



United States Department of the Interior

NATIONAL PARK SERVICE
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Rio Grande Wild and Scenic River
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IN REPLY REFER TO:

L7617 (7137)

February 7, 2012

Memorandum

To: Regional Director, Intermountain Region

From: William E. Wellman, Superintendent, Big Bend National Park 

Subject: Finding of No Significant Impact, BIBE Environmental Assessment – Construct New Multi-Use Trail at Panther Junction

This transmits for your consideration the Finding of No Significant Impact (FONSI) resulting from the Environmental Assessment (EA) on the subject proposal. Project background documentation, including the EA and FONSI record is contained in the NPS Planning, Environment and Public Comment (PEPC) website – project 14611, Develop Multi-Use Mountain Biking Trail.

Attachment



CONSTRUCT NEW MULTI-USE TRAIL AT PANTHER JUNCTION

FINDING OF NO SIGNIFICANT IMPACT

FEBRUARY 2012

The National Park Service (NPS) has prepared an environmental assessment for the project to construct a 10-mile multi-use trail in non-wilderness backcountry northwest of the Panther Junction Park Headquarters between Grapevine Hills Road and Route 11. The trail would allow for hiking and mountain biking.

The project will provide Park visitors a trail-based recreational opportunity in an area of the Park where none currently exists. The proposed action is in keeping with a 2002 Memorandum of Agreement between NPS and the International Mountain Biking Association (IMBA) that encouraged identifying mountain biking opportunities in the national parks, including new trail construction in appropriate areas. IMBA and the NPS have been working together over the past several years to identify potential opportunities in the Park, excluding wilderness management areas. Bicycles are currently allowed only on existing paved and unpaved roads within the Park according to requirements of 36 Code of Federal Regulations (CFR) 4.30. A new single-track trail would allow for mountain bike users to access the Park's backcountry.

This Environmental Assessment (EA) evaluates three alternatives: 1) Alternative A, the No Action Alternative; 2) Alternative B, to construct a new multi-use trail for mountain biking and hiking; and 3) Alternative C, to construct a new hiking trail only. Alternative A describes the current condition of the project area and the environmental impacts that may occur if there were no changes in the way the Park currently manages the area. Alternative B describes the construction of a new multi-use trail for mountain biking and hiking, trailheads, and construction of a new parking lot and picnic area. Alternative C describes the construction of a new hiking only trail with the same facilities proposed for Alternative B. Alternative B is the preferred alternative.

This document records 1) a Finding of No Significant Impact as required by the National Environmental Policy Act of 1969 and 2) a determination of no impairment as required by the NPS Organic Act of 1916.

SELECTED ACTION

The NPS preferred alternative is the selected action. This alternative includes the construction of a new multi-use trail for mountain biking and hiking to provide new recreational opportunities to Park visitors, including an experience of the primitive backcountry currently not available to bicyclists. To avoid user conflicts, no horses would be permitted on the trail. Designation of a

mountain biking trail would require new Federal rulemaking, including publication in the Federal Register and an associated public comment period, to allow for bicycle use other than on Park roads.

The trail is proposed in non-wilderness backcountry northeast of the Panther Junction Park Headquarters between Grapevine Hills Road and Route 11. The trail would be constructed in two phases. Phase 1 would consist of approximately five miles of single-track trail beginning at a trailhead and parking lot on the north side of Park Route 13 across from the FINA gas station. The trail would loop around the base of Lone Mountain for three miles and continue two miles northwest to Grapevine Hills Road. Most of the Lone Mountain loop would be designed for one-way traffic. The extensions west of Lone Mountain would be designed for two-way traffic. Phase 2 would consist of approximately five miles of single-track trail that interconnects with the Phase 1 trail near its endpoint at Grapevine Hills Road and continues southwest for one mile to a four-mile loop. A trailhead would also be located at Grapevine Hills Road with a widened strip or turnout along the road to allow for parking. The total length of the trail (Phases 1 and 2) would be approximately 10 miles. It is important to note that construction of Phase 2 will not be considered until the level of bicycle use on the Phase 1 trail demonstrates 1) the need for additional biking trails, 2) the bike trail is proving sustainable from maintenance, resource preservation, and expense perspectives, and 3) no unacceptable impacts have resulted from Phase 1 bike use.

The trail alignment was routed by NPS and IMBA in the field by following natural contours of the landscape that would require minimal landscape alteration and disturbance. The trail would be unsurfaced and have an average width of 18 to 24 inches, with wider portions along curves in the route. Areas of trail constructed for two-way traffic would average 24 to 36 inches in width. Trail construction would require removal of vegetation by hand with hand tools, minor grading, and desert trail construction techniques. Charismatic flora such as yuccas would be avoided. Native materials including rock and soil would be used to control erosion. Trail construction would not require a construction staging area or material stockpile. Trail workers would require parking at the proposed trailheads for up to three NPS trucks during the day. Trail construction would occur over a one year period.

A paved parking lot allowing for 20 vehicles would be constructed at the trailhead on the north side of Park Route 13. The parking lot would be about 7,500 square feet in size and have an entrance and exit at both ends to allow for recreational vehicle (RV) pull through. The parking lot would be setback 10 feet from the road. A vegetative buffer would separate the road and the parking lot. Vegetation to screen the parking lot would most likely be supported on the down slope side of the parking lot. A small picnic area would be constructed at one end of the parking lot and NPS anticipates that a toilet may also be installed. The Park would consider using permeable parking lot surface treatments and implement the most feasible treatment option in light of expected longevity, maintenance, and cost considerations.

Parking lot construction would require a staging area and material stockpile that would be located on the proposed parking lot site and at the K-Bar construction staging site two miles east of Panther Junction. Parking lot construction would occur over a three month period.

MITIGATION MEASURES

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the NPS will ensure that protective measures are implemented as part of the preferred alternative. The NPS will implement an appropriate level of monitoring throughout the construction process to help ensure protective measures are properly executed

and achieving their intended results. These resource protection measures are listed in Table 1, attached at the end of this document.

ALTERNATIVES CONSIDERED

Alternatives considered included keeping the project area in its current condition with no trail, constructing a new trail for hiking only, and constructing a new multi-use trail for mountain biking and hiking (the preferred alternative).

Three other alternatives were considered and dismissed. Construction of a single-track mountain bike trail parallel to the Old Ore Road was dismissed. During initial scoping, IMBA indicated that the close proximity of the trail to the road and the numerous road crossings that would subject the bicyclists to motor vehicles would present a less than desirable aesthetic experience and would not be an acceptable route.

Limiting activity on the proposed trail to bicycle users only was also dismissed. Non-mechanized transportation is established in the Code of Federal Regulations and NPS Policy as the fundamental off-road method of mobility in NPS backcountry. Thus Park managers wish not to exclude hiking, particularly since trail user rules and recommendations would alleviate potential visitor conflict and safety issues between the two user groups. Additionally, since restricting use of the trail to bicycles would not achieve creating a trail-based hiking opportunity near Panther Junction, one of the purposes of the project, this alternative was dismissed.

Separating hiking use and bicycle use, either by establishing certain days for each use, or building separate trails for each was also dismissed. Trail use statistics for the park and existing bicycle routes in the vicinity outside the park indicate use will not generally be intensive. Separate trails for each user group would be prohibitively expensive. The proposed trail would be professionally designed, with participation by experienced bicycle and hiking trail designers, to minimize user conflict, reduce speeds and provide adequate sight lines for all user groups. Trail etiquette rules and recommendations would be established to minimize user group incompatibility. Because of expected modest use, trail design and use rules, and the potential to examine the option in the future if warranted, this alternative was dismissed.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The selected action is the environmentally preferred alternative. The environmentally preferred alternative is the alternative that will promote national environmental policy as expressed by §101 of the National Environmental Policy Act. This includes alternatives that:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- Preserve important historic, cultural, and natural aspects of our national heritage and maintains, wherever possible, an environment that supports diversity and variety of individual choice;

- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhance the quality of renewable resources and approaches the maximum attainable recycling of depletable resources.

The selected action will best meet the first five criteria mentioned above. The multi-use trail would contribute to safe, healthful, and productive recreational activities in esthetically and culturally pleasing surroundings. The trail would offer a diverse range of beneficial uses for Park users, including hiking and biking in the Panther Junction area while minimizing environmental impacts to the greatest extent possible. Because new trail construction would follow sustainable design standards, it would be used by future generations for the enjoyment of Park resources. Overall, it would achieve the best balance between public enjoyment of resources and protection of those resources.

After consideration of public comments throughout the scoping and planning process, careful review of potential resource and visitor impacts, and the development of appropriate mitigation to protect resources, the selected action best strikes a balance between the widest range of use and enjoyment of the park without degradation of the environment or risk to health and safety.

WHY THE PREFERRED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR §1508.27 from the CEQ regulations that implement the provisions of NEPA, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

Minor impacts of the preferred alternative include increased soil erosion and compaction from trail construction and use. Of particular concern are the trail crossings of Avery Canyon and Green Gulch where flows in response to rainfall can cause washouts of the trail and concentrate along the trail causing erosion. Mitigation measures such as desert trail design and construction techniques, and temporary closure of the trail during wet conditions would be implemented to reduce impacts.

Flash floods would present a hazard to Park visitors using the trail. Hazardous flood events may occur in a very short time period allowing little opportunity for warning or evacuation. To reduce risks to trail users, signs warning the public of flood hazards and informing them where to go when there is a flood would be located at the trailheads.

The preferred alternative could increase the potential spread of exotic species, specifically Lehmann's lovegrass as a result of the clearing of native vegetation, soil disturbance and compaction, and the dispersion of seeds by trail users. Mitigation measures such as minimizing ground disturbance during trail construction, planting disturbed areas with native vegetation, education of park visitors and exotic species monitoring would be implemented to reduce impacts.

The degree to which the action affects public health or safety.

The preferred alternative would be expected to have minor long-term adverse impacts on public safety in Panther Junction as a result of conflicts between hikers and bicyclists using the trail at the same time. Mountain bikers travel at faster speeds than hikers and these differences in speeds can result in collisions if the bicyclist is not paying attention. Hikers and bicyclists using the

trail could have accidents and injuries including falls and heat exhaustion. The NPS would provide visitors using the trail with information on safety hazards, including heat exhaustion and proper trail etiquette, to minimize impacts to visitor safety.

Implementing the preferred alternative would also increase traffic congestion near the proposed trailhead/parking lot placing motorists, bicyclists, and pedestrians in close proximity to each other. To improve visitor safety and minimize the potential for accidents to occur, the NPS would install more signage alerting motorists to the presence of bicyclists and pedestrians in the area, enforce the speed limit in this area, and extend the 30-mile-per-hour speed zone farther west along Route 13. The NPS would also install a pedestrian crosswalk between the proposed trailhead/parking lot and the gas station.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

There are both historic and cultural resources within the park. Historic resources are not located within immediate proximity of the preferred alternative. However, there are cultural resources located within close proximity to the preferred alternative. With the implementation of mitigation measures, the preferred alternative would be expected to have minor long-term adverse effects on archeological resources in Phase 1 of the project area, most notably at Lone Mountain and its environs. Concerning Phase 2's area of potential effect (APE), no impacts to cultural resources are anticipated in this area.

The multi-use trail would introduce visitors to an area that is rarely accessed. An increase in visitor use along with the possibility that visitors would venture off the trail to access other, more significant, archeological sites is a concern. Proposed mitigation measures would gather cultural information that might otherwise be lost or destroyed upon implementing the proposed trail, and the associated increase in visitor use and exploration of the project area.

Due to a lack of information, it is unknown if any of the sites found near the project area are eligible for listing in the National Register of Historic Places. In a letter dated November 10, 2011, the NPS provided a response to comments received from the Texas Historical Commission (THC) on the EA including errata additions to the EA. The NPS concurred with the stipulations proposed by the THC for site protection, site avoidance, site recordation, trail routing, and additional survey. With these stipulations and protections in place, the NPS considers the action to have no effect on historic properties. The Texas State Historic Preservation Officer (SHPO) concurred with these findings on December 1, 2011.

There are no prime farmlands or ecologically critical areas within close proximity to the preferred alternative. The preferred alternative will not be located near wetland areas.

The degree to which the effects on the quality of the human environment are likely to be highly controversial.

During the 30-day comment period, 1,592 pieces of correspondence were received from members of the public, organizations and agencies. 292 respondents expressed general opposition to the proposal whereas 1,254 respondents expressed general support for the proposal indicating that the preferred alternative would not be highly controversial.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.

The preferred alternative does not present any highly uncertain, unique, or unknown risks. As mentioned above, risks associated with the preferred alternative related to public safety and will be minimal.

The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The National Park System includes 392 units. Only two units; Golden Gate National Recreation Area and Saguaro National Park, have completed all requirements to allow bicycle use outside of public roads, parking areas, and developments.

With this proposal, Big Bend National Park joins 11 other units that are undergoing NEPA Analysis, Rulemaking, or both.

Seven units allow or are proposing bicycle use on old roads and/or newly constructed singletrack (not on administrative roads). These include Big Bend, Saguaro, Mammoth Cave, and Redwood National Parks; and Chatahoochee River, Delaware Watergap, Golden Gate, and Lake Meredith National Recreation Areas.

To date, no NPS unit has completed all NEPA and Rulemaking requirements prior to allowing bicycle use outside of public roads and developments. Only the Big Bend and Lake Meredith proposals are being conducted without a precedence of already-existing use and accompanying constituent expectations.

CFR regulations and NPS Policies apply to all units of the national park system, regardless of unit type (for example; national park, national recreation area, national historic site), except for differences established in individual park enabling legislation.

However, NPS Policies 2006 (Recreational Activities, 8.2.2) recognizes that many park visitors have certain expectations regarding influences upon their park experiences, and the type of park unit and its specific features often help shape those expectations. Thus, expectations in backcountry of Big Bend, Saguaro, Mammoth Cave, and Redwood National Parks may be distinct from those units and National Recreation Areas.

If fully implemented in the near future, the Big Bend and Mammoth Cave proposals (8.5 and 6 miles, respectively) would represent the longest singletrack trail construction projects in the National Park System for the purpose of accommodating bicycle use. The Lake Meredith long-term plan, when complete, would far exceed the Big Bend project in length.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

Cumulative effects were analyzed in the EA and no significant effects were identified.

The degree to which the action may adversely affect items listed or eligible for listed in the National Register of Historic Places (NRHP), or other significant scientific, cultural, or historic resources.

Due to a lack of information, it is unknown if any of the sites found near the project area are eligible for listing in the National Register of Historic Places. In a letter dated November 10, 2011, the NPS provided a response to comments received from the THC on the EA including errata additions to the EA. The NPS concurred with the stipulations proposed by the THC for site protection, site avoidance, site recordation, trail routing, and additional survey. With these

stipulations and protections in place, the NPS considers the action to have no effect on historic properties. The Texas SHPO concurred with these findings on December 1, 2011.

Tribes with affiliation to lands within the park as well as the THC have not expressed concern regarding adverse effects to scientific, cultural, or historic resources. Construction activities will cease should sensitive cultural resources be unearthed and further evaluation can be conducted.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The NPS botanist and wildlife biologist have evaluated the project area and found that no federally or state-listed species or suitable habitat for these species exists in the project area. A May 2007 botanical survey final report found several Park-designated sensitive plant species in the project area. However, because these species have a sufficiently wide coverage area in the Park, the project is unlikely to affect regional or Park-wide populations.

Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The preferred alternative will not violate any federal, state, or local environmental protection laws.

PUBLIC INVOLVEMENT

The EA was made available for public review and comment during a 30-day period from March 4, 2011 through April 2, 2011. During the 30-day comment period, 1,592 pieces of correspondence were received from members of the public, organizations and agencies. 292 respondents expressed general opposition to the proposal. 1,254 respondents expressed general support for the proposal. Most of the correspondence expressed opinions thus were not substantive. Among the substantive comments received, most reflected concern for adverse effects on the environment caused by the proposed trail. Significant numbers questioned the need for the proposed trail, suggested the bike trail would have adverse effects on the visitor experience, reflected concern for costs of building and maintaining the proposed trail, and expressed concern about conflicts and safety among different trail user types.

Substantive comments to the EA centered on 43 topics. These concerns resulted in no changes to the text of the EA but are addressed in errata sheets attached to this FONSI. The FONSI and errata sheets will be sent to those that provided comments.

CONCLUSION

As described above, the preferred alternative does not constitute an action meeting the criteria that normally require preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Environmental impacts that could occur are limited in context and intensity, with generally adverse impacts being negligible to minor in the long-term. There are no unmitigated adverse effects on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of

precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended:  2/7/12
Superintendent, Big Bend National Park Date

Approved: _____
Regional Director, Intermountain Region Date

Table 1: Resource Protection Measures	
Resource Category/Action	Responsible Party
Public Health and Safety	
<p>The NPS would implement the following Code of Federal Regulations (CFR) requirements to govern the proposed trail's use. The CFR reference is provided in parentheses:</p> <ul style="list-style-type: none"> • Trail users would adhere to one-way bicycle use designations as posted (CFR Section 4.12). • Bicycles may not shortcut switchbacks, and may not be used off the designated trail (CFR Section 4.30 (a)). • Bicyclists yield to pedestrians (Section 4.20). • No horses on designated multi-use bicycle trail (Section 1.5). • Bicycles are allowed only on roads open to the public, and on this designated trail route (Section 4.30 (a)). • Only human-powered bicycles allowed. No motorized or power-assisted (i.e. electric) bicycles (Section 1.4 (a)). • Ride only in single file, not abreast (Section 4.30 (3)). • Use of headlight and tail reflector required when riding after dark (Section 4.30 (2)). • Ride at a speed and in a manner that does not endanger others (Section 4.22 (b)(1), Section 4.22 (a), and Section 2.34 (a)(4)). 	NPS
<p>Additionally, the NPS would implement the following recommendations to govern the proposed trail's use:</p> <ul style="list-style-type: none"> • Always wear a helmet when cycling; • If you wish to walk off-trail, leave bicycles adjacent to the trail; • Ride within your ability and in a manner that is safe for yourself and others; • Avoid riding when trail is wet. Ride through rather than around puddles; • Alert other users when passing and meeting; and • "Stop and lean" rather than riding off-trail when meeting others. 	NPS
A shaded information kiosk will be constructed at trailhead for display of rules, recommendations, safety information, map, etc.	NPS
Primary signing will be displayed at the trailheads. Essential but minimal safety, resource, and directional signage will be posted along trail where warranted.	NPS
Law enforcement, interpretive, and volunteer patrols will occur.	NPS
Signage will be installed on paved Park Route 13 to alert motorists to bicyclists between Grapevine Hills turnoff and trailhead at Panther Junction.	NPS
A pedestrian crossing will be marked on paved Park Route 13, between trailhead and Panther Junction gas station.	NPS
Trail layout and design will emphasize slow-speed bicycle use, and mitigation of bicycle related resource protection and visitor safety principles.	NPS
Visitor Experience	
In accordance with <i>NPS Management Policies 2006</i> , the trail would be carefully situated, designed and managed to reduce conflicts with incompatible uses, allow for a satisfying park experience, allow accessibility by the greatest number of people, and protect Park resources.	NPS
Should use increase significantly during specific high-use periods, such as holidays, the NPS will consider implementing time-schedule segregation of hiker and bicycle use of the trail, assigning each to separate hours or days as warranted.	NPS
Group size limits will be imposed if warranted in the future.	NPS
Several rest/observation points with benches will be distributed along trail Lone Mountain Loop portion of the trail.	NPS
Cultural Resources – Archeology	
To avoid impacts to archeological resources, the final trail alignment would be designed in consultation with the Park's Archeologist to avoid all archeological features, and all ground-disturbing construction activities would be monitored by an NPS archeologist.	NPS

Table 1: Resource Protection Measures

Resource Category/Action	Responsible Party
Should construction unearth previously undiscovered cultural resources, work would stop in the area of discovery and the NPS would consult with the State Historic Preservation Officer and the Advisory Council on Historic Preservation, as necessary, according to 36 CFR 800.13, <i>Post Review Discoveries</i> .	NPS
To reduce visitor impacts to the National Register-eligible cultural site at Lone Mountain, the NPS would develop accurate maps for the site along with a narrative description and a complete photographic record of features and structures. The NPS will also document and monitor the site on a cyclical basis for change or visitor-related degradation. Analysis must be performed on any carbonaceous materials found within the features. Additionally, to understand domestic or ritualistic activities, it may be necessary to investigate, collect, and analyze samples of palynological or botanical residues found within the features. Mapping, selective excavation, and recording and removing artifacts, are also required in other locations in the APE where impacts cannot be avoided by rerouting the trail.	NPS
If human remains are found, the NPS must consult American Indian tribes as required by the Native American Graves Protection and Repatriation Act.	NPS
Educate trail users about the importance of staying on existing trails using techniques such as signage, literature, and interpretive walks to minimize soil compaction, surface water runoff, and erosion due to off-trail travel.	NPS
Discourage off-trail travel by using natural barriers to travel such as prickly plants in the center of a climbing turn.	NPS
Should construction unearth previously undiscovered paleontological resources, work would stop in the area of discovery and the Trails Supervisor would consult the Park Archeologist and Geologist. The Park's Science and Resources Division would determine the appropriate treatment of paleontological resources, in accordance with <i>NPS Management Policies 2006</i> .	NPS
Soils and Vegetation	
The trail will be temporarily closed to bicycles and/or hikers when wet conditions create unacceptable rutting and erosion risk.	NPS
Ground disturbance during trail construction would be minimized to prevent the spread of exotic plant species. Disturbed areas would be planted with native vegetation.	NPS
The NPS would work with IMBA to implement a monitoring and maintenance plan to ensure that the design and use of the trail does not cause unacceptable environmental impacts.	NPS
Educate trail users about the importance of staying on existing trails using techniques such as signage, literature, and interpretive walks to minimize soil compaction, surface water runoff, and erosion due to off-trail travel.	NPS
Discourage off-trail travel by using natural barriers to travel such as prickly plants in the center of a climbing turn.	NPS
Charismatic flora such as yuccas would be avoided and not removed during trail construction.	NPS
The NPS would recommend that mountain bikers remove dirt from their wheels before riding on trails to prevent the spread of exotic species. Wayside signs would be installed at both trailheads informing visitors.	NPS
Water Resources	
Design the trail to enter small drainages at a right angle to the flow. Contour into larger drainages.	NPS
Keep water from running down the trail by maintaining a slope of five to seven percent wherever feasible.	NPS
Where needed, use water diversions to keep water off the trail including earthen and stone waterbars. In areas where water may accumulate, use causeways where logs are situated parallel to one another at the edge of the desired trail width, and filled with earthen material to provide a raised trail bed for foot and bike traffic to avoid water without causing trail widening.	NPS