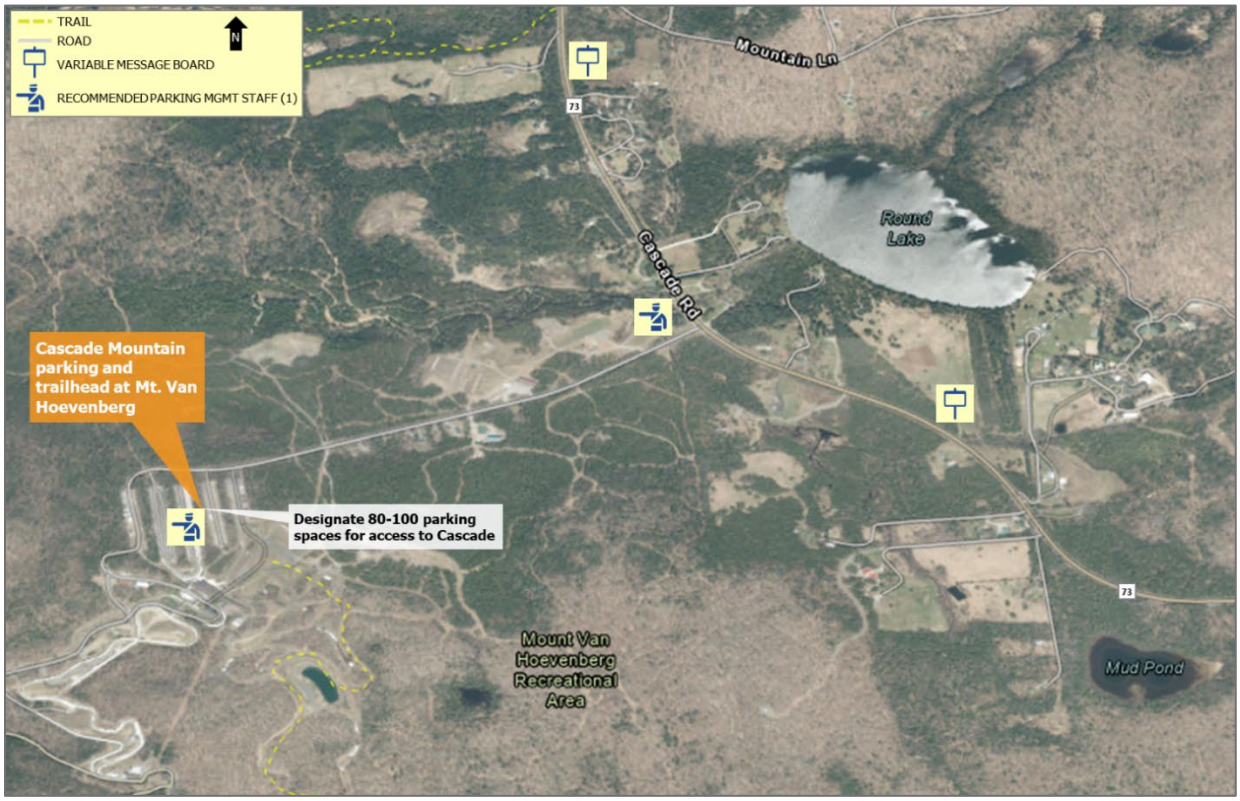


Figure 34. Recommended parking management plan components and on-the-ground parking management staff for the Cascade Subregion.

[48] This would require that ORDA supports this strategy.

9.3.2 Phased Implementation

We recommend that NYSDEC implement the strategies outlined above using a phased approach as follows:

Phase 1 – Calendar Year 2026

- Formalize plans and assemble the resources required for implementing visitor use management strategies in conjunction with relocating parking and trailhead access for the Cascade Subregion to Mt. Van Hoevenberg at the Olympic Sports Complex.
- Prepare information about plans for managing visitor use and access to include with the public information campaign about relocating the Cascade Mountain trailhead and parking.
- Develop a partnership agreement and operating and communication plan with ORDA for implementing the parking management plan and deploying a parking management team in conjunction with the Cascade Mountain trail, trailhead, and parking relocation project.
- Coordinate with NYSDOT and local partners to develop action plans for visitor information and education strategies that will be delivered in conjunction with implementing the parking management plan.
- Conduct visitor use monitoring and management planning for nearby areas that could experience displacement impacts from managing visitor use in the Cascade Subregion.

Phase 2 – In conjunction with relocating the Cascade Mountain trailhead and parking to the Olympic Sports Complex

- Implement the parking management plan.
- Implement visitor information and education strategies.
- Conduct onsite monitoring according to the Visitor Use Monitoring Plan for the High Peaks Project Area (see *Section 10. Monitoring Plan)*.
- Complete visitor use monitoring and management planning for nearby areas that could experience displacement impacts from managing visitor use in the Cascade Subregion.

Phase 3 – Following completion of Phase 2

Adapt management strategies as needed based on monitoring results. This could include:

- Increasing or decreasing the supply of parking for access to the Cascade Subregion.
- Developing and preparing implementation plans for additional and more direct access management strategies (e.g., an advanced reservation system).
- Adopting and managing to lower crowding-related thresholds and user capacities on weekdays to preserve a diversity of high-quality Wilderness experiences.
- Implementing visitor use monitoring and management plans for nearby areas that could or do experience displacement impacts from managing visitor use in the Cascade Subregion.

9.4 Recommendations for the Johns Brook Valley Subregion

9.4.1 Visitor Use Management Strategies and Actions

The Garden parking lot and trailhead provide the primary access to the Johns Brook Valley Subregion of the High Peaks Project Area. Results from the work completed in this project suggest that on most days during the summer season, the parking lot at The Garden is full or nearly full day and night. An onsite parking attendant manages parking and traffic in The Garden parking lot, and there is no physical space on Johns Brook Lane for visitors to park on the roadside when the lot is full. Correspondingly, visitor parking at The Garden is contained to the designated parking spaces in the lot and the parking supply is fully utilized.

From within the scope of the High Peaks Project Area itself, these findings suggest parking conditions are properly managed and there are no notable visitor parking-related impacts to emergency vehicle access, traffic circulation, pedestrian safety, and visitors' experiences. Beyond the scope of the project area itself, however, there is significant overflow parking in Keene Valley for access to The Garden during the busy summer season. Consequently, the impacts of intensive parking pressure to access The Garden occur primarily in Keene Valley itself.

Given this context, we recommend NYSDEC work in partnership with the Town of Keene and other key stakeholders and partners to take the following steps to develop and implement a visitor access management plan and related visitor use management strategies for the Johns Brook Valley Subregion.

1. **Work in partnership with the Town of Keene to conduct a visitor traffic, parking, and pedestrian safety study in Keene Valley.**

We recommend that NYSDEC and the Town of Keene work in partnership to conduct a parking, traffic, and pedestrian safety study to assess current conditions and impacts in Keene Valley due to overflow parking for access to The Garden. The primary purposes of the study would be to 1) quantify parking demand in Keene Valley for access to The Garden; 2) evaluate traffic circulation and vehicle volume capacities in town; 3) identify suitable locations and amounts of parking supply in Keene Valley for overflow parking for The Garden, if they are needed; and 4) identify safe and suitable pedestrian connections from overflow parking in Keene Valley to The Garden trailhead. This information would provide a basis to establish the maximum number of vehicles that could be accommodated for overflow parking in Keene Valley for access to The Garden without unacceptable traffic congestion, pedestrian and vehicle safety issues, or related residential issues in town.

2. **Work in partnership with the Town of Keene and other key stakeholders and partners to assess overnight parking demand for access to the Johns Brook Valley Subregion from The Garden trailhead.**

We recommend that NYSDEC work the Town of Keene and other key stakeholders and partners to systematically assess and estimate the demand for overnight parking for access to the Johns Brook Valley Subregion. The demand for overnight parking would be estimated as a function of the number and durations of stay of overnight campers and backpackers accessing the Wilderness from The Garden. This information would be critical for developing a comprehensive visitor access management plan for The Garden.

3. **Monitor intergroup encounters on select trails in the Johns Brook Valley to assess crowding impacts and to estimate the crowding-related capacity of the area.**

As noted, due to finite project resources, data were not collected as part of this project to assess crowding impacts and estimate crowding-related capacities for the Johns Brook Valley Subregion. To develop and finalize a visitor access management plan for the area, it will be necessary to first understand the amount of use the area can accommodate per day without unacceptable impacts to visitors' Wilderness experiences. This information is needed, along with the information from the two related steps above, to determine whether crowding on trails in the Johns Brook Valley, parking supply at The Garden and in Keene Valley, or traffic congestion in town is the limiting factor for the daily user capacity of the Johns Brook Valley Subregion.

Without this information, it would be possible to develop a visitor access management plan that is effective at accommodating parking demand but supports levels of visitor use that cause crowding impacts to visitors' Wilderness experiences.

4. **Determine the limiting factor and daily user capacity for accommodating visitor use for the Johns Brook Valley Subregion from The Garden trailhead without unacceptable impacts in the Forest Preserve and in Keene Valley.**

We recommend that NYSDEC work in partnership with the Town of Keene to use the information from the preceding steps to determine the limiting factor and daily user capacity for accommodating visitor use in the Johns Brook Valley Subregion from The Garden. This work is necessary to determine if the Johns Brook Valley Subregion has the capacity for visitor use levels beyond that which can be accommodated in The Garden parking lot alone.

It may be that overflow parking in Keene Valley sustains levels of visitor use that create unacceptable crowding impacts in the Johns Brook Valley Subregion. Alternatively, it may be that some additional amount of visitor use can be accommodated from overflow parking offsite from The Garden without causing unacceptable crowding impacts to visitors' Wilderness experiences. In this case, it will be necessary to determine how much and where overflow parking can be provided without unacceptable community impacts in Keene Valley or crowding impacts in the Johns Brook Valley Subregion. Related, it will be necessary to determine if there is a role for shuttle service in providing access to The Garden or if doing so would result in "over-delivering" visitors to the trailhead and causing crowding impacts in the Wilderness (Lawson et al., 2017).

5. **Work in partnership with the Town of Keene and other key stakeholders and partners to develop and implement a visitor access management plan for The Garden.**

The information and findings from the assessment outlined above will provide an informed basis to develop and implement a detailed visitor access management plan for The Garden. Specific recommendations for the visitor access management plan depend on the results of the assessment and should address each of the following components:

- **The Garden parking lot:** In the base case, we recommend continuing current operations for managing The Garden parking lot for access to the Johns Brook Valley Subregion of the project area. Depending on the findings from the assessment outlined above, and particularly regarding the daily user capacity for the Johns Brook Valley Subregion, The Garden parking lot may be the only parking that is necessary and appropriate to accommodate visitor access to The Garden trailhead. In this case, we would recommend that NYSDEC coordinate with the Town of Keene to request that they

institute and enforce a resident parking only system and/or visitor parking duration restrictions (e.g., 2-hour parking)[49] on all town roads in Keene Valley and that they discontinue the town-operated shuttle service from Marcy Field to The Garden.

- **Overflow parking in Keene Valley:** It may be that the assessment results suggest additional visitor use beyond that from The Garden parking lot alone can be accommodated without unacceptable crowding in the Johns Brook Valley Subregion. In this case, we would recommend NYSDEC and the Town of Keene work together to designate suitable locations in Keene Valley for overflow parking to the limit of what can be accommodated without crowding impacts in the Forest Preserve or traffic congestion and related community impacts in Keene Valley. We would recommend that safe and suitable pedestrian connections be developed for access from designated overflow parking locations in Keene Valley to The Garden.

  On town roads in Keene Valley where overflow parking for The Garden is not designated or allowed, we would recommend that the Town of Keene institute and enforce a resident parking only system and/or parking duration restrictions (e.g., 2-hour parking).

- **Shuttle service from Keene Valley to The Garden:** Shuttle service from Keene Valley to The Garden is only recommended if 1) additional visitor use beyond that from The Garden parking lot alone can be accommodated without unacceptable crowding; and 2) it is determined by the Town of Keene to have less impact on traffic conditions and residential life in Keene Valley than designating overflow parking in town and establishing pedestrian connections to The Garden. Shuttle service should not be operated for access to The Garden if it will deliver volumes of visitor use that cause unacceptable crowding in the Johns Brook Valley Subregion.

  If shuttle service is a suitable option, we recommend that NYSDEC assume responsibility for the shuttle service and that the Town of Keene provide access to Marcy Field or another similar location as a visitor park-and-ride area for the shuttle service.

  We would also recommend that the Town of Keene be responsible for traffic and parking management at the park-and-ride location in Keene Valley. In addition, we would recommend that NYSDEC work with the U.S. Department of Transportation Volpe National Transportation Systems Center or a transportation/transit planning consultant to conduct a shuttle feasibility analysis and develop an operating plan for the service from Keene Valley to The Garden. If overflow parking is not allowed in Keene Valley and instead is staged at the park-and-ride, we recommend that the Town of Keene institute and enforce a resident parking only system and/or parking duration restrictions (e.g., 2-hour parking) on all town roads in Keene Valley.

- **Designated parking for overnight visitors:** We recommend designating a parking location for overnight visitors, if 1) there is capacity to sustain visitor use beyond what can be accommodated in The Garden parking lot alone; and 2) there is ample overnight parking demand to warrant it. For example, some or all of the spaces in The Garden parking lot could be designated for overnight visitors and day use visitors could be directed to other parking spaces in The Garden parking lot and/or in Keene Valley. Alternatively, The Garden parking lot could be designated for day use visitors only and overnight visitors could be directed to park in Keene Valley. This latter option would make more sense if there is shuttle service from Keene Valley than if visitors parking in

[49] A visitor parking duration would deter visitors intent on a full day hike out of The Garden from parking in Keene Valley, while still allowing visitors intent on spending shorter periods of time in Keene Valley itself to park on town roads.

Keene Valley need to walk to The Garden with their overnight equipment and supplies. We also recommend instituting and enforcing a restriction on the total number of nights overnight visitors are allowed to park for access to The Garden.

6. **Work in partnership with the Town of Keene and other key stakeholders and partners to implement the comprehensive visitor access management plan for the Johns Brook Valley Subregion from The Garden trailhead.**

We recommend the following primary roles and responsibilities for implementing the visitor access management plan for The Garden:

- **NYSDEC:** Regardless of the details of the access management plan, NYSDEC would have responsibility for visitor use management and visitor information and education at The Garden and in the High Peaks Project Area. If applicable, we would recommend that NYSDEC assume responsibility for assessing the feasibility of and obtaining the services of an outside organization to operate shuttle service from Keene Valley to The Garden.
- **Town of Keene:** We recommend that the Town of Keene maintain responsibility for parking management at The Garden and for visitor use-related traffic and parking management in Keene Valley.[50]Depending on the details of the access management plan, this could include:
    - Managing parking at The Garden (this would happen in all cases).
    - Deploying personnel and/or a dynamic message board on Market Street at its intersection with Adirondack Street and Johns Brook Lane. The purpose of this strategy would be to actively reroute visitor traffic away from Johns Brook Lane and to other destinations when The Garden parking lot is full. We recommend implementing this in all cases.
    - Deploying on-the-road visitor information and wayfinding signs at strategic locations to direct visitors to designated points of access to The Garden and to other destinations when parking is not available.
    - Instituting and enforcing a resident-only parking system and/or parking duration restrictions on all town roads in Keene Valley, if visitor parking is limited to The Garden. If overflow parking is allowed in Keene Valley, this action would only apply to town roads where overflow parking is not designated or allowed.
    - Traffic and parking management at a shuttle park-and-ride location, if shuttle service is provided for access to The Garden and parking is located in Keene Valley.
- **Other key stakeholders and partners**: Regardless of the details of the access management plan, we recommend NYSDEC work with its other key stakeholders and partners to help provide visitor information, education, and related services at The Garden trailhead and the hiking information centers at Mt. Van Hoevenberg and the Cascade Visitor Center in support of visitor use management in the High Peaks Project Area.

[50] This would require that the Town of Keene supports continuing in these roles. Ultimately, the operation of the parking lot at The Garden is NYSDEC's responsibility.

9.4.2 Phased Implementation

We recommend that NYSDEC work in partnership with the Town of Keene and other key stakeholders and partners to implement the strategies outlined above using a phased approach as follows:

Phase 1 – Calendar Year 2026

- Work in partnership with the Town of Keene to conduct a visitor traffic, parking, and pedestrian safety study in Keene Valley.
- Work in partnership with the Town of Keene and other key stakeholders and partners to assess overnight parking demand for access to the Johns Brook Valley Subregion from The Garden trailhead.
- Monitor intergroup encounters on select trails in the Johns Brook Valley to assess crowding impacts and to estimate the crowding-related capacity of the Johns Brook Valley Subregion.
- Determine the limiting factor and daily user capacity for visitor access to the Johns Brook Valley Subregion from The Garden trailhead.

Phase 2 – Calendar Year 2027

- Develop a visitor access management plan for The Garden and assemble the resources required to implement the plan.
- Conduct a shuttle feasibility analysis and operating plan, if applicable.
- Conduct a public information campaign to provide advanced notice of changes that will be implemented to manage visitor access to The Garden.
- Develop partnership agreements and operating and communication plans with the Town of Keene and other key stakeholders and partners for implementing the visitor access management plan.
- Conduct visitor use monitoring and management planning for nearby areas that could experience displacement impacts from managing visitor access to The Garden.

Phase 3 – Calendar Year 2028

- Implement the visitor access management plan.
- Implement visitor information and education strategies.
- Conduct onsite monitoring according to the Visitor Use Monitoring Plan for the High Peaks Project Area (see *Section 10. Monitoring Plan)*.
- Complete visitor use monitoring and management planning for nearby areas that could experience displacement impacts from managing visitor use in the Johns Brook Valley Subregion.

Phase 4 – Calendar Year 2029

Adapt management strategies as needed based on monitoring results. This could include:

- Eliminating all overflow parking in Keene Valley and reducing visitor access to The Garden parking lot only.
- Formalizing or expanding overflow parking in Keene Valley.

- Discontinue or formalize shuttle service from Keene Valley to The Garden.
- Enhancing or adapting traffic and parking management at The Garden and/or in Keene Valley.
- Instituting an advanced reservation system or similar for enhanced and direct visitor access management if crowding impacts are otherwise not managed and/or if traffic, parking, pedestrian safety, and residential issues persist in Keene Valley.
- Adopting and managing to lower crowding-related thresholds and user capacities on weekdays to preserve a diversity of high-quality Wilderness experiences.
- Implementing visitor use monitoring and management plans for nearby areas that could or do experience displacement impacts from managing visitor access to The Garden.

10. Monitoring Plan

This section presents a long-term monitoring plan for the High Peaks Project Area. The monitoring plan provides guidance and tools to implement the indicators and thresholds selected for long-term monitoring and adaptive management of visitor use according to desired conditions in the High Peaks Project Area.

Implementing this monitoring plan is an essential component of determining if visitor use management strategies are effective, and/or if additional strategies are required to achieve desired conditions in the High Peaks Project Area. Monitoring is also an essential element of NYSDEC's commitment to implement the VUMF in the High Peaks Project Area.

The remainder of this section presents the core monitoring plan components, detailed monitoring protocols, and log forms required to implement the plan.

10.1 Monitoring Plan Components

This section presents the core monitoring plan components, including: 1) monitoring indicators and their thresholds; 2) a sampling plan; 3) an analysis plan; and 4) staffing requirements.

10.1.1 Monitoring Indicators and Thresholds

The indicators and thresholds included in the monitoring plan for the High Peaks Project Area are summarized in Table 10. These indicators and thresholds were selected by NYSDEC to guide long-term monitoring and adaptive management of visitor use in the High Peaks Project Area. See *Section 7. Indicators and Thresholds* for more detailed information about the process and rationale for selecting these indicators and thresholds for the High Peaks Project Area.

Table 10. Monitoring indicators and thresholds for the High Peaks Project Area.

Indicator	Threshold
People-per-viewscape (PPV): • Mt. Marcy summit • Cascade Mountain summit • Algonquin summit	There will be fewer than 10 PPV in the designated summit viewscape 90% of sampled times.
Intergroup encounters per hour: *Destination-oriented trails* • Van Hoevenberg Trail to Mt. Marcy (Adirondak Loj trailhead to the 50-meter bridge) • Algonquin Trail (Adirondak Loj trailhead to Wright Trail junction) • Phelps Trail (The Garden trailhead to Johns Brook Lodge) • Calamity Brook Trail (Upper Works trailhead to Lake Colden) • Street and Nye Trail (trail to both summits from the Indian Pass from Heart Lake Trail) *Other trails* • Indian Pass Trail (Upper Works trailhead to Cold Brook Trail junction)	**Destination-oriented trails:** Visitors will have fewer than 6 to 9 intergroup encounters per hour while hiking on destination-oriented trails on 90% of sampled hikes.[51] **Other trails:** Visitors will have fewer than 2 intergroup encounters per hour while hiking on other trails on 90% of sampled hikes.
Vehicles-at-one-time (VAOT): • Adirondak Loj parking lot and adjacent overflow areas • Adirondack Loj Road roadside • Meadows Lane parking lots and adjacent overflow areas • Meadows Lane roadside	**Parking lots and adjacent overflow areas:** The maximum daily VAOT at each monitoring location will be no greater than the design capacity of the parking lot in that location 99% of sampled days. **Roadsides:** No vehicles will be parked on roadsides 99% of sampled times.

10.1.2 Sampling Plan

The 2023 onsite data collection conducted as part of the NYSDEC Visitor Use Management Pilot Project provides a baseline that establishes current conditions prior to implementing visitor use management strategies outlined in *Section 9. Management Strategies*. The first cycle of onsite visitor use monitoring in the High Peaks Project Area should be conducted in conjunction with the implementation of the managed access strategies presented in *Section 9. Management Strategies* or no later than summer 2027. Subsequently, onsite visitor use monitoring should occur in conjunction with significant changes to visitor use management strategies and no less frequently than every three years. In addition, vehicle traffic and trail use counts should be conducted on an ongoing, permanent basis according to the detailed protocols and procedures presented in *Section 10.2.4 Vehicle Traffic and Trail Use Counts*.

[51] Specific threshold will depend on the selected trails for monitoring.

During each monitoring cycle, onsite visitor use monitoring should be conducted according to the sampling plan in Table 11. Over time, the plan may need to be adapted based on monitoring results from previous monitoring cycles and other factors. For each indicator, the sampling plan specifies:

Measurement: The measurement is the type and unit of data to be collected for the indicator. The measurements are described in greater detail in the monitoring protocols for each indicator.

Sampling Interval: The sampling interval specifies the frequency with which measurements are recorded for the indicator. In the case of intergroup encounters, the sampling interval is event-based (i.e., one cumulative observation per hiking patrol). For all other indicators, the sampling intervals are expressed as time intervals between measurements.

Sampling Days: The sampling plan specifies the minimum number of sampling days during which monitoring data should be collected for the indicator in each monitoring cycle. All monitoring should occur on fair weather days on weekends and holidays and during the period between the Fourth of July Holiday Weekend and Labor Day Weekend.[52]

Sampling Hours: The sampling plan specifies the minimum number of hours per sampling day monitoring data should be collected for the indicator. All monitoring should occur between 7:00 a.m. and 6:00 p.m.

Daily Sample Size: The daily sample size is the number of measurements or observations recorded per sampling day for the indicator. It is a function of the sampling interval and number of sampling hours per day for the indicator. In the case of intergroup encounters, there is a single observation per hiking patrol. For all other indicators there is one or more observations per hour.

Table 11. Sampling plan for visitor use monitoring in the High Peaks Project Area.

Indicator	Measurement	Sampling interval	Sampling days	Sampling hours	Daily sample size
People-per-viewscape (PPV)	PPV count	Once every 5 minutes	5 days per location, per cycle	5 hours per location, per day	60 counts per location, per day
Intergroup encounters per hour	Number of groups encountered during hiking patrol, total duration of hiking patrol	Once per hiking patrol	5 days per location, per cycle	2 hiking patrols per location, per day (1 each during AM and PM hours)[53]	2 observations per location, per day (1 per hiking patrol)
Vehicles-at-one-time (VAOT)	VAOT count	Once per hour	10 days per location, per cycle	8 hours per location, per day	8 counts per location, per day

[52] Additional monitoring on weekdays may be warranted if resources are available.
[53] On each sampling day, alternate AM and PM hiking patrols for trails in close proximity to each other (e.g., Indian Pass Trail and Calamity Brook Trail; Van Hoevenberg Trail to Mt. Marcy, Algonquin Trail, and Street and Nye Trail) to maximize sampling efficiency.

10.1.3 Analysis Plan

At the completion of each cycle of onsite monitoring, the monitoring data should be analyzed and assessed in relation to the threshold for each indicator. Table 12 summarizes key parameters of an analysis plan for each indicator, including:

Summary Statistic: The summary statistic is the type and unit of measurement of the statistic to compute from the monitoring data to use as a basis of comparison against the threshold value and threshold statistic for the indicator.

Threshold value: The threshold value expresses the quantity component of the threshold for the indicator. It is the value used as the basis to calculate the summary statistic for the indicator.

Threshold Statistic: The threshold statistic expresses the frequency component of the threshold for the indicator. The summary statistic should have a frequency equal to or greater than that of the threshold statistic.

Sample Size for Assessment: The sample size for the assessment is the number of measurements or observations recorded for the indicator, per monitoring location, during the monitoring cycle based on the sampling plan in Table 11. It is a function of the unit of measurement for the summary statistic, the number of sampling days and hours in the monitoring cycle, and the sampling interval for the indicator.

Table 12. Analysis plan parameters for monitoring indicators for the High Peaks Project Area.

Indicator	Summary statistic	Threshold value	Threshold statistic	Sample size for assessment
People-per-viewscape (PPV)	% of PPV counts less than threshold value	10 PPV	90% of PPV counts less than threshold value	300 PPV counts
Intergroup encounters per hour: Destination-oriented trails	% of hiking patrols with encounter rate less than threshold value	6 to 9 intergroup encounters per hour[54]	90% of hiking patrols with encounter rate less than threshold value	10 hiking patrols
Intergroup encounters per hour: Other trails	% of hiking patrols with encounter rate less than threshold value	2 intergroup encounters per hour	90% of hiking patrols with encounter rate less than threshold value	10 hiking patrols
Vehicles-at-one-time (VAOT): Parking lots and adjacent overflow areas	% of sampling days with daily maximum VAOT no greater than threshold value	Designated capacity of the parking lot	99% of sampling days with daily maximum VAOT no greater than threshold value	10 daily maximum VAOT counts
Vehicles-at-one-time (VAOT): Roadsides	% of sampling days with daily maximum VAOT no greater than threshold value	No vehicles parked on roadsides	99% of sampling days with daily maximum VAOT no greater than threshold value	10 daily maximum VAOT counts

[54] Specific threshold will depend on the selected trails for monitoring.

10.1.4 Staffing Requirements

The following staffing resources will be required to implement the monitoring plan for the High Peaks Project Area:

Visitor use monitoring program coordinator: A designated visitor use monitoring coordinator will be required to direct and oversee implementation of the monitoring plan. This would likely be a quarter- to half-time commitment, year-round, except during onsite monitoring seasons and the subsequent analysis and reporting periods when it would be a full-time commitment. The visitor use monitoring coordinator role should be assigned to a permanent, professional member of the NYSDEC staff. The duties of the visitor use monitoring program coordinator should be included in the job description/requirements of the assigned staff member, rather than be treated as collateral duty. The monitoring coordinator would be responsible for scheduling, staffing, equipment deployment and maintenance, training, oversight, analysis, and reporting for the monitoring program.

Visitor use monitoring technicians: Visitor use monitoring technicians would be required on a cyclical (e.g., every three years or similar) and seasonal basis to collect onsite monitoring data. Monitoring technicians would be recruited, screened, hired, trained, and managed by the visitor use monitoring program coordinator to meet the requirements and needs for reliable and accurate monitoring data collection. As part of a staffing strategy for visitor use monitoring technicians, NYSDEC could consider developing an internship program or similar arrangement with its partners. It is anticipated that up to four visitor use monitoring technicians would be required for up to two months per monitoring cycle to conduct onsite monitoring according to the sampling plan in Table 11.

10.2 Monitoring Protocols and Data Collection Log Forms

The following sections present detailed monitoring protocols and data collection log forms for each of the indicators selected by NYSDEC for the High Peaks Project Area and for ongoing, permanent vehicle traffic and trail use counts.

10.2.1 People-Per-Viewscape (PPV) on Select Mountain Summits

The protocol and data collection log form for conducting observation-based PPV counts on select mountain summits are presented below.

Equipment and supplies

The following equipment and supplies are required to complete PPV data collection:

1. PPV data collection log form (1 per sampling day, with backups) and protocol
2. PPV viewscape reference image (laminated)
3. Writing utensil (pen or pencil and pencil sharpener, with backups)
4. Clipboard
5. Hand-held tally counter
6. Watch or cell phone (for current time while collecting data)
7. One-gallon Ziploc bag (to store log forms out of weather)
8. Personal items (e.g., clothing layers, sunglasses, sunscreen, water, food, etc.)

Before starting data collection

1. Arrive at the PPV count area at least 15 minutes prior to the start of the data collection period and position yourself at the "X" location depicted in Figure 35, Figure 36, or Figure 37, depending on the monitoring location. The target hours for data collection are 10:00 a.m. to 3:00 p.m. (5 hours total).

2. PPV count data will be collected at the following locations during a target 5-hour data collection time period:

    a. Mt. Marcy summit

    b. Cascade Mountain summit

    c. Algonquin summit

3. Complete the header information on the PPV data collection log form (excluding the "Departure Time").

4. Set the tally counter to zero.

5. Read the instructions below.

Collecting PPV count data

1. You will conduct an instantaneous count once every 5 minutes. Start the first count at the top of the designated hour.

2. At the start of each count, record the hour associated with the count in the "Time" column of the data collection log form.

3. Conduct an instantaneous count of the number of people in the PPV viewscape area (see Figure 38, Figure 39, or Figure 40, depending on the monitoring location) by visually scanning the area from left to right. Include only people in the PPV viewscape area in the count. Use the tally counter to register your count. The count should be taken while standing to ensure a clear and complete view of the entire PPV viewscape area.

4. Once you have completed the instantaneous PPV count, record the count from the tally counter in the "PPV Count" column of the data collection log form for the corresponding count interval.

5. If there were no visitors observed in the PPV viewscape area during a count, record a count of "0" – do not leave the cell blank.

6. Record comments in the "Comments" column of the data collection form, if applicable.

7. Reset the tally counter to zero.

8. Repeat Steps 2 through 7 every 5 minutes through the duration of the data collection period.

9. Record the "Departure Time" in the log form's header field upon completion of your last count for the day and update the weather and special events information as needed.

Additional considerations

1. Do your best to avoid counting visitors who enter the PPV viewscape area after you have already started a count. This is to approximate an instantaneous count of the number of people in the PPV viewscape area "at the moment" the count started.

2. Count every person who is at least partially (e.g., a person with one foot in the viewscape area and one foot outside the viewscape area) or is entirely in the PPV viewscape area during each count.

3. Take bathroom/comfort breaks during the time between count intervals, if possible.

4. Take all necessary safety precautions (e.g., in the event of a thunderstorm or other circumstance that poses risk to your personal safety), even if it means you need to discontinue data collection.

5. Draw a line through the "PPV Count" cell on the log form for any count that is missed. Record in the "Comments" cell the reason the PPV count period was missed (e.g., to take shelter from a thunderstorm, bathroom break, arrived late, left early, etc.).

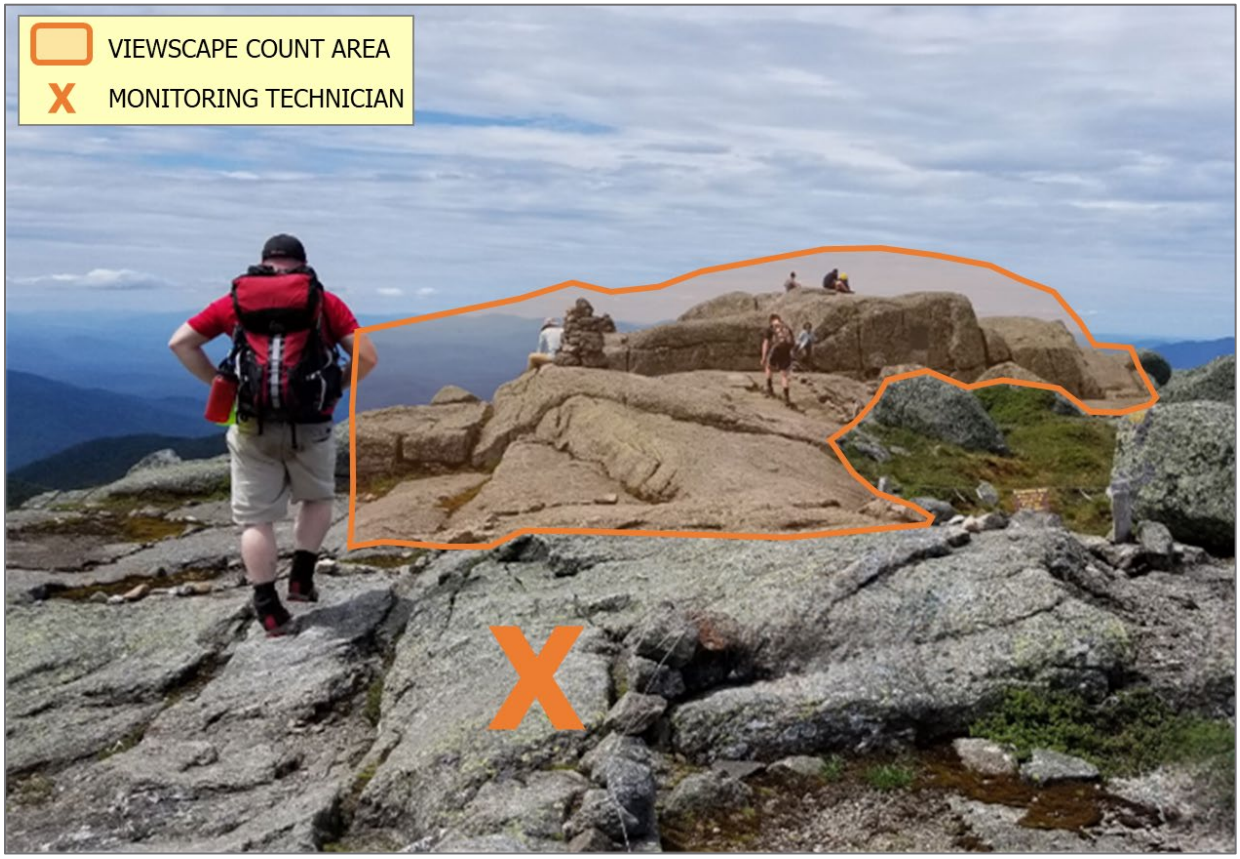


Figure 35. Schematic diagram of the monitoring location for PPV on Mt. Marcy summit.

Figure 36. Schematic diagram of the monitoring location for PPV on Cascade Mountain summit.

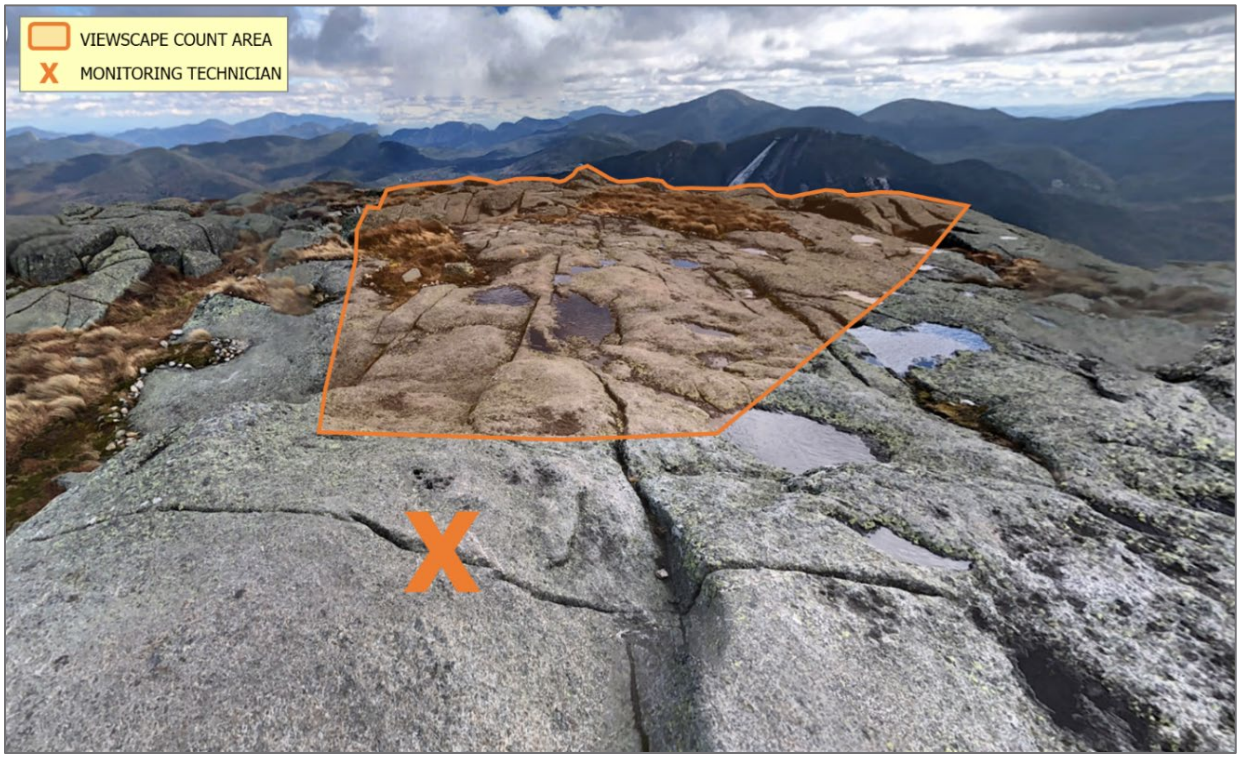


Figure 37. Schematic diagram of the monitoring location for PPV on Algonquin Peak summit.

Figure 38. Viewscape for monitoring PPV on Mt. Marcy summit.

Figure 39. Viewscape for monitoring PPV on Cascade Mountain summit.

Figure 40. Viewscape for monitoring PPV on Algonquin Peak summit.

Data collection log form

PPV Count Data Collection Log Form **Initials:** _____

Date: ____/____/_____ (mm/dd/yyyy) **Count Area:** Mt. Marcy / Cascade / Algonquin (circle one)

Arrival Time: _____:_____ (hh:mm; 24-hr.) **Departure Time:** _____:_____ (hh:mm; 24-hr.)

Weather: Sunny / Overcast / Rainy / Stormy (circle one)

Special Event: No / Yes (circle one; *if Yes* describe): _____

Row ID	Time	PPV Count	Comments
1	:00:00		
2	:05:00		
3	:10:00		
4	:15:00		
5	:20:00		
6	:25:00		
7	:30:00		
8	:35:00		
9	:40:00		
10	:45:00		
11	:50:00		
12	:55:00		
13	:00:00		
14	:05:00		
15	:10:00		
16	:15:00		
17	:20:00		
18	:25:00		
19	:30:00		
20	:35:00		
21	:40:00		
22	:45:00		
23	:50:00		
24	:55:00		
25	:00:00		
26	:05:00		
27	:10:00		
28	:15:00		
29	:20:00		
30	:25:00		
31	:30:00		
32	:35:00		
33	:40:00		
34	:45:00		
35	:50:00		
36	:55:00		

Row ID	Time	PPV Count	Comments
37	:00:00		
38	:05:00		
39	:10:00		
40	:15:00		
41	:20:00		
42	:25:00		
43	:30:00		
44	:35:00		
45	:40:00		
46	:45:00		
47	:50:00		
48	:55:00		
49	:00:00		
50	:05:00		
51	:10:00		
52	:15:00		
53	:20:00		
54	:25:00		
55	:30:00		
56	:35:00		
57	:40:00		
58	:45:00		
59	:50:00		
60	:55:00		

Enter the hour value for each PPV count interval using the 24-hr clock (e.g., record "14:10:00" for the interval starting at 2:10 PM).

Enter a ZERO (0) in the appropriate count cell if no visitors were present in the count area during the count period – **do not leave any cells blank.**

Draw a line through the PPV count cell of any count that was missed. Record in the "Comments" cell the reason the PPV count was missed (e.g., to take shelter from a thunderstorm, bathroom break, arrived late, left early, etc.).

Draw a line through any "Comments" cells that are not used – **do not leave any cells blank.**

Draw a line through any rows that are not used – **do not leave any rows blank.**

10.2.2 Intergroup Encounters Per Hour While Hiking on Select Trails

The protocol and data collection log form for conducting hiking patrol-based observations of intergroup encounters on select trails in the High Peaks Project Area are presented below.

Equipment and supplies

The following equipment and supplies are required to complete intergroup encounters data collection:

1. Intergroup encounters data collection log form (2 per sampling day, with backups) and protocol
2. Writing utensil (pen or pencil and pencil sharpener, with backups)
3. Clipboard
4. Watch or cell phone (for current time while collecting data)
5. One-gallon Ziploc bag (to store log forms out of weather)
6. Personal items (e.g., clothing layers, sunglasses, sunscreen, water, food, etc.)

Before starting data collection

1. Arrive at the designated access trailhead at least 30 minutes prior to the start of the data collection period (Figure 41).
2. Intergroup encounters observations will be collected at the following locations during a minimum 4-hour hike:[55]
    a. Van Hoevenberg Trail to Mt. Marcy (Adirondak Loj trailhead to the 50-meter bridge)
    b. Algonquin Trail (Adirondak Loj trailhead to Wright Trail junction)
    c. Phelps Trail (The Garden trailhead to Johns Brook Lodge)
    d. Calamity Brook Trail (Upper Works trailhead to Lake Colden)
    e. Street and Nye Trail (trail to both summits from the Indian Pass from Heart Lake Trail)
    f. Indian Pass Trail (Upper Works trailhead to Cold Brook Trail junction)
3. Complete the header information on the intergroup encounters data collection log form, excluding the “Hike Start Time” and “Hike End Time”.
4. Read the instructions below.

[55] Intergroup encounter observations will be collected on the trail to Cascade Mountain when the new trail is complete.

Collecting intergroup encounters data

1. At the start of each hiking patrol, record the current time as the "Hike Start Time" on the data collection log form.

2. Hike along the assigned section of trail highlighted in Figure 41 from the trailhead to the end of the highlighted trail section and then hike back to the trailhead. Hike the designated route at a normal hiking pace, similar to that of a "typical visitor" hiking on the trail.

3. Each time you encounter a group on the trail during the roundtrip hiking patrol, record the time of the encounter in the "Time" column and the number of people in the group in the "Group Size" column. Use a separate row on the data collection log form for each encounter, starting with Row ID 1.

4. Once you have completed your roundtrip hike and arrived back at the trailhead, record the current time as the "Hike End Time" on the data collection log form and update the weather and special events information as needed. Do not record any more group encounters on your data collection log form after this time.

Additional considerations

1. Only record encounters along the assigned section of trail highlighted in Figure 41.

2. Record an observation for each encounter with a group, including groups you previously encountered during the hiking patrol.

3. Record a group size of "1" for encounters with people who are hiking alone rather than in a group with other people.

4. Include encounters with groups you pass or are passed by while hiking in the same direction or in the opposing direction. If you are unsure if a number of individuals encountered are hiking in one or more groups, use your best judgement to define the group. If you cannot determine the size of an encountered group, record "DK" for "don't know" in the "Group Size" column.

5. Take all necessary safety precautions (e.g., in the event of a thunderstorm or other circumstance that poses risk to your personal safety), even if it means you need to discontinue data collection.

6. Draw a line through any extra rows on the data collection log form that were not used to record intergroup encounters.

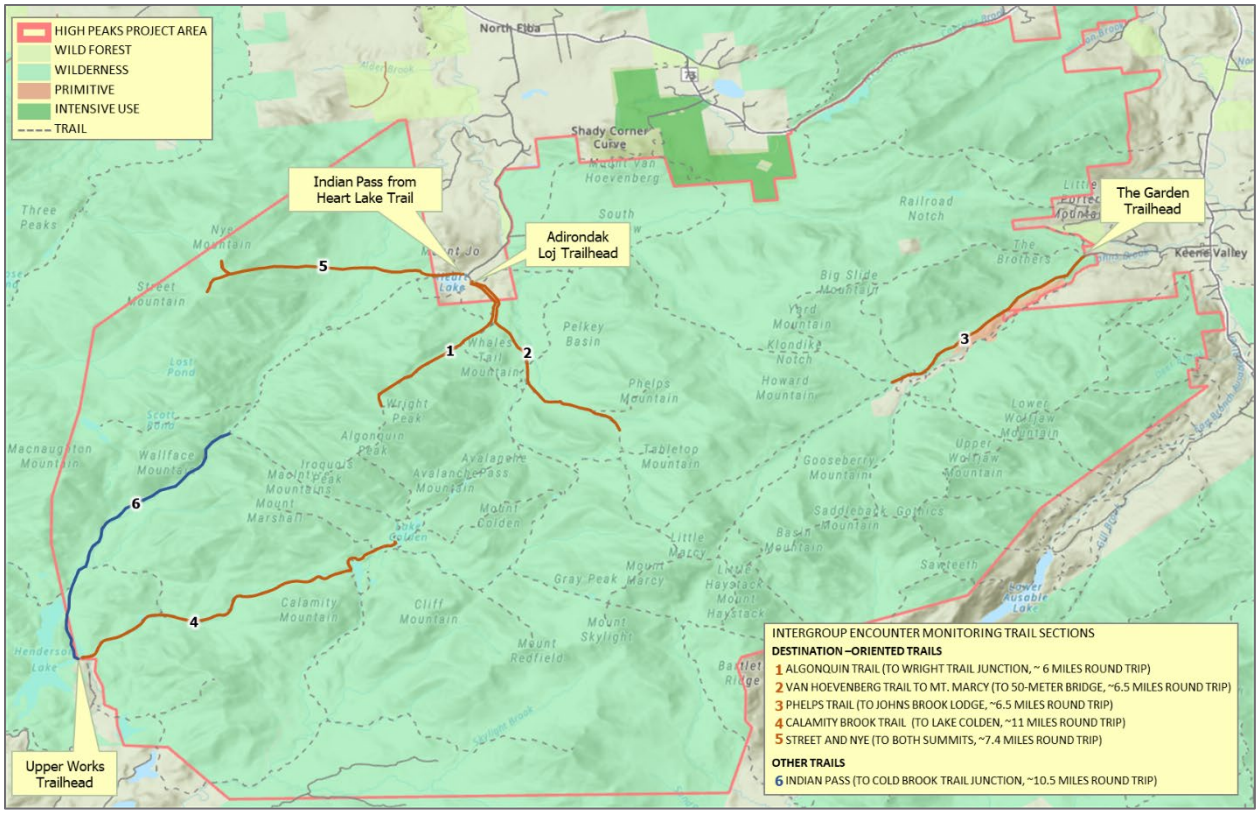


Figure 41. Selected trails for monitoring intergroup encounters per hour while hiking in the High Peaks Project Area.

Data collection log form

Intergroup Encounters Data Collection Log Form **Initials:** _____
Date: ____/____/_____ (mm/dd/yyyy) **Trail Segment:** Van Hoevenberg / Algonquin / Phelps / Calamity Brook / Street and Nye / Indian Pass (circle one)
Hike Start Time: _____:_____ (hh:mm; 24-hr.) **Hike End Time:** _____:_____ (hh:mm; 24-hr.)
Weather: Sunny / Overcast / Rainy / Stormy (circle one) **Special Event:** No / Yes (circle one; *if Yes* describe): _____

Row ID	Time (hh:mm; 24-hr.)	Group Size (# or DK)	Row ID	Time (hh:mm; 24-hr.)	Group Size (# or DK)	Row ID	Time (hh:mm; 24-hr.)	Group Size (# or DK)	Row ID	Time (hh:mm; 24-hr.)	Group Size (# or DK)	Row ID	Time (hh:mm; 24-hr.)	Group Size (# or DK)
1	:		21	:		41	:		61	:		81		
2	:		22	:		42	:		62	:		82		
3	:		23	:		43	:		63	:		83		
4	:		24	:		44	:		64	:		84		
5	:		25	:		45	:		65	:		85		
6	:		26	:		46	:		66	:		86		
7	:		27	:		47	:		67	:		87		
8	:		28	:		48	:		68	:		88		
9	:		29	:		49	:		69	:		89		
10	:		30	:		50	:		70	:		90		
11	:		31	:		51	:		71	:		91		
12	:		32	:		52	:		72	:		92		
13	:		33	:		53	:		73	:		93		
14	:		34	:		54	:		74	:		94		
15	:		35	:		55	:		75	:		95		
16	:		36	:		56	:		76	:		96		
17	:		37	:		57	:		77	:		97		
18	:		38	:		58	:		78	:		98		
19	:		39	:		59	:		79	:		99		
20	:		40	:		60	:		80	:		100		

Draw a line through any rows that are not used – **do not leave any rows blank.**

10.2.3 Vehicles-At-One-Time (VAOT) in Select Parking Lots, Adjacent Overflow Areas, and Roadsides

The protocol and data collection log form for conducting observation-based VAOT counts in select parking lots, adjacent overflow areas, and roadsides in the Adirondack Loj Road Subregion of the High Peaks Project Area are presented below.

Equipment and supplies

The following equipment and supplies are required to complete VAOT data collection:

1. VAOT data collection log form (1 per sampling day, with backups) and protocol
2. Writing utensil (pen or pencil and pencil sharpener, with backups)
3. Clipboard
4. Hand-held tally counter
5. Watch or cell phone (for current time while collecting data)
6. Traffic safety vest
7. One-gallon Ziploc bag (to store log forms out of weather)
8. Personal items (e.g., clothing layers, sunglasses, sunscreen, water, food, etc.)

Before starting data collection

1. Arrive at the Adirondack Loj parking lot at least 15 minutes prior to the start of the data collection period.
2. VAOT count data will be collected hourly for eight hours per sampling day between 7:00 a.m. and 6:00 p.m. and at the following locations:
    a. Adirondak Loj parking lot and adjacent overflow area
    b. Meadows Lane parking lots and adjacent overflow areas
    c. Meadows Lane roadside
    d. Adirondack Loj Road roadside
3. Complete the header information on the VAOT data collection log form (excluding the “Departure Time”).
4. Read the instructions below.

Collecting VAOT count data

1. On each sampling day, begin the first and each subsequent hour of data collection at the Adirondak Loj parking lot and adjacent overflow area and then continue along the data

collection circuit presented in Figure 42 to collect VAOT counts at each monitoring location noted in Figure 42.

2. Start each hourly data collection circuit and count at the top of the designated hour.

3. At the start of each hourly data collection circuit, record the hour of the data collection circuit in the "Time" column of the data collection log form.

4. At each VAOT monitoring location on each hourly data collection circuit:

   a. Set the tally counter to zero.

   b. Conduct a roving count of the number of vehicles parked in the monitoring location using the tally counter.

   c. Once you have counted all the parked vehicles, record the count from the tally counter in the appropriate "VAOT Count" column of the data collection log form for the corresponding hour and count location.

   d. If there were no vehicles observed in the count area during a count, record a count of "0" – do not leave the cell blank.

   e. Record comments in the "Comments" column of the data collection form, if applicable.

   f. Move to the next monitoring location along the circuit and repeat Steps 4a through 4e until you have completed the circuit.

5. Repeat Steps 3 through 4f at the top of the next hour and each subsequent hour of the sampling day.

6. Record the "Departure Time" in the log form's header field upon completion of your last count for the day and update the weather and special events information as needed.

Additional considerations

1. If you park your vehicle within the VAOT count data collection area, do not include your vehicle in the count of parked vehicles.

2. Think of each hourly count as an "instantaneous count". Do not adjust your VAOT count to discount vehicles that leave after being included in your VAOT count. Similarly, do not adjust your VAOT count to add vehicles that arrive and park in a space that you've already passed while conducting your VAOT count.

3. Include all vehicle types in the counts of parked vehicles. Use the "Comments" column on the data collection log form to record information about any unusual circumstances.

4. Take bathroom/comfort breaks during the time between count periods, if possible.

5. Take all necessary safety precautions (e.g., in the event of a thunderstorm or other circumstance that poses risk to your personal safety), even if it means you need to discontinue data collection.

6. Draw a line through the “VAOT Count” cell on the log form for any count that is missed. Record in the “Comments” cell the reason the VAOT count was missed (e.g., to take shelter from a thunderstorm, bathroom break, arrived late, left early, etc.).

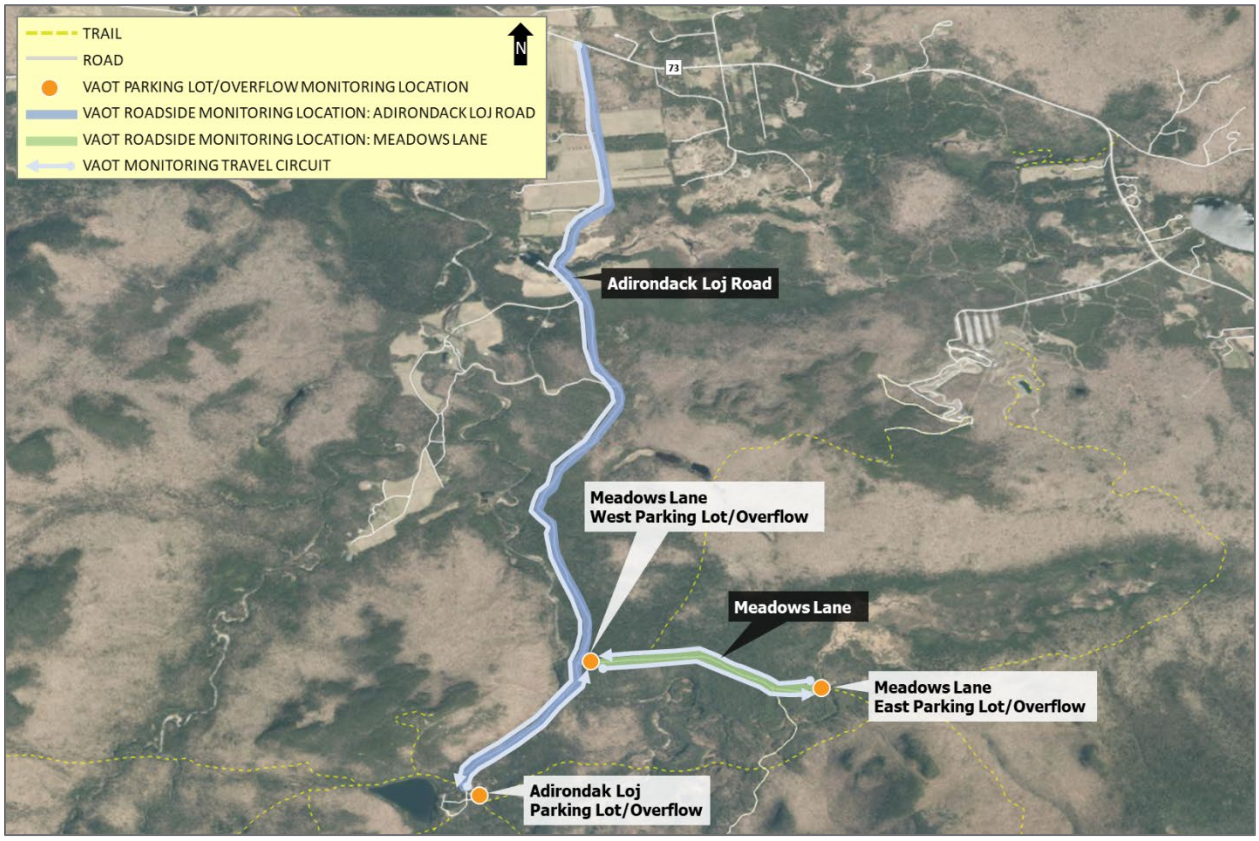


Figure 42. VAOT monitoring locations and travel circuit.

Data collection log form

VAOT Count Data Collection Log Form **Initials:** _____

Date: ____/____/_____ (mm/dd/yyyy)

Arrival Time: _____:_____ (hh:mm; 24-hr.) **Departure Time:** _____:_____ (hh:mm; 24-hr.)

Weather: Sunny / Overcast / Rainy / Stormy (circle one)

Special Event: No / Yes (circle one; *if Yes* describe): _____

Row ID	Time	VAOT Count					Comments
		Adirondak Loj Parking Lot/ Overflow	South Meadows West Parking Lot/Overflow	South Meadows East Parking Lot/Overflow	South Meadows Road	Adirondack Loj Road	
1	:00						
2	:00						
3	:00						
4	:00						
5	:00						
6	:00						
7	:00						
8	:00						

Enter the hour value for each data collection circuit in the "Time" column using the 24-hr clock (e.g., record "14:00" for the circuit starting at 2:00 PM).

Enter a ZERO (0) in the appropriate VAOT count cell if there were no parked vehicles during an hourly data collection circuit – **do not leave any cells blank.**

Draw a line through the cell of any VAOT count that was missed. Record in the "Comments" cell the reason the VAOT count was missed (e.g., to take shelter from a thunderstorm, bathroom break, arrived late, left early, etc.).

Draw a line through any "Comments" cells that are not used – **do not leave any cells blank.**

Draw a line through any rows that are not used – **do not leave any rows blank.**

10.2.4 Vehicle Traffic and Trail Use Counts

As noted, vehicle traffic and trail use counts should be conducted on an ongoing, permanent basis in the locations identified in Figure 43. Vehicle traffic and trail use counts should be recorded in hourly bins. In the case of the vehicle traffic counts, pneumatic tube counters rather than magnetometers should be used to record directional counts and to maximize accuracy. If magnetometers are used to record vehicle traffic counts, they must be calibrated and adjusted to estimate directionality. In the case of trail use counts, infrared trail counters should be used, and the raw counter data should be calibrated and adjusted to estimate directionality.

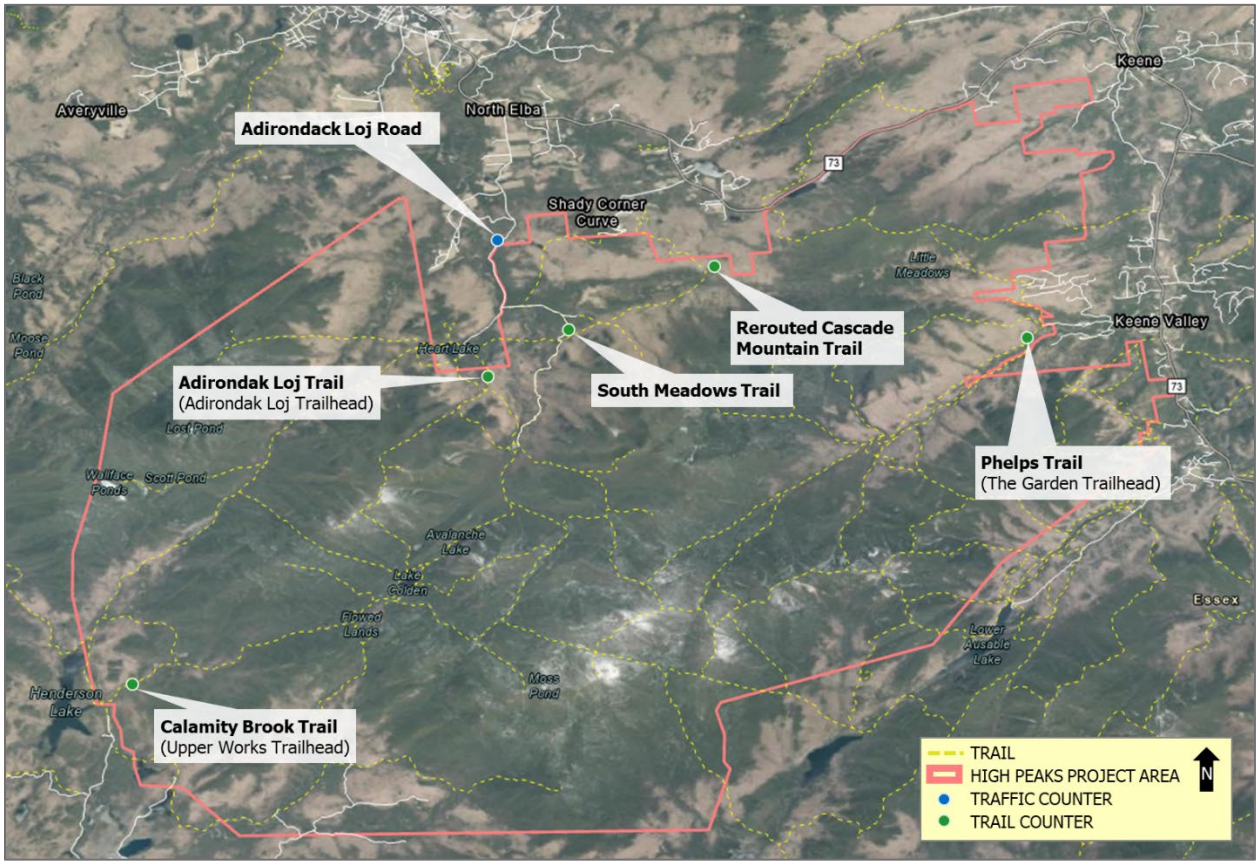


Figure 43. Locations for monitoring vehicle traffic and trail use in the High Peaks Project Area.

The protocol and data collection log form to conduct trail counter calibration counts are presented below.[56]

[56] If a magnetometer is used for vehicle traffic counts, the calibration methods should be adapted and applied to them as well.

Equipment and supplies

The following equipment and supplies are required to complete infrared trail counter calibration counts:

1. Counter calibration log form (1 per sampling day, with backups) and protocol
2. Writing utensil (pen or pencil and pencil sharpener; with backups)
3. Clipboard
4. Two hand-held tally counters
5. Watch or cell phone (for current time while collecting data)
6. Documentation and field grade GPS or cell phone to locate the counter equipment
7. One-gallon Ziploc bag (to store log forms out of weather)
8. Personal items (e.g., camp chair, clothing layers, sunglasses, sunscreen, food, water, etc.)

Before starting data collection

1. Arrive at the counting location at least 15 minutes prior to the start of the data collection period. The target hours for data collection are between 7:00 a.m. and 6:00 p.m.
2. Station yourself in an out of the way location near but not in front of or directly next to the trail counter where you could inadvertently trigger counts on the trail counter.
3. Complete the header information on the counter calibration log form (excluding the "Departure Time").
4. Read the instructions below.

Collecting trail counter calibration data

1. You will conduct counts in 30-minute time intervals. Start the first 30-minute interval count at the top of the designated hour.
2. At the start of each 30-minute interval count, set the tally counters to zero and record the hour of the count in the "Start" and "End" columns of the trail counter calibration log form.
3. Count the number of people passing the trail counter in the 30-minute time interval, by direction of travel ("Inbound" to the project area or "Outbound" out of the project area). Use one tally counter for inbound counts and the other for outbound counts.
4. At the end of each 30-minute count period, record the counts from the tally counters in the respective "Inbound" and "Outbound" columns of the counter calibration log form.
5. Record comments in the "Comments" column of the data collection form, if applicable.

6. Repeat Steps 2 through 5 every 30 minutes through the duration of the data collection period.

7. Record the “Departure Time” in the log form’s header field upon completion of your last count for the day and update the weather and special events information as needed.

Additional considerations

1. If the same person passes the trail counter multiple times, count them each time they pass the counter.

2. Count every person that passes the trail counter, even if multiple people pass the trail counter at the same time.

3. If a person sits or stands in front of the trail counter, record only one tally in the calibration count and note the behavior in the “comments” cell (e.g., one person standing in front of the trail counter for approximately XX minutes). Do not ask the person to move, as you are just an observer. Do nothing to influence the situation.

4. You can conduct observation-based calibration counts for one hour at a time or up to 10 hours at a time. Be sure to complete whole-hour counts in 30-minute intervals so that counts can be compared to the hourly-binned trail counter data.

5. Use the calibration counts and raw trail counter data, paired by date and hour of day to estimate a simple linear regression model. Enter the calibration counts into the model as the dependent variable and the raw trail counter data as the independent variable. Include an intercept term in the model. Use the resultant regression model intercept term and coefficient to calibrate the full set of raw trail counter data.

6. Estimate directionality by dividing the total daily calibrated count for each date by two, based on the assumption that use at the counting locations is “out and back” day use.

Data collection log form

Trail Counter Calibration Log Form **Initials:** _____
Date: ____/____/_____ (mm/dd/yyyy) **Trail Counter Location Name:** _____
Arrival Time: ____:____ (use 24-hr clock *hh:mm*) **Departure Time:** ____:____ (use 24-hr clock *hh:mm*)
Weather: Sunny / Overcast / Rainy / Stormy / Smoky *(circle one)*
Special Event: No / Yes (circle one; *if Yes* describe): _____

Row ID	Start	End	Inbound	Outbound	Comments
1	:00:00	:29:59			
2	:30:00	:59:59			
3	:00:00	:29:59			
4	:30:00	:59:59			
5	:00:00	:29:59			
6	:30:00	:59:59			
7	:00:00	:29:59			
8	:30:00	:59:59			
9	:00:00	:29:59			
10	:30:00	:59:59			
11	:00:00	:29:59			
12	:30:00	:59:59			
13	:00:00	:29:59			
14	:30:00	:59:59			
15	:00:00	:29:59			
16	:30:00	:59:59			
17	:00:00	:29:59			
18	:30:00	:59:59			

Enter the hour value for each calibration count interval using 24-hr clock (e.g., record "14:00:00" for the interval starting at 2:00 PM).

Enter a ZERO (0) in the appropriate count cell if no visitors passed the counter during a count interval – **do not leave any cells blank.**

Draw a line through the Inbound/Outbound count cells if a count period was missed. Record in the "Comments" cell the reason the count was missed (e.g., took shelter from a thunderstorm, bathroom break, etc.).

Draw a line through any "Comments" cells that are not used – **do not leave any cells blank.**

Draw a line through any rows that are not used – **do not leave any rows blank.**

References

Adirondack Council. (2021). *Adirondack High Peaks Wilderness Visitor Use Management Study Final Report*.

Adirondack Diversity Initiative. (2023). *ADI Visitor Use Survey Results*.

Adirondack Mountain Club. (2023). *High Peaks Information Center Visitors Tracker*.

Catskill Advisory Group. (2022). *Catskill Advisory Group Report*.

High Peaks Advisory Group. (2021). *High Peaks Advisory Group Final Report*.

Interagency Visitor Use Management Council. (n.d.). *Home*. Retrieved from https://visitorusemanagement.nps.gov/

Interagency Visitor Use Management Council. (2016). *Visitor Use Management Framework: A Guide to Providing Sustainable Outdoor Recreation*.

Interagency Visitor Use Management Council. (2019). *Monitoring Guidebook*.

Lawson, S. R., Newman, P., & Monz, C. (2017). A systems-based approach to address unintended consequences of demand-driven transportation planning in national parks and public lands. *International Journal of Sustainable Transportation, 11*(2), 98–108.

Lepore, S. J. (2012). Crowding: effects on health and behavior. In V. S. Ramachandran (Ed.), *Encyclopedia of Human Behavior* (2nd ed., pp. 638–643). Academic Press.

National Park Service. (2023). *Nisqually to Paradise Draft Corridor Management Plan*.

New York State Constitution. (1894). Article XIV Section I.

New York State Department of Environmental Conservation, & Adirondack Park Agency. (2021). *Draft Visitor-Use Management and Wildlands Monitoring of Forest Preserve Lands in the Adirondack Park*.

New York State Department of Environmental Conservation. (1999). *High Peaks Wilderness Complex Unit Management Plan*.

New York State Department of Environmental Conservation. (2018). *High Peaks Wilderness Complex Unit Management Plan Amendment*.

Open Space Institute, & New York Outdoor Recreation Coalition. (2020). *Open Spaces for All: A Vision for an Inclusive, Accessible, and Equitable Open Space System in New York State*.

Sequoia and Kings Canyon National Parks. (2015). *Wilderness Stewardship Plan and Final Environmental Impact Statement*.

State of New York. (1972). *Adirondack Park State Land Master Plan (APSLMP)*.

State of New York. (2019). *Adirondack Park State Land Master Plan (APSLMP)*.

Stokols, D. (1972). A social-psychological model of human crowding phenomena. *Journal of the American Institute of Planners, 38*(2), 72–83.

United States Department of Transportation Volpe National Transportation Systems Center. (2021). *New York State Adirondack High Peaks Region Shuttle Feasibility Study* (No. DOT-VNTSC-NYSDEC-21-01).

Appendix A—NYSDEC/APA Core Team Summary of Engagement

The following summarizes the NYSDEC/APA Core Team engagement activities and timeline (Table A-1).

Table A-1. NYSDEC/APA Core Team engagement activities and timeline for the High Peaks Project Area.

NYSDEC/APA Core Team engagement activity[57]	Date
Project Kickoff	January 2023
NYSDEC/APA Core Team Workshop #1: Build the Foundation	February 2023
NYSDEC/APA Core Team Workshop #2: Define the Visitor Use Management Direction	May 2023
NYSDEC/APA Core Team Workshop #3: Identify Management Strategies Part I	November 2023
Data Results Workshop I	November 2023
Data Results Workshop II	February 2024
Indicators Facilitated Discussion	March 2024
Thresholds Facilitated Discussion I	April 2024
Thresholds Facilitated Discussion II	June 2024
NYSDEC/APA Core Team Workshop #4: Identify Management Strategies Part II	August 2024

[57] All engagement activities with the NYSDEC/APA Core Team were conducted virtually.

Appendix B—High Peaks Visitor Use Management Project Stakeholder and Public Engagement Plan

ADIRONDACK PARK ▸ HIGH PEAKS
VISITOR USE MANAGEMENT

High Peaks Visitor Use Management Project
Stakeholder and Public Participation Plan

Project Description

The New York State Department of Environmental Conservation (NYSDEC) is undertaking a planning process to address visitor use management and visitor capacities. The VUM planning process will focus on the experiential, social, and public safety elements of visitor use management and visitor capacities, to promote sustainable visitor use. Over the next several months, the project team will engage State officials, stakeholders, and the public in outlining desired conditions and management strategies for the project area.

During the latter half of 2023, the process will focus on measuring and analyzing visitor use levels and patterns to determine how closely current conditions in the project area align with desired conditions for visitors' experiences and public safety. The second year of the contract will focus on developing management strategies aimed at helping DEC achieve and maintain desired conditions. The final project report will be provided to DEC that includes recommendations for monitoring and maintaining the effectiveness of the strategies over time.

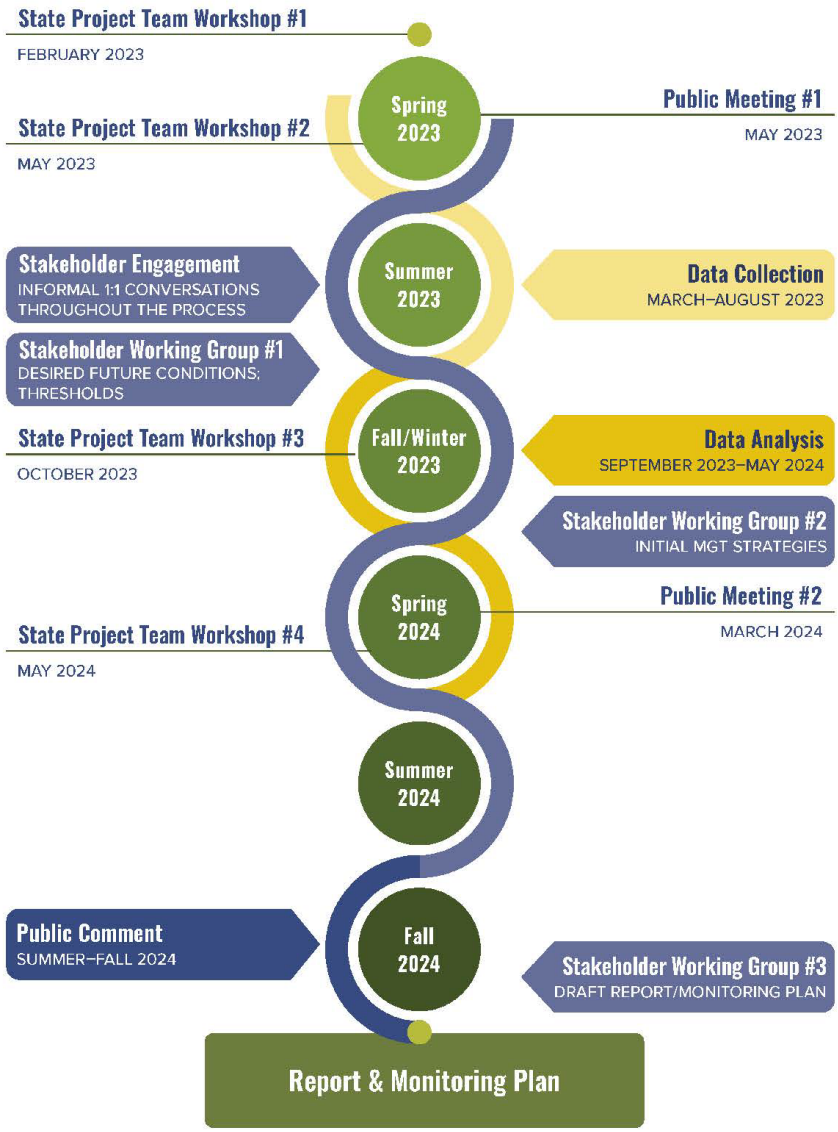
The Stakeholder and Public Participation Plan (Participation Plan) supports the ongoing project data collection and analysis and describes the objectives and tools for stakeholder and broader public engagement throughout the process. It is based in part on recommendations generated from independent stakeholder conversations convened by the Otak consultant team prior to and following the first High Peaks VUM public meeting on May 9, 2023.

Overview of the Process Map

The project is organized by data collection and analysis milestones projected to occur at seasonal intervals. Corresponding communication and stakeholder and public participation opportunities are identified for the projected milestones. This information is summarized below, and visually depicted in Figure 1.

- Spring 2023: Stakeholder Engagement
- Spring 2023: Public Meeting #1
- Summer 2023: Onsite Data Collection
- Fall 2023: Stakeholder Working Group—Meeting #1
- Fall/Winter 2023: Data Analysis
- Spring 2024: Stakeholder Working Group—Meeting #2
- Spring 2024: Public Meeting #2
- Summer 2024: Stakeholder and Public Comment on Draft Report
- Fall 2024: Stakeholder Working Group—Meeting #3
- Fall 2024: Final Report and Monitoring Plan

Figure 1. Process Map



Communication Goals

This plan details the communication goals, audiences, communication and engagement tools, and materials for the High Peaks VUM Project. Communications and engagement activities are intended to help achieve the following goals:

- Project roles and responsibilities are clearly communicated to stakeholders and the public.
- Stakeholders and the public understand the project recommendations and decisions they can inform and influence.
    - Provide meaningful, accessible, and equitable opportunities for stakeholders and the public to engage during the study period.
    - Demonstrate how stakeholder and public input informed analysis and recommendations.
- Project milestones and progress are clearly communicated to stakeholders and the public with opportunities for questions and timely follow up responses.
- NYSDEC and the Otak Consultant Team are trusted sources of project information.
    - Keep stakeholders and the public informed about the project to minimize concerns resulting from speculation and misinformation.
    - Communicate information in the clearest, least technical way possible.

Key Audiences

Key audiences are defined as ***public, stakeholders, interagency, and Tribes***. The **public** includes those potentially affected by or interested in the project. ***Stakeholders*** are defined as those with a technical, jurisdictional, and/or representative role who are potentially affected by or interested in the project. ***Interagency*** is defined as those with jurisdictional authority in the study area, and with whom close coordination is critical to the project's success.

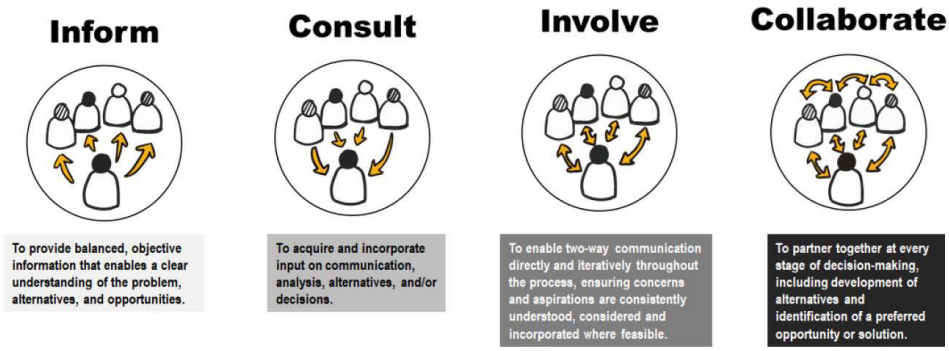
As sovereign governments, ***Tribes*** bring a valuable, indigenous perspective to this project. NYSDEC will serve as the primary contact with Tribes, and will consult with them in-person, in the field, and/or virtually based on the Tribe's preferences.

Appendix 1 contains a list of key audiences by category.

Engagement Methods

The engagement methods identified for this project are consistent with best practices adapted from the International Association for Public Participation's Spectrum, including engagement goals along a spectrum of "Inform" to "Collaborate" (Figure 2). These goals may be applied to any of the key audiences identified for this project. Goals are "cumulative"—for example, if you are 'involving' you are, by definition, 'informing' and 'consulting'.

Figure 2. Engagement Spectrum



The approach for each phase of the spectrum is described with appropriate tools in the table below. Communication materials for each tool are detailed in Appendix 3.

Table 1: Engagement Methods by Engagement Goal

Engagement Goal: INFORM		
Audience Category	Engagement tool	Approach
All	Project webpage	The High Peaks VUM project website will be a place to learn about the project, including its goals, schedule, current work, updates, and other information. The webpage will be updated at key project technical milestones and as needed.
	E-distribution	Project updates, announcements of public meetings, and other project news will be periodically distributed through an email distribution list, maintained by the Otak Team, of those who voluntarily provide their email information at public meetings, through communication with the project inbox (vum-facilitators@rossstrategic.com) and through the project website.
	Leveraged outreach opportunities	Capitalize on opportunities to share project information at events convened by others (Appendix C)
Stakeholders	Partner links	The Otak Team will coordinate with stakeholders and encourage them to provide links on their respective social media accounts to the High Peaks VUM project website, and to other project-related social media postings as information becomes available.

Tribes	Partner links	NYSDEC will coordinate with Tribes and encourage them to provide links on their respective social media accounts to the High Peaks VUM project website, and to other project-related social media postings as information becomes available.
Engagement Goal: Consult[1]		
Audience	**Engagement tool**	**Approach**
All	Project webpage	The High Peaks VUM project website will provide an opportunity to provide comments/feedback at any time.
Public	1:1 Conversations	NYSDEC and Otak Team members will engage in informal 1:1 conversations with local community members and the visiting public as opportunities arise to develop relationships, build authentic and mutual trust, share project information, and receive feedback.
Stakeholders	1:1 Conversations	NYSDEC and Otak technical team members will engage in informal 1:1 conversations with members of the stakeholders working group as opportunities arise to develop relationships, build authentic and mutual trust, share project information, and receive feedback. The VUM Facilitation Team will reach out to stakeholder group members in-between meetings and share input and feedback with the technical team.
Tribes	Informational conversations	NYSDEC will engage in informational conversations with Tribes as opportunities arise to develop relationships, build authentic and mutual trust, share project information, and receive feedback. *Formal, government-to-government consultation will occur as needed and requested, outside of this process.*

[1] Engagement goal of "consult" not to be confused with Tribal/NYSDEC formal government-to-government "consultation."

Engagement Goal: Involve		
Audience	Engagement tool	Approach
Public	Public Meetings	Conduct public meetings to provide updates on the project, respond to questions, and collect feedback. [2]
Stakeholders	High Peaks VUM Stakeholder Working Group	The Stakeholder Working Group (SWG), convened by the Otak Team, includes up to 20 people with a technical, jurisdictional, and/or representative role who are potentially affected by or interested in the project. See Appendix 2 for participants). The purpose of the SWG is to inform project recommendations by engaging a diverse group of organizational representatives in focused project-specific discussions, and individually and collectively provide insight, input, values, and feedback. SWG members also serve as a conduit for information to and from affiliated organization members.
Tribes	Government-to-government consultation	NYSDEC will formally meet as needed and requested by Tribes to develop relationships, build authentic and mutual trust, and share project information.
Engagement Goal: Collaborate		
Audience	Engagement tool	Approach
Interagency	State Project Team (Core Team)	NYSDEC, with its state partner the Adirondack Park Agency, will work with the Otak Team to collaborate on all process decisions throughout the study period.

Communication Mechanisms and Materials

Notifications and other distributions of information will occur through a variety of mediums to keep stakeholders and the public informed of upcoming project milestones and events. The **Otak Team** will also maintain an email distribution list of those who voluntarily provide their email information at public meetings, through communication with the project inbox (vum-facilitators@rossstrategic.com) and through the project website.

[2] The first public meeting on May 9, 2023, was held in Saranac, NY as an in-person meeting only. Public feedback made a strong case to provide virtual opportunities for visitors living outside the area and without reasonable access to in-person meetings held near the study site. A virtual option will be considered for the Spring 2024 public meeting.

The project website, www.highpeaksvum.com, maintained by the **Otak Team** will serve as the primary source of project information, milestones, and notifications of related events. It will also be used as a platform to receive public comment and questions throughout the process.

NYSDEC will use its networks, distribution lists, and social media platforms to help ensure stakeholders and the public receive project information through outlets such as its webpage, periodic e-news, personal contacts, local news outlets, and state and local government updates.

The **High Peaks VUM Stakeholder Working Group** members will be equipped with information to share with their members and networks about the project.

Informational and analytical materials developed in association with the project will be used to help meet communication goals. A list of communication materials is included in Appendix 3, and will be periodically updated as the project progresses and based on communication needs.

Appendix 1: Key Audiences[3]

Audience	Organization / Affiliation
Public	Project distribution list (maintained by the Otak Team) Media/social media outlets Communities within/adjacent to the study area
Stakeholders	Adirondack 46ers Adirondack Climbers' Coalition Adirondack Council Adirondack Diversity Initiative Adirondack Mountain Club Adirondack Wild: Friends of the Forest Preserve Adirondack Wilderness Advocates Ausable Club Barkeater Trail Alliance Olympic Regional Development Authority Protect the Adirondacks Regional Office of Sustainable Tourism SUNY College of Environmental Science and Forestry Town of Keene Town of Newcomb Town of North Elba Town of Keene
Partner agencies/entities	Adirondack Park Agency
Tribes	As determined by NYSDEC's consultation with Tribes

[3] This list will be updated as additional interests emerge.

Appendix 2: High Peaks Stakeholder Working Group

Organization	Representative
Adirondack 46ers	Laurie Rankin
Adirondack Climbers' Coalition	Will Roth
Adirondack Council	Jackie Bowen
Adirondack Diversity Initiative	Tiffany Rea-Fisher
Adirondack Mountain Club	Julia Goren
Adirondack Wild: Friends of the Forest Preserve	David Gibson
Adirondack Wilderness Advocates	Pete Nelson
Ausable Club	John Schuler
Olympic Regional Development Authority	Emma Lamy
Protect the Adirondacks	Peter Bauer
Regional Office of Sustainable Tourism	Mary Jane Lawrence
SUNY College of Environmental Science and Forestry	(To be determined)
Town of Keene	Joe Pete Wilson
Town of Newcomb	David Hughes
Town of North Elba	Derek Doty

Appendix 3: Communication materials

Materials	Timing	Location
1. News releases	Posted same day they are released by NYSDEC	Website
2. Frequently asked questions	Posted as they emerge	Website
3. Process road map	Updated periodically as needed	Website
4. Meeting materials a. Summaries b. Presentations c. Other	As meetings occur. Presentation materials posted the day following each public/stakeholder meeting.	Website
5. Data / analytical reports	Posted as they become publicly available	Website
6. Foundational VUM information	Referenced throughout the duration of project	Interagency VUM Website

Appendix 4: "Leveraged" Outreach Opportunities

(potential opportunities to share project information at events convened by others)

Event Name	Host	Date/Time/Location	Key Audience
Adirondack Park Agency meetings	APA	3 or 4 times annually	Public
Others to be determined as opportunities arise			

Appendix C—Stakeholder Working Group Members and Summary of Engagement

The following identifies the Stakeholder Working Group members for the High Peaks Project Area and summarizes the Stakeholder Working Group engagement activities and timeline (Table C-1 and Table C-2).

Table C-1. Stakeholder Working Group members for the High Peaks Project Area.

Name	Affiliation
Laurie Rankin	Adirondack 46ers
Will Roth, Jeremy Haas	Adirondack Climbers' Coalition
Jackie Bowen	Adirondack Council
Tiffany Rea-Fisher	Adirondack Diversity Initiative
Julia Goren	Adirondack Mountain Club
David Gibson	Adirondack Wild: Friends of the Forest Preserve
Pete Nelson	Adirondack Wilderness Advocates
John Schuler, Roger Roumpf	Ausable Club
Emma Lamy	Olympic Regional Development Authority
Peter Bauer	Protect the Adirondacks
Mary Jane Lawrence	Regional Office of Sustainable Tourism
David Rosenbaum	SUNY College of Environmental Science and Forestry
Joe Pete Wilson	Town of Keene
David Hughes	Town of Newcomb

Table C-2. Stakeholder engagement activities and timeline for the High Peaks Project Area.

Stakeholder engagement activity	Date
Stakeholder Discussion (virtual)	March 2023
Stakeholder Working Group Meeting #1 (in-person)	October 2023
Data Results Workshop I (virtual)	February 2024
Data Results Workshop II (virtual)	March 2024
Stakeholder Working Group Meeting #2 (in-person)	March 2024
Stakeholder Working Group Meeting #3 (in-person)	July 2024
Stakeholder Working Group 1:1 Conversations (virtual)	Ongoing

Appendix D—Summary of Public Engagement

The following table summarizes the public engagement activities and timeline for the High Peaks Project Area (Table D-1).

Table D-1. Public engagement opportunities and timeline for the High Peaks Project Area.

Public engagement opportunity	Date
Public Website	May 2023 and ongoing
Public Meeting #1 – in-person	May 2023
Public Meeting #2 – virtual	June 2024

Appendix E—Summary of Onsite Data Collection Effort for the High Peaks Project Area

The following data were collected to describe visitor use conditions and related impacts in the High Peaks Project Area during the 2023 summer visitor use season (see Figure E-1 for data collection locations):

- **Directional vehicle traffic volumes** were recorded on **Adirondack Loj Road** by a traffic counter deployed by NYSDOT. The traffic volume data were recorded 24 hours per day from May 26 through October 24, 2023.
- **Hourly parking accumulation** at the **Adirondak Loj parking lot,** the **Meadows Lane parking lots,** along **Meadows Lane,** and along **Adirondack Loj Road** was estimated[58] from 8:00 a.m. to 2:00 p.m. on Thursdays through Sundays between August 4 and August 20, 2023 (11 days total).
- **Hourly parking accumulation** at the **Cascade Mountain trailhead parking lot and roadside parking area** and at **The Garden parking lot** was recorded as counts of parked vehicles from 8:00 a.m. to 2:00 p.m. on Thursdays through Sundays between August 4 and August 20, 2023 (11 days total).
- **Visitor use volumes** were recorded in hourly bins by infrared trail counters temporarily installed on the **Van Hoevenberg Trail** leading out from the Adirondak Loj parking lot just beyond the state land boundary, on the **Marcy Dam Truck Trail** just beyond the **South Meadows trailhead**, on the trail to **Cascade Mountain,** on the **Phelps Trail** just beyond The Garden trailhead, and on the **Calamity Brook Trail** just beyond the Upper Works trailhead. The trail use volume data were recorded in 24-hour bins per day and are reported for June 30 through September 4, 2023, in this report.
    - Motion-activated trail cameras were also co-located with infrared trail counters to record calibration data. A sample of 20 hours of calibration data were post-processed and used in regression models to derive correction factors (i.e., calibration multipliers) to convert raw hourly trail counter data to estimates of actual visitor use. Hourly estimates were then aggregated at the daily level, divided in half to account for inbound and outbound travel patterns, and presented as daily summaries.
- **Visitor use patterns and durations of stay** were estimated using GPS devices administered to randomly selected visitor groups arriving at the Adirondak Loj trailhead from 7:00 a.m. to 2:00 p.m. on select Thursdays through Sundays between August 4 and August 20, 2023 (eight days total, N=304, 100% response rate).
- **Visitor surveys** were administered to visitor groups exiting the **Van Hoevenberg Trail** just before the Adirondak Loj parking lot from 11:00 a.m. to 6:00 p.m. on select Thursdays through Sundays between August 4 and August 20, 2023 (seven days total, N=217, 76% response rate). The visitor survey included a series of questions to measure visitor-based crowding tolerances using a photo simulation exercise depicting

[58] Hourly parking accumulation was estimated by calculating the cumulative sum of an observation-based initial count of all vehicles parked inbound from the NYSDOT traffic counter (i.e., in the Adirondak Loj parking lot, in the Meadows Lane parking lots, along Meadows Lane, and along Adirondack Loj Road) just before 8:00 a.m. and the difference of hourly inbound and outbound vehicle traffic volumes recorded by the NYSDOT traffic counter for each subsequent hour.

varying numbers of people in the Mt. Marcy summit viewscape. The visitor survey also documented visitors' characteristics, perspectives about their experiences, and support for potential management options.

- **Visitor surveys** were administered to visitor groups exiting the trail to **Cascade Mountain** from 11:00 a.m. to 6:00 p.m. on select Thursdays through Sundays between August 4 and August 20, 2023 (five days total, N=174, 82% response rate). The visitor survey included a series of questions to measure visitor-based crowding tolerances using a photo simulation exercise depicting varying numbers of people in the Cascade Mountain summit viewscape. The visitor survey also documented visitors' characteristics, perspectives about their experiences, and support for potential management options.
- **PPV counts** were conducted via direct observation in the **Mt. Marcy summit viewscape** depicted in Figure 4. PPV counts were recorded on 10-minute intervals from 10:00 a.m. to 4:00 p.m. on select Fridays and Saturdays between August 5 and September 30, 2023 (eight days total).
- **PPV counts** were conducted via direct observation in the **Cascade Mountain summit viewscape** depicted in Figure 5. PPV counts were recorded on 10-minute intervals from 9:00 a.m. to 2:00 p.m. on Thursdays through Sundays between August 4 and August 20, 2023 (11 days total).

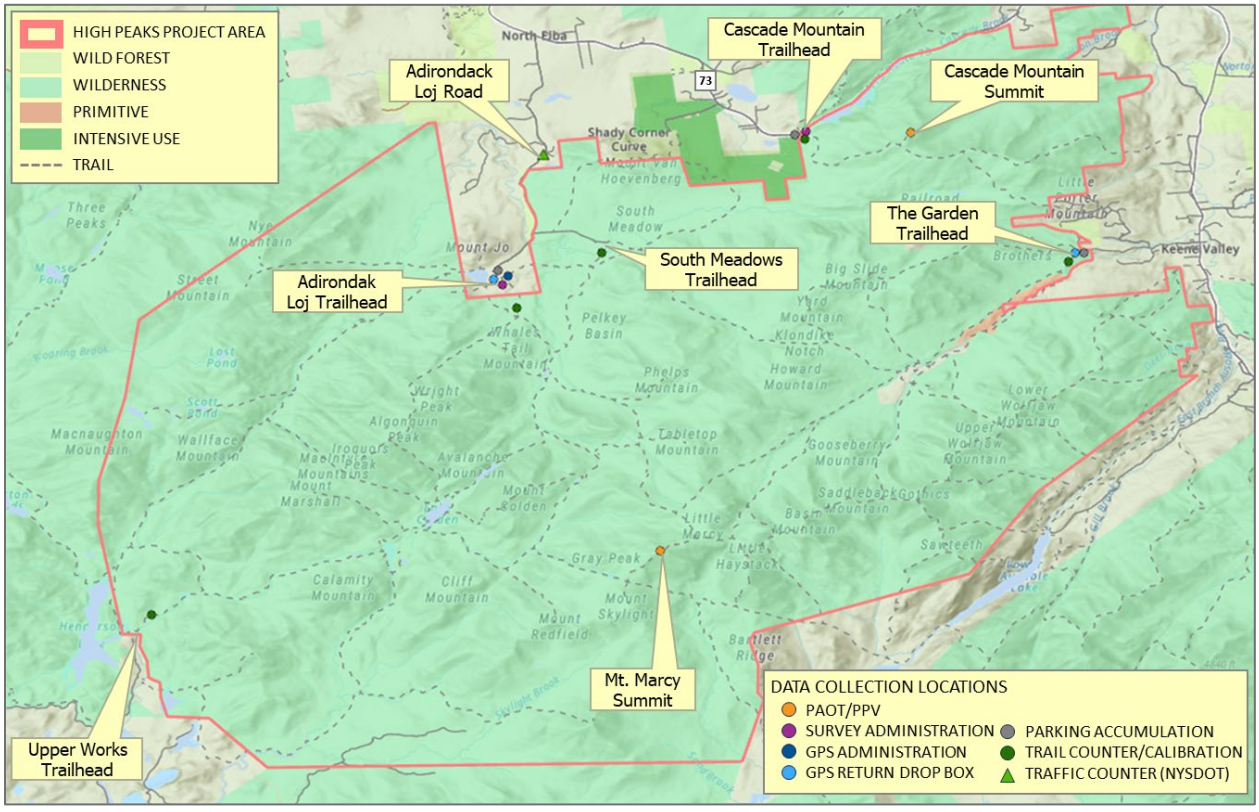


Figure E-1. Types and locations of 2023 onsite data collection in the High Peaks Project Area.

Appendix F—Indicators Considered but Not Selected

This Appendix reports ideas that were suggested as potential indicators during meetings with the NYSDEC/APA Core Team, the Stakeholder Working Group, and/or the public but not selected for adoption by NYSDEC. The potential indicators included in this section were not selected for a combination of the following reasons:

- Some of the ideas suggested do not meet the criteria for "good indicators" as described by the U.S. Interagency Visitor Use Management Council. For example, some items are subjective in nature, not specific, and/or not directly related to manageable attributes of recreation use.
- Some of the ideas suggested are addressed with the indicators included among those selected. For example, "incidents of pedestrians on select roadways" meets the criteria of a good indicator. However, the VAOT indicator selected by NYSDEC provides a basis to monitor the occurrence of roadside and overflow parking, in and of itself, as well as the related likelihood of pedestrians walking on roadsides.
- Some of the ideas suggested are potential resource-related indicators, which are not part of the scope of this project.
- After consulting with the National Park Service Visitor Use Management Program, the idea of including an indicator related to search and rescue incidents was removed from the list of selected indicators. The relationship between the number of search and rescue incidents and manageable attributes of recreation use is confounded by several factors, particularly staffing. The National Park Service noted that for this reason, they systematically advise parks not to include a search and rescue indicator as part of their visitor use monitoring plans. That said, NYSDEC will continue to document search and rescue incidents to help inform Forest Preserve management and operations more generally. The relationship between the incidence of traffic accidents and manageable attributes of recreation use is similarly confounded by a number of factors, including weather, driver characteristics, speed, and road geometry.

The list of other ideas suggested but not selected as indicators is as follows:

- Access (parking, restrooms, trail conditions)
- Incidents of pedestrians on select roadways
- Search and rescue incidents
- Traffic accidents
- Amount of visitor-to-visitor conflict
- Visitor preferences for management rules and regulations
- Visitor preferences for resource conditions
- Visitor return rate; occupancy tax
- Correlations between trail use volume and impact on ecological conditions
- Inspiration that results in action

- Inspiration to learn from the experience, to take personal action, and to be more prepared on the next visit
- Existence and utilization of educational infrastructure