

**MUIR WOODS NATIONAL MONUMENT RESERVATION SYSTEM
ENVIRONMENTAL ASSESSMENT
ERRATA AND RESPONSE TO COMMENTS
December 2015**

INTRODUCTION

These Errata were prepared as an attachment to the Environmental Assessment which was released for public review from October 23 to November 22, 2015. The corrections described herein do not change the project activities nor increase the degree of impact described in the EA. Necessary changes to the text and explanations are provided below, followed by responses to comments received from individuals, groups, and government agencies.

The National Park Service (NPS) prepared an Environmental Assessment (EA) to analyze the potential effects of alternatives related to managing visitation to Muir Woods National Monument (Muir Woods). This EA describes and analyzes two alternatives; one action alternative and one no-action alternative. The purpose of the proposed action is to reduce peak visitation levels at Muir Woods by managing motorized vehicle access in order to achieve, in part, the Redwood Creek Watershed Vision for the Future (http://www.nps.gov/goga/learn/management/upload/10-23-15_GGNPC_RCWC_Vision-Book-05a-1.pdf) , and to meet goals identified in the General Management Plan (GMP). The proposed action would allow the park to manage demand for parking both within the monument's parking lots and on the adjacent road (Muir Woods Road which is owned and managed by the County of Marin). Access would be managed to a level that meets goals while providing visitors with a high quality arrival experience. The proposed action would also reduce the visitor crowding and traffic congestion currently experienced during peak periods at Muir Woods.

On October 23, 2015 the Muir Woods National Monument Reservation System Environmental Assessment was released for public review. A formal 30-day comment period closed on November 22, 2015. The EA was circulated to local, state, and federal agencies, interested organizations, and individuals to allow review and comment on the report. Publication of the EA on the National Park Service Planning, Environment and Public Comment (PEPC) website (<http://parkplanning.nps.gov/>) marked the beginning of the public comment period during which written comments were accepted.

The Selected Alternative is "Alternative B – Proposed Action/Preferred Alternative".

CHANGES TO TEXT OF THE EA

Page 4, 1st paragraph under "Alternative B – Proposed action-Preferred Alternative" heading, 3rd sentence – Delete the repeated word "~~through~~" before the phrase "directly through",

Page 4, 4th paragraph, 2nd sentence – Add the phrase "and other transit operators" after "Marin Transit",

Page 5, 2nd bullet under "Phase 1" heading – Add the following sentence after the 3rd sentence of the paragraph: "Install wattles, erosion blankets, and other stormwater best management practices (BMPs) to minimize pollutants or sedimentation from shoulder areas."

Page 6, 1st bullet, 4th sub-bullet, under “Phase 2” heading –Delete the words “~~tour bus~~” and add the words “commercial vehicle”,

Page 15, last paragraph, 2nd sentence – Add the phrase “at or below levels in Figure 2” after the phrase “through the reservation system,”

Page 25, last bullet– Add a bullet following the last bullet on the page: “Save our Seashore”.

NPS RESPONSE TO PUBLIC COMMENTS

Comment Period and Number of Comments Received

The public comment and review period for the EA occurred from October 23 through November 22, 2015. Forty-five (45) comments were received including from two (2) government agencies (City of Mill Valley and Marin Transit), four (4) commercial tour operators, eleven (11) organizations, and twenty-eight (28) unaffiliated individuals. Of the commenters, 20 explicitly expressed support for the proposed action, and 2 explicitly expressed disapproval, with the remainder not stating a position explicitly. The summarized responses to comments below respond to the substantive comments related to the project scope. All comments are available on the project website.

Visitation Level

There were eight (8) comments regarding the level of visitation under the proposed action. Many cited the desire for an “evidence-based carrying capacity study” and that the forecast annual visitation under the proposed action is “completely arbitrary” and too high.

Response: The level of visitation identified in the proposed action is based on extensive study and experience in managing visitation at Muir Woods. The principal aims are to reduce peak period visitation, spread visitation more evenly across the day, and protect quieter seasons with lighter visitation. Visitation levels proposed by the NPS (Figure 2 in EA) are consistent with the Golden Gate National Recreation Area and Muir Woods National Monument General Management Plan/Environmental Impact Statement (GMP/EIS). The GMP/EIS established the indicators and standards to be used in managing use levels for Muir Woods. Chapter 7 of the GMP/EIS, titled *User Capacity*, includes specific performance indicators and standards to inform decision-making on levels of visitation. As described in the EA, these indicators and standards in the GMP/EIS, as well as the carrying capacity studies that informed them, form the basis of decision-making for Muir Woods.

The indicators for Muir Woods are associated with issues of resource protection and with crowding and congestion. The GMP establishes desired conditions, management levels, and standards for resources and visitor experience in the monument. The GMP focus is on user capacity for the different management zones within Muir Woods, but a need also exists to set and monitor overall monument user capacity planning ranges to support transportation planning and other initiatives at the monument. As a starting point for this effort, which is recognized as an ongoing process, the EA defines user capacity terms, summarizes relevant past research and data collection, provides an analytical basis for relating location-specific user capacity data to park use levels, and discusses strategies to monitor and manage those ranges to achieve desired resource conditions and visitor opportunities.

As described in the EA, the standards are related to both resource park resources (natural resources) and visitor experience. Each of these indicators and standards have specific thresholds (Appendix C of EA) that need to be monitored and tracked over time to ensure goals of the GMP are being met. None of the indicators or standards can be effectively tied to a specific annual visitation level. For most of the indicators and standards, daily or hourly visitation levels provide much more valuable data to base management decisions upon. In addition, hourly and daily monitoring can be more accurately aggregated to an annual level than an annual number can be disaggregated to an hourly or daily level. For this reason, hourly and daily levels were used in evaluating impacts in the EA. For indicators and standards that cannot be specifically tied to a numeric visitation level with statistical confidence (i.e. creation of social trails, invasive species), other measures will be used to monitor effectiveness in meeting goals such as number of social trails, number of invasive species occurrences, etc.

User Capacity Impact Analysis

There were two (2) comments that interpreted the description of impacts in the User Capacity Impact Analysis section to mean that the proposed action allowed for 10% of operational hours above the levels in Figure 2.

Response: This is not what the EA intends to suggest. The EA states that the GMP standards allow for crowding and congestion conditions to be exceeded no more than 10% of operational hours, and that the visitation levels in Figure 2 includes those exceedances. The proposed action is to manage the reservation system such that visitation will not exceed the visitation levels in Figure 2.

Safety

There were three (3) comments about safety concerns. These were focused primarily on commercial tour buses, the size of buses, the numbers of vehicles, and emergency access. Summary representative quotes include, "Does the NPS currently have and/or will there be bus size limitations on buses/commercial vehicles", and "I do not believe this plan is extensive enough to solve the serious and dangerous access problems from Highway 1, Muir Woods Road, and Shoreline Highway. I believe these access roads are woefully inadequate for a million visitors per year to travel. They are steep, winding, narrow, often dark and wet. There are no police in the areas, and cell phone access is limited. I believe this situation is a major traffic disaster waiting to happen."

Response: The NPS does not have the authority to set the size of vehicle that use the roads leading to Muir Woods. The current size limit of vehicles entering Muir Woods' parking lots is currently set to be consistent with agencies that own and operate the roads leading to Muir Woods. The County of Marin has an ordinance in place for Muir Woods Road requiring a maximum vehicle length of 36 feet, while the State of California has established a maximum vehicle size of 40 feet of Highway 1.

The proposed action provides reductions to daily and peak-hour vehicle trips through most of the year, particularly and most significantly during the highest visitation periods (June-August). Specifically, the proposed action is expected to reduce Muir Woods-bound weekend daily trips in July and August by 29%. More significantly, peak-hour trips during the same time period will be reduced by 42-43%. During these times, peak hour arrival rates are expected to be no more than 120 per hour, which equates to two vehicles per minute on average. This peak-hour arrival rate is down from observed arrival rates of more than 200 per hour currently. The NPS believes this level of reduction of vehicle trips to Muir Woods is substantial, and will not only improve traffic, congestion, safety, and associated impacts at

Muir Woods, but on local communities as well. This action is intended to reduce impacts while fulfilling the mission of providing the public access to one of America's treasures. However, NPS will continue to work in partnership with the County of Marin, Caltrans, Marin Transit, California Department of Parks and Recreation, and other agencies in improving access and reducing impacts of visitation to Muir Woods and other parklands.

Level of Beneficial Impact Associated with Removal of Roadside Parking

There were four (4) comments concerning the level of beneficial impacts associated with the proposed action's reduction of parking along Muir Woods Road. The comments expressed the belief that the removal of parking would have a greater than minor beneficial impact on water quality, federally-listed species, and habitat. The following are representative comments:

- "the EA then goes on to systematically dismiss the beneficial impacts of reducing parking on the Redwood Creek watershed and its salmonids."
- "the EA does not recognize and, indeed, tout the beneficial impacts of those actions on Redwood Creek and its salmonids, "
- "the reduction in (and eventual elimination of) vehicles perching themselves right above Redwood Creek will, in fact, reduce polluted stormwater runoff to Redwood Creek. This will result in an improvement in water quality and, therefore, habitat conditions for Redwood Creeks salmonids."
- "Instead, the EA blames the decline of Redwood Creek's salmonids on multiple factors, ranging from habitat modification to the drought. EA at 9. While NPS, as it must, lists "water pollution" among the factors contributing to the decline of Redwood Creek's salmonids, it steadfastly, and inexplicably, refuses to acknowledge that reductions in polluted stormwater runoff associated with reductions in parking along Muir Woods Road will reduce the delivery of pollutants to Redwood Creek and that this will have a beneficial impacts on its salmonids and their habitat."

Response: NPS is aware of the potential impact for road- and vehicular-related runoff to impact aquatic species, especially salmonids. In particular, the NPS is aware that known toxics such as heavy metals and polycyclic aromatic hydrocarbons (PAH's) have the potential to be present in runoff and could reach Redwood Creek.

The EA considers elimination of shoulder parking as a minor benefit to water quality, rather than a moderate or major benefit, for the following reasons:

- 1) Many shoulder parking areas drain to adjacent vegetated and relatively flat floodplains which are hundreds of feet from the channel. Runoff from those specific shoulder parking areas is highly likely to be absorbed by soils prior to reaching the channel during most runoff events.
- 2) Some existing shoulder parking areas do drain directly into the channel. Elimination of those parking areas may have a minor benefit for water quality.
- 3) After shoulder parking is reduced, vehicles on Muir Woods Road and in other parking areas near the channel will still be present, and road and parking-related runoff will still be in need of management. Numerous sections of both upper and lower Muir Woods Road, including the eroded edges of lower Muir Woods Road, will still drain directly to the creek. Such runoff patterns will persist until road repairs and other long-term site improvements to Muir Woods

Road are conducted. Longer-term modifications to flow patterns and catchments for road runoff will be needed in order to determine that a major benefit to water quality has been achieved.

The EA discusses the potential for runoff to impact salmonids; however, existing data indicates that the Redwood Creek coho population has likely been impacted in recent decades by a wide variety of impacts to their habitat. Currently, there is not adequate data about metals or PAH concentrations in Redwood Creek to evaluate their relative effect on coho compared to other impacts. Nonetheless, NPS's approach is to incorporate Best Management Practices in the proposed and future actions to reduce potential impacts from runoff, even if such impacts are not analyzed for this watershed.

The NPS initiated a water quality sampling plan in fall 2014 to evaluate potential negative effects from stormwater runoff, as recommended in the Redwood Creek Watershed Assessment (2011). To date during the drought period, storms have been inadequate to evaluate impacts, but the sampling program will be on-going.

Commercial Tour Reservation System

There were six (6) comments regarding the management and fees associated with commercial tours. The comments were from tour companies seeking clarity on how the reservation system would affect access and enforcement. Specific areas of concern included whether the system would impose additional restrictions on access, how far in advance reservation could be made, whether there would be preferences given to small or large operators, how the system would ensure fairness, and whether enforcement and compliance for authorized companies would improve. It was expressed that there are many instances that non-authorized commercial operators take parking designated for CUA holders. Representative comments of this include,

- “Many of the town car drivers are utterly clueless about the CUA application rules. They drive for their company owners who either know, don't know, or don't care about CUA fees. If there's limited or no enforcement why should they care?”
- “Over the years, our visitation to Muir Woods has not drastically decreased or increased. We understand the direction the NPS is headed with the reservation system, but our concerns are:
 1. Will we be able to reserve multiple parking time slots in one day? We (sic) 3 options for our guests: the 9:00 am tour (generally 9:45 am arrival to Muir Woods), the 11:00 am tour (generally 11:45 am arrival to Muir Woods), and the 2:00 pm tour (generally 2:45 pm arrival to Muir Woods).
 2. Will we be able to reserve multiple parking spaces in one time slot per day?
- “Will there be other limits for commercial tour operators for visits in one day?”
- “Aside from our tours, we sometimes have custom charter groups. Can these groups be reserved at the same visit time as our standard daily 9:00am group, or 11:00am group for example?”
- “If multiple parking spaces at 1 given time slot will be accepted, what are the cancellation requirements or time frame to provide notice of cancellation?”
- “How far in advance will parking spaces be available for reservation or required for reservation?”
- “Will you allow last minute reservations if the time slot is available?”

- “Will there be a maximum allotment per day for tour operators?”
- “If [tour companies with daily scheduled visits] are permitted to make reservations for two vehicles every morning and every afternoon, there would be few reservations available for other tour companies”
- “How will you designate priority? For example, if Company X has been operating 25 years, and Company "XYZ" has only been operating 5 years, do both companies have access to the same allotment, and the same parking spaces in one time slot?”
- “If parking spaces for a given time slot are already full, will you allow buses to drop off guests and come back for pick up?”
- “Will the Entrance ticket fees be replaced with the reserved parking spaces? Is there a charge for each commercial parking space?”
- “Will you require the passenger count for each parking space?”
- “How will this be divided up between the two reservation systems? A set number for each reservation system each day?”
- “Use unfilled spaces by either system if one does not reach max percent or number?”

Response: The commercial carriers are an important component of the overall transportation system for Muir Woods, providing point-to-point transportation service and reducing vehicle trips. While many of the more detailed aspects about the operations of the system have not been finalized, the EA identified the parameters of the system and its impacts on the environment, such as vehicle trips, air quality, noise, visitation levels. However, the design and operational details will be the subject of further refinement during design and implementation. Issues such as final pricing, staffing levels, how far in advance reservations will be released, and many other specifics will be further defined as the system is further developed. The reservation system for commercial carrier parking would be managed separately from the concession-managed system. It will likely be a web-based only system, with the ability for operators to reserve a parking space in one designated for commercial vehicles. The selected alternative assumes that vehicle trips and visitation by commercial by vehicles will remain unchanged from current conditions, but managed to ensure effective use of commercial parking and compliance with relevant commercial use authority and commercial use permit conditions. The NPS believes this system will improve the efficiency of the limited number of parking spaces designated for commercial operators, currently 16, and will ensure that there is a place for each commercial vehicle to park once they arrive. It will improve compliance with regulations and provide certainty and improved conditions for all vehicles accessing the monument, including commercial operators. This will reduce unauthorized vehicles from occupying commercial spaces, currently a common problem.

The NPS will engage with existing commercial operators in the planning of the system. By engaging with commercial carriers, the NPS intends to design a system that considers the experience and input of these operators, while maximizing the effectiveness of limited parking/staging spaces and addressing the operational problems of the current system. The development of the detailed regulations of the system will be subject to, and consistent with applicable law including 54 U.S.C. § 101925 and NPS Commercial Use Authorization policies. These policies permit NPS to take appropriate measures to manage CUA activities including, among other things, charging a reasonable fee for CUA permits, and setting permit conditions to regulate frequency or timing of visitation by permit holders. The NPS will consider these management tools in its design of the CUA reservation system, and the program will be adjusted over time as necessary to meet project goals and address operational issues that may arise. The NPS will provide advanced notification to current CUA permit holders prior to implementation of a reservation system and prior to any updates to the permit fee structure, as is NPS' current practice.

Paid parking and shuttle reservations will be a new cost to visitors, in addition to the per-person entrance fee charged at Muir Woods. For commercial carriers, adjustments to the Commercial Use Authorization fee structure may be introduced in accordance with applicable law and NPS CUA policy. Any adjustments to this CUA fee structure would be independent of the per-person entrance fee to Muir Woods.

Impacts on Lower Income Populations and Educational Programs

There were four (4) comments expressing concern about increasing costs impacting the ability of lower income populations and educational programs to access Muir Woods. The following is a summary representative comment: “Fees have been a sore point for a long time too. Many of the people whose family visits the park service should be encouraging to visit Muir Woods and other parks.” and “make it a priority to allow nature education groups, from the young children who visit Muir Woods with Wild Care to College of Marin classes, to be able to continue their educational activities. These locals will be the future stewards of Muir Woods, not the tourists.”

Response: The costs of the proposed action have not been finalized, but will be structured to minimize costs to visitors. The cost to visitors will be set to be only sufficient to cover the cost to operate and support the program. The educational and outreach goals identified in the 5th paragraph on page 4 of the EA will set aside 1% of reservations for educational and low-income groups that meet specific criteria.

Impacts on Local Roads and Communities

There were four (4) comments about concerns that the proposed action did not provide sufficient traffic benefit for local roads and communities, or lacked sufficient information about impacts.

Response: The proposed action provides reductions to daily and peak-hour vehicle trips through most of the year, particularly and most significantly during the highest visitation periods (June-August). Specifically, the proposed action is expected to reduce Muir Woods-bound weekend daily trips in July and August by 29%. More significantly, peak-hour trips during the same time period will be reduced by 42-43%. NPS believes this level of reduction of vehicle trips to Muir Woods is substantial, and will not only reduce traffic, congestion, and associated impacts at Muir Woods, but on local communities as well. This action is intended to reduce impacts while fulfilling the mission of providing the public access to one of America’s treasures. However, NPS will continue to work in partnership with the County of Marin, Caltrans, Marin Transit, California Department of Parks and Recreation, and other agencies in improving access and reducing impacts of visitation to Muir Woods and other parklands.

Access for Local Residents

There were four (4) comments concerning a desire to protect access of local users. The commenters were concerned that having to secure a reservation and/or pay fees associated with reservations would be a burden on local users who tend to visit more often than most Muir Woods visitors and tend to visit during off-peak times. A comment summarizing the concern includes, “There should be a provision, perhaps a reserved number of spots, for local residents to be able to visit Muir Woods. The reservation system as outlined in the EA is biased towards the one time visitor from outside Marin County/San Francisco Bay area who is making travel plans in advance.”

Response: Details of the system may include provisions for providing ways for users to continue to use the park during off-peak periods without undue burden while ensuring the system operates adequately, and visitation profiles in Figure 2 of the EA are maintained. Any approach would need to be equally available to all visitors; the NPS does not have authority to provide preferential treatment for access to a unit of the National Park System based on where a visitor lives.

Increase Public Transit

There were two (2) comments expressing a desire to expand public transit to reduce the need of visitors from driving their own vehicles. These comments, summarized in the following comment, “Make sure that shuttles are meeting the demand,” and “Nowhere in anything I've read is the most logical mitigation to the parking problem: large scale employment of water transportation. Shuttle buses should meet every ferry coming into Sausalito and provide direct service to Muir Woods.”

Response: The proposed expansion of the Muir Woods Shuttle, including the days of operation, operational hours, and number of trips, is the result of a balance of many considerations. These considerations include capacity/availability of off-site facilities to intercept vehicles, need (i.e. expected levels of demand), cost, impacts on local communities, and supply of buses, among others. NPS will continue to run new pilot programs to test the viability of expanded shuttle service.

Details of the Reservation System

There were approximately thirty (30) letters than included questions related to very specific details of how the reservation system would operate. The following are representative questions that commenters included:

- “Is the reservation by individual or by vehicle or both?”
- “How far in advance is a given day open for reservation?”
- “Whoever gets on line first to request one or more reservation?”
- “How far in advance will tour buses and individual visitors be able to sign up?”
- “Will some spaces be held open until a week before the date for locals to bring surprise visitors?”
- “Do POVs have to purchase both a parking reservation and entrance tickets online for everyone arriving in the vehicle, giving name of driver and all passenger s, and especially the age of any passenger under 16 (Free entrance)? Otherwise, how will you really know how many visitors are actually coming and/or paying entrance fees?”

Response: Many of the more detailed decisions about the operations of the system have not been finalized. The EA identified the parameters of the system and its impacts on the environment, however, the design and operational details will be the subject of further refinement during design and implementation. Issues such as final pricing, staffing levels, how far in advance reservations will be released, how many tickets will be held for same day reservations, and many other specifics will be further defined as the system is further developed. However, the system will operate within the parameters set out within the EA.