United States Department of the Interior

National Park Service
Blue Ridge Parkway
199 Hemphill Knob Road
Asheville, North Carolina 28803

IN REPLY REFER TO

FINDING OF NO SIGNIFICANT IMPACT
PROPOSED WASTEWATER TREATMENT PLANT
FOR
MT. PISGAH DEVELOPED AREA
ENVIRONMENTAL ASSESSMENT
BLUE RIDGE PARKWAY
BUNCOMBE COUNTY, NC

The preferred alternative does not constitute an action that normally requires preparation of an environmental impact statement in accordance with the regulations issued by the Council of Environmental Quality. The preferred alternative will not have a significant effect on the human environment. Environmental impacts that could potentially occur are negligible to minor in intensity. The project would have no significant effects on public health and safety, wetlands, threatened or endangered species, archeological or historical resources, or other unique features of the Blue Ridge Parkway and surrounding region. No highly uncertain or controversial effects, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the proposed action will not violate any Federal, State or local environmental protection laws.
Based on the forgoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended: _____ 2/27/07
Phil Francis — Date
Superintendent, Blue Ridge Parkway

Recommended: _____ 3/27/07
Francis Peltier — Date
Associate Regional Director for Professional Services

Approved: Patricia A Hooks _____ 3/30/07
Patricia A Hooks — Date
Regional Director, National Park Service, Southeast Region

BACKGROUND

The National Park Service is considering replacing the existing wastewater treatment plant (WWTP) on Mt. Pisgah, North Carolina. Mount Pisgah is located near mile 408 of the Blue Ridge Parkway, approximately 20 miles south of Asheville, NC. The existing wastewater treatment plant provides treatment services for the Mt. Pisgah Developed Area, which includes the Mt. Pisgah Inn (51 units), expanded restaurant, the improved country store, a multi-unit employee housing area, a 140-site campground, a 50-site picnic area, and a recreational vehicle waste disposal facility (Figure 2). The plant is owned, operated, and maintained by the National Park Service. The existing wastewater treatment plant near the Mt. Pisgah Developed Area has historically met all North Carolina National Pollutant Discharge Elimination System discharge limits with the exception of ammonia toxicity. Flows are expected to increase in the next several years as the number of visitors coming to the area increases, with a potential for continued and increased numbers of violations of the ammonia toxicity test. The purpose of the proposed project is to provide improved wastewater treatment facilities that will allow the plant to consistently pass the ammonia toxicity test and to have the needed ability to accommodate projected future flows.

The current WWTP was constructed in the 1950's and has been modified several times since its original construction. These modifications were necessary to keep up with the increased volume of sewage flow as a result of increased area visitation and new state/federal regulations. The current system is antiquated with rapidly deteriorating infrastructure. During the last three years, the Mt. Pisgah treatment plant has violated the effluent discharge requirements of its National Pollutant Discharge Elimination System permit for ammonia toxicity (the Whole Effluent Toxicity test). As a result, the Blue Ridge Parkway received several Notices of Violation from the North Carolina Department of Environmental and Natural Resources Division.

The National Park Service prepared the Environmental Assessment for the proposed wastewater treatment plant improvements and it was available for public review for a period of 30 days. The environmental assessment analyzed a No Action (Alternative O) and 7 action alternatives (A-G). The Preferred Alternative is Alternative B.

The purpose of this document is to record the decision to implement an alternative from the environmental assessment and to record a Finding of No Significant Impact (FONSI) pursuant to the Council on Environmental Quality's regulations (40 CFR 1500 & 42 USC 4332(2)(C)) for implementing the National Environmental Policy Act.

PREFERRED ALTERNATIVE – ALTERNATIVE B

The preferred alternative is to replace the existing wastewater treatment plant at Pt. Pisgah with an extended aeration package treatment system. Pre-engineered, pre-fabricated extended aeration activated sludge wastewater treatment facilities are commonly used for flow ranges similar to those at the Mt. Pisgah plant. These systems apply the same biochemical technologies frequently used in larger facilities, but can be procured in a fully enclosed system designed for smaller flow ranges. If properly operated and maintained, extended aeration package treatment facilities

produce acceptable effluent quality, and low levels of biological oxygen demand, total suspended solids and ammonia. The effluent from the package facility can either be conveyed to the existing filters or bypass the existing filters.

Under this alternative, the lagoon would be taken out-of-service and filled in with compacted dirt and the useable plant site area would be increased by approximately 0.46 acres. A new plant influent pumping station wet well with short-term equalization storage also would be constructed. Two submersible pumps would be provided in the pumping station. The extended aeration package plant would be mounted to a concrete slab on-grade. The exterior dimensions of the pre-fabricated structure would be approximately 70' (length) by 15' (wide) by 15' (height). Within the structure, the following zones are present: sludge thickening/storage zone, aeration zone, clarifier zone, and a disinfection contact zone (if needed). The sludge thickening/storage zone would temporarily hold biosolids generated in the system until solids are conveyed to a new onsite sludge storage / treatment facility. Sludge would be gravity conveyed to a 25,000 gallon steel sludge storage tank. A 2.5 horsepower progressing cavity sludge transfer pump would be located next to the storage tank, so that sludge could be transferred to a sludge disposal truck. Sludge drying bed and Imhoff tank demolition would also be included under this alternative. To facilitate facility reliability, a new 25 kW generator would also be included on-site.

Advantages of the extended aeration package treatment facility would be the relatively low cost, high degree of reliability, and compact footprint. Alternative B would also provide a new treatment facility for relatively the same costs as alternative A (described below). Given the age of the existing system, there would be continued maintenance concerns if alternative A were implemented. Under alternative B, the effluent, or treated wastewater, would be the same quality or slightly better than the existing system. Since extended aeration package plants are a proven wastewater treatment technology, the North Carolina Department of Environment and Natural Resources permitting process should also be simplified.

OTHER ALTERNATIVES CONSIDERED

No Action Alternative – Alternative O

Alternative O, the no action alternative, would consist of continuing the present management operations and conditions. Alternative O provides a basis for comparing the environmental consequences of alternative B (Preferred Alternative) and the other alternatives. Should alternative O, no action, be selected, the National Park Service would respond to future needs and conditions associated with the park’s objectives without major actions or changes from the present course.

The Preferred Alternative (Alternative B): Construct Extended Aeration Package Treatment System

Pre-engineered, pre-fabricated extended aeration activated sludge wastewater treatment facilities are commonly used for flow ranges similar to those at the Mt. Pisgah plant. These systems apply the same biochemical technologies frequently used in larger facilities, but can be procured in a fully enclosed system designed for smaller flow ranges. If properly operated and maintained,

extended aeration package treatment facilities produce acceptable effluent quality, and low levels of biological oxygen demand, total suspended solids and ammonia. The effluent from the package facility can either be conveyed to the existing filters or bypass the existing filters.

Under this alternative, the lagoon would be taken out-of-service and filled in with compacted dirt and the useable plant site area would be increased by approximately 0.46 acres. A new plant influent pumping station wet well with short-term equalization storage also would be constructed. Two submersible pumps would be provided in the pumping station. The extended aeration package plant would be mounted to a concrete slab on-grade. The exterior dimensions of the pre-fabricated structure would be approximately 70' (length) by 15' (wide) by 15' (height). Within the structure, the following zones are present: sludge thickening/storage zone, aeration zone, clarifier zone, and a disinfection contact zone (if needed). The sludge thickening/storage zone would temporarily hold biosolids generated in the system until solids are conveyed to a new onsite sludge storage / treatment facility. Sludge would be gravity conveyed to a 25,000 gallon steel sludge storage tank. A 2.5 horsepower progressing cavity sludge transfer pump would be located next to the storage tank, so that sludge could be transferred to a sludge disposal truck. Sludge drying bed and Imhoff tank demolition would also be included under this alternative. To facilitate facility reliability, a new 25 kW generator would also be included on-site. Advantages of the extended aeration package treatment facility would be the relatively low cost, high degree of reliability, and compact footprint. Alternative B would also provide a new treatment facility for relatively the same costs as upgrading the existing plant. Given the age of the existing system, there would be continued maintenance concerns if alternative A were implemented. Under alternative B, the effluent, or treated wastewater, would be the same quality or slightly better than the existing system. Since extended aeration package plants are a proven wastewater treatment technology, the North Carolina Department of Environment and Natural Resources permitting process should also be simplified.

Other Alternatives

A total of six additional alternatives were considered during the course of the project. These included upgrading the existing treatment plant, polishing constructed wetlands, recirculating sand filtration system, membrane bioreactor package treatment system, membrane bioreactor package treatment system with ultraviolet (UV) disinfection, sequencing batch reactor treatment system, and a Orenco Advantex filtration system. A Value Analysis conducted by the National Park Service showed, however, that these were not feasible based on consideration of engineering, cost, logistics and environmental factors.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act, which is guided by the Council on Environmental Quality. The Council on Environmental Quality provides direction that the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of the National Environmental Policy Act, which considers:

Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;
Assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;
Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;
Achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (National Environmental Policy Act, 1969).

Generally, these criteria mean the environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources (Federal Register, 1981).

Alternatives A and B both meet these goals more effectively than Alternative O, the No Action Alternative. Each of the action alternatives would effectively manage wastewater and protect water quality. In addition, each has environmental advantages compared to the other.

Both action alternatives would enable the National Park Service to "Fulfill the responsibilities . . . as trustee of the environment."
"Safe, healthful, . . . and esthetically . . . pleasing surroundings" would better be attained by Alternative A. This alternative would eliminate the lagoon, which would be filled, graded, and seeded with native grasses. Otherwise, Alternatives A and B would meet this requirement in a similar manner.
"Productive . . . surroundings" would be better achieved by Alternative A, which would create a grassed field at the site of the filled lagoon.
Both alternatives would provide an equal "range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences." The overall effect of either of the two alternatives would be moderate, beneficial effect on water quality and aquatic life through improved treatment capability. Using the same criterion, Alternative A would "attain the widest range of beneficial uses of the environment" by creating more grassed area within the existing plant site.
Both alternatives would help "preserve important historical, cultural, and natural aspects of our national heritage" by improving water quality in Flat Laurel Creek. Since all construction would take place within the existing plant site, and no cultural resources are present, neither alternative would have any effect on historical or cultural resources.
Neither action alternative would provide beneficial reuse of water, but would provide improved treatment.

Of the two action alternatives, Alternative A is environmentally preferred. The deciding factors include:

The lagoon would not have to be filled, which would avoid the need to haul 4,500 cubic yards of fill dirt to the site, with the associated potential for soil erosion and truck traffic to and from the site;
An overall smaller amount of land would be disturbed to upgrade the existing facilities.

RESOURCE PROTECTION MEASURES

Best management practices and other mitigation measures would be used to prevent or minimize potential adverse effects associated with the construction and operation of the wastewater treatment plant. These practices and measures would be incorporated into the project construction documents and plans to reduce the magnitude of impacts and ensure that major adverse impacts would not occur. Mitigation measures undertaken during project implementation would include, but would not be limited to those listed below. The impact analysis in the "Environmental Consequences" section was performed assuming that these best management practices and mitigation measures would be implemented as part of all action alternatives. The impacts of the selected action as described in the "Affected Environment and Environmental Consequences" section of the environmental assessment were determined assuming that these resource protection measures were implemented.

Practices to Minimize Effects on Water Quality and Aquatic Life

Implementation of best management practices would result in local, direct, negligible effects on water quality resulting from soil erosion. All appropriate best management practices would be implemented during construction to prevent degradation of local waters and watersheds. These would include:

Only clean fill, preferably from some site on the Parkway, shall be used. Any fill coming from off-site shall be inspected (as well as the site it came from) to reduce the chances for introduction of exotic plant species.
Construction and other debris shall be disposed of according to Superintendent's Order #6, Solid Waste Disposal, dated July 16, 2003.
There should be no large tankers allowed on treatment plant road after construction.
In the event any action is to be considered that could impact concession services in the Mt. Pisgah area, the Concessions Office shall be provided with advance notification of at least 30 days.
Erosion prevention practices would include using silt screening around any disturbed areas for two weeks after construction is complete, mulching all exposed slopes, placing staked hay bales in drainages, and sprinkling exposed soil to prevent wind erosion. In addition, the existing corridor for the effluent pipe leading the Flat Shoals Creek will be used.

Post construction mitigation measures would include sodding or seeding all exposed soils to prevent erosion, performing routine maintenance on all stormwater treatment facilities, keeping trash and debris cleared up, and avoiding using chemical pesticides and fertilizers on the landscape.

Practices to Minimize Effects on Special Status Species

A survey of the wetland inside the fenced-in area will be conducted to delineate the boundaries of this resource more precisely so it can be avoided during construction and operation. In addition, the National Park Service will conduct a survey of the wetland to determine if any listed species of plants or animals are present in this wetland. The wetland will also be marked and avoided during construction and operation. Best Management Practices will also be employed to minimize potential effects of soil erosion during construction.

THE PREFERRED ALTERNATIVE AND SIGNIFICANCE CRITERIA

The preferred alternative (Alternative B) will have negligible to minor, short-term, temporary impacts to Park's natural resources. The project will have no adverse effects on cultural resources. Potential effects on natural resources will be minimized and mitigated as described in the Environmental Assessment. As defined at 40 CFR §1508.27, from the Council on Environmental Quality 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.

No significant adverse impacts will occur to the Park's soils or geology, water quality, hydrology, wetlands, protected species, fish, or wildlife. The proposed plant will be constructed and operated within a previously disturbed fenced-in area that includes the existing wastewater treatment plant. A small wetland is the only undisturbed habitat present within the construction area. This resource will be delineated prior to construction and avoided. During operation, the upgraded plant would discharge treated effluent to Flat Laurel Creek. The quality of the effluent would be improved as compared with the existing plant. During operation, this alternative would therefore have local, minor and long-term beneficial effects on water quality.

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

The proposed plant would be an improvement over the existing facility and would have no adverse effects on public health and safety. Public health and safety risks would be under control by the National Park Service and would be managed in compliance with applicable state and federal regulations. No other effects on public health and safety will occur.

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.

Implementation of the preferred alternative will result in no significant adverse effects to any natural, historic or cultural resources on the site or in the surrounding area. The site consist of a fenced-in disturbed area that is currently used for the existing wastewater treatment plant. The small wetland located inside the construction site will be delineated prior to construction and avoided completely. Water quality in Flat Laurel Creek will improve slightly due to the improved quality of the treated effluent. No other natural or cultural resources would be affected by the construction and operation of the proposed plant.

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

Construction of the new wastewater treatment plant will be limited to the previously disturbed site and will not result in any controversial effects on the quality of the human environment.

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

The project consists of construction and operation of a new package treatment plant that will result in minimal effects on the quality of the human environment. The potential effects on the quality of the human environment are low because the project would be constructed and operated within a previously disturbed site. The overall effects on the human environment would be a beneficial improvement in water quality in Flat Laurel Creek, and the benefit of improved capability to treat wastewater from the Mt. Pisgah Developed Area in the future. This conclusion is based on the analysis made in the environmental assessment and comments received during the public review process.

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 new wastewater treatment plant is an independent action designed to provide improvements to water quality in Flat Laurel Creek. The project will have an overall long-term beneficial effect on the environment as a result. The project will therefore not establish any precedents for future action that would have significant environmental effects, nor would it represent a decision in principle about a future consideration.

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

An analysis of the potential cumulative effects of the proposed wastewater treatment plant on natural and cultural resources and the human environment was conducted in the environmental assessment. This was done by comparing the effects of the alternatives with other past, present, and reasonably foreseeable actions in the surrounding area. Aside from some minor temporary traffic and noise impacts associated with construction, no significant adverse cumulative effects are anticipated to occur.

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

The environmental assessment was prepared in compliance with Section 106 of the National Historic Preservation Act. No cultural resources are located within the proposed previously disturbed fenced-in construction area. No adverse effects on cultural resources of any type would result from construction or operation of the proposed facility. Therefore the project will be in compliance with Section 106 of the National Historic Preservation Act.

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.

A review of all available information on federally protected species the site and surrounding area as part of the environmental assessment was conducted. The majority of the site consists of cleared, previously disturbed land. No protected species occur in Flat laurel Creek. The analysis completed in the environmental assessment showed that the project is not likely to adversely affect federally listed or species proposed for listing or their critical habitat under the jurisdiction of the USFWS.

The proposed action violates no Federal, State, or local environmental protection laws.

IMPAIRMENT STATEMENT

In addition to reviewing the list of significance criteria, the National Park Service has determined that implementation of the selected action will not constitute an impairment to the critical resources and values of the park. This conclusion is based on a thorough analysis of the environmental impacts described in the environmental assessment, public comments, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in NPS Management Policies 2001. The preferred alternative will not result in significant adverse impacts to park resources. Overall, the plan results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.

PUBLIC INVOLVEMENT

A public scoping document was mailed out in April 20, 2006. Notice of the scoping document was advertised in area newspapers and posted on the National Park Service web sites prior to the documents being mailed. The public scoping document was mailed to government officials, conservation groups, and residents around the Monument to gather their input on various aspects of the project. The public was asked to send their comments to the Superintendent, and were given a 30-day period to do so.

The National Park Service conducted internal scoping with appropriate National Park Service staff, as well as federal, state and local agencies, and external scoping with the general public and affected groups via a newsletter published in May, 2006. The internal scoping meetings were

held at Parkway headquarters on November 8-9, 2005. A news release announcing its availability was published in the local papers on June 9, 2006. The following agencies commented on the environmental assessment:

North Carolina Wildlife Resources Commission
North Carolina Department of Environment and Natural Resources, Asheville Regional Office
North Carolina Department of Environment and Natural Resources, Division of water Quality
U.S. Fish and Wildlife Service
Tribal Historic Preservation Officer for the Eastern Band of Cherokee Indians
Western North Carolina Alliance, Asheville, NC
North Carolina Department of Administration
United States Department of Agriculture Forest Service Supervisors office in Asheville, NC

All comments were reviewed and addressed by the project team, and are included in the attached Errata Sheets document. Changes in the text of the environmental assessment were made for each comment where needed and are presented in the Errata Sheets.

Errata Sheets

Environmental Assessment

For

Blue Ridge Parkway

Proposed Wastewater Treatment Plant

Mt Pisgah, North Carolina

These errata sheets should be attached to the original environmental assessment to form the complete record of the environmental impact analysis and conservation planning completed for the project. The errata sheets provide a brief summary of each comment (ones requiring changes in the text), NPS responses to each comment, and changes in the text of the environmental assessment, if needed.

The information addressed in these Errata sheets does not change the proposed project activities which were identified and analyzed, and does not lead to any significant changes in the environmental impact analysis or determinations made.

Each substantive comment is summarized briefly, followed by changes from the original text indicated in quotation marks.

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

COMMENT #1: Potential effects of construction on the small wetland just inside the fenced in area.

> RESPONSE: There could be minor effects on this wetland due to soil erosion on the site during construction. These effects will be mitigated, however, as indicated in the following text changes.
>
> CORRECTION:
>
> Page 22, Impact Topics Dismissed From Further Analysis
>
> Replace the wetlands section with the following modified paragraphs:
>
> **Wetlands:** A small seepage slope wetland is located along the roadside within the fence line of the wastewater treatment plant boundary. Construction activities such as roadwork or laying of pipeline could affect this wetland. “Construction in close proximity to this resource could also have some minor effects caused by soil erosion.” Mitigation measures, to include silt fencing and other best management practices, will be employed to minimize the potential effects on the wetland. “Because the overall effects are expected to be negligible, wetlands were dismissed as an impact topic.”

Page 43, Practices to Minimize Effects on Water Quality and Aquatic Life

CORRECTION:

The following paragraph was added at the end of this section:

"Construction in close proximity to the wetland just inside the gate to the plant could also have some minor effects caused by soil erosion. Mitigation measures, to include silt fencing and other best management practices, will be employed to minimize the potential effects on the wetland."

COMMENT #2: Does the treatment plant have difficulty handing 35,000 gallons per day flow on July 4, 2005?

RESPONSE: The plant operated normally. These types of flows occur occasionally during peak tourist season.

COMMENT #3: They recommended adding the NPDES permit number to the text.

CORRECTION:

The NPDES permit number was added to the following sentence on page 25:

The National Pollutant Discharge Elimination System permit (No. NC007279) limits for the existing facility are summarized in Table 2 (from Veltman 2005).

COMMENT #4: The statement that plant meets NPDES permit requirements but is shut down from November to April.

RESPONSE: Ammonia levels are in fact high at the beginning of the season and high at the end of the season. They drop during the summer. The text has been corrected to explain this situation.

CORRECTION:

The existing aerated lagoon facility "typically" meets National Pollutant Discharge Elimination System effluent requirements on a regular basis. "However elevated ammonia levels do occur at the end and beginning of each season". On these occasions, effluent ammonia toxicity may occur as indicated by whole effluent toxicity biomonitoring excursions. Excessive sludge accumulation in the lagoons over the operating season is the likely cause of the prior whole effluent toxicity excursions. Maintaining the existing plant is not possible because of the continued risk of ammonia toxicity. In addition, the existing plant cannot improve the effluent quality beyond the existing conditions.

COMMENT #5: The capacity of the plant under Alternative B should be specified on page 40.

CORRECTION:

The size of the plant under the preferred alternative was added to the beginning of the first paragraph on page 40, as follows:

A pre-engineered, pre-fabricated extended aeration activated sludge wastewater treatment "plant with a capacity of 35,000 gallons per day would be constructed under this alternative. These types of plants are very reliable and" are commonly

used for flow ranges similar to those at Mt. Pisgah facility . “A” new 25 kW generator would also be included on-site.

COMMENT #6: Please list the best management practices for soil erosion.

CORRECTION:

A fifth paragraph (underlined below) was added to the list of mitigation measures on page 43, as follows:

Practices to Minimize Effects on Water Quality and Aquatic Life

Implementation of best management practices would result in local, direct, negligible effects on water quality resulting from soil erosion. All appropriate best management practices would be implemented during construction to prevent degradation of local waters and watersheds. These would include:

> Only clean fill, preferably from some site on the Parkway, shall be used. Any fill coming from off-site shall be inspected (as well as the site it came from) to reduce the chances for introduction of exotic plant species.
>
> Construction and other debris shall be disposed of according to Superintendent’s Order #6, Solid Waste Disposal, dated July 16, 2003.
>
> There should be no large tankers allowed on treatment plant road after construction.
>
> In the event any action is to be considered that could impact concession services in the Mt. Pisgah area, the Concessions Office shall be provided with advance notification of at least 30 days.
>
> “Erosion prevention practices would include using silt screening around any disturbed areas for two weeks after construction is complete, mulching all exposed slopes, placing staked hay bales in drainages, and sprinkling exposed soil to prevent wind erosion. In addition, the existing corridor for the effluent pipe leading the Flat Shoals Creek will be used.”

Post construction mitigation measures would include sodding or seeding all exposed soils to prevent erosion, performing routine maintenance on all stormwater treatment facilities, keeping trash and debris cleared up, and avoiding using chemical pesticides and fertilizers on the landscape.

COMMENT #7: The suggestion was made that silt fences be left in place for two weeks after construction is complete to protect Pisgah Cree, a designated trout water.

CORRECTION:

A fifth paragraph (underlined below) was added to the list of mitigation measures on page 43, as follows:

> “Erosion prevention practices would include using silt screening around any disturbed areas for two weeks after construction is complete, mulching all exposed slopes, placing staked hay bales in drainages, and

sprinkling exposed soil to prevent wind erosion. In addition, the existing corridor for the effluent pipe leading the Flat Shoals Creek will be used."

COMMENT #8: Construction activities can be year-round if they stay at least 25 feet from the banks of WS-III and Trout waters. If closer than 25 feet, construction cannot take place during spawning season. Other WS-III water requirements were appended, and are as follows (NC Administrative Code 15A NCAC 02B .0100, .0200 & .0300):

> WS-III waters include lakes and streams that are used for water supply but still have a significant amount of human activity in the watershed, and governmental controls are available for development and wastewater discharges.
>
> Municipal and industrial point source discharges are not allowed.
>
> Public water and sewer collection lines and facilities are allowed.
>
> Development density is limited to one dwelling unit for each one acre lot, or 12% built upon area within the critical area without stormwater controls.
>
> In the critical area, higher density development (12-30% built upon area) in the critical area is allowed if BMPs are implemented to control a 1 inch storm.
>
> In the rest of the watershed, development density is limited to 2 dwelling units per acre, or 24% built upon area, without stormwater controls.
>
> Building densities may range from 24-50% built upon area if stormwater controls are implemented.

RESPONSE: The proposed project sis located on Mt Pisgah and is contained entirely within the Pisgah National Forest, a relatively undisturbed watershed. The proposed project will be in compliance with all WS-III requirements as listed above.

ADDITIONAL PORTION OF COMMENT #8: The agency was not able to locate Flat Shoal Creek on the available maps, so could not provide guidance for this stream.

RESPONSE: Flat Laurel Creek was located on the 1:24,000 USGS quadrangle based on its known location relative to the site. It is the first stream downslope of the site, and feeds directly into Pisgah Creek. Construction of the proposed facility will occur when the lodge and campground are shut down, between November and April. No construction will occur within 25 feet of a WS-III or Trout Water.

COMMENT #9: Improved effluent quality should have a long term beneficial effect on water quality, not a "moderate, local, short-term beneficial effect on water quality".

RESPONSE: We concur with this statement and have changed the text on page 55 accordingly.

CORRECTION:

The second paragraph on page 55 has been changed as follows:

Overall, operation of the new package plant under Alternative B would therefore result in a moderate, local, “long-term” beneficial effect on water quality.

The sixth paragraph on page 55 has been changed as follows:

During operation, Alternative B would result in improvements of the quality of the effluent during operation of the new plant. These improvements would minimize the potential for problems with ammonia toxicity in the effluent, since the lagoon would be eliminated, and a more efficient treatment system would be used. Overall, operation of the new package plant under Alternative B would therefore result in a moderate, local, “long-term” beneficial effect on water quality.

COMMENT #10: Conflicting statements on page 59 regarding effects on aquatic life.

RESPONSE: The effects of the new package plant would be to avoid further problems with ammonia, resulting in an improvement in water quality during operation, and therefore, beneficial effects on water quality and aquatic life. However, we concur that these changes would be long-term, not short term, so we have changed the text on page 59 accordingly.

The other parts of this section were intended to point out the difference between the effects of having the lagoon filled (more disturbed area) and the effects of the combined effects of the proposed project with other past, present or reasonably foreseeable projects (i.e, cumulative effects). We feel that the text explains these changes accurately.

CORRECTION:

The second paragraph on page 59 has been changed as follows:

Overall, operation of the new package plant under Alternative B would therefore result in minor, local, ”long”-term beneficial effects on aquatic life.

UNUMBERED COMMENT:

Will the facility need an increased permitted flow of 35,000 gpd?

RESPONSE: In anticipation of future needs, we requested that the design of the proposed package plant would be able to provide a capacity of 35,000 gallons per day (gpd). At this time, we have no intentions of requesting an increase of the current 30,000 gpd limit as prescribed within our current NPDES permit. In the future, if influent flows demonstrate that an increase to our current permitted flow limit is needed, a permit modification will be submitted.

WESTERN CAROLINA ALLIANCE

COMMENT:

It appears that Alternatives "O", "A", "F", "G" and "H" are not being seriously considered by BLRI because they will result in little or no effluent quality improvement or could not be funded. If that assumption is correct, Alternatives "B", "C", and "F" appear to be the most favorable.

RESPONSE: A separate Value Analysis was conducted as part of the environmental assessment to select the preferred alternative, based on many factors, including effluent quality.

COMMENT:

We are especially interested in the membrane bioreactor package treatment system as it provides superior effluent quality. However, we have questions regarding each of these proposals, based on our recent research and on conversations with the NC Department of Environment and Natural Resources.

RESPONSE: No response needed.

COMMENT:

Alternative B

Would this be an enclosed system, whereby precipitation would not add to the treatment load? We would favor an enclosed package over an open process.

RESPONSE: It would be an enclosed package plant.

COMMENT:

This system would create sludge, which must be processed or removed from the site. How is this currently being done, and how would this sludge be handled under Alternative "B"?

RESPONSE:

Sludge would be handled in the same manner as it is currently – it is removed from the site several times a year by truck and disposed of at an approved facility.

COMMENT:

It appears that this system would provide barely, if any, improvement over the current system. Despite the "low cost", we question whether this is really the best option for replacing the existing plant regarding improved water quality and the best "bang for the bucks".

RESPONSE: The existing system is outdated and inefficient. There is also a problem with not meeting the Whole Effluent Toxicity (WET) tests. A new facility is required to bring the facility into full compliance.

COMMENT:

Alternative C

We like the idea of this alternative from an ecological angle, and would certainly be highly supportive if the topography was more level and if no forest canopy would be lost. We are concerned that the high altitude and steepness of slope may make this proposal impracticable. Further, we are concerned that construction of such a wetland would very possibly cause significant harm to the existing soil, plant and wildlife ecology in the local area. There is also very good chance that sediment from and during such construction would make its way into Flat Laurel Creek, especially during storm events. Best Management Practices which work well in the Piedmont and Coastal Plain often fail during such events in the Mountain province.

RESPONSE: The wetland treatment option was eliminated primarily on the basis of the adverse effects on terrestrial habitat on top of the mountain.

COMMENT:

Alternative F

This alternative looks the most favorable as it significantly improves effluent quality and is not significantly higher in cost. The Town of Highlands has apparently has had success with this technology and is in the process of upgrading its membrane bioreactor package capacity. It is our understanding that this can be an enclosed or open system, so we would again urge that an enclosed package be utilized. Also, apparently these systems have a built-in sludge treatment process (either as standard equipment or as an option?). This seems to be a better approach than having to deal with a separate sludge removal process. We would urge that this be included if that is the case.

RESPONSE: This alternative was eliminated on the basis of the added costs of zone treatment. Capital costs exceeded available funding.

COMMENT:

In conclusion, we urge BLRI to give strong consideration to Alternative F and implement this if it continues to appear favorable. We believe that the new plant should be a significant, rather than a slight, improvement over the existing, aging treatment technology. We encourage BLRI to consult with the Town of Highlands and also with Western Carolina University/Cullowhee since membrane bioreactor technology is to be implemented there, as well in the near future.

RESPONSE: This alternative had to be eliminated on the basis of the added costs of zone treatment. Capital costs exceeded available funding.

NORTH CAROLINA WILDLIFE RESOURCES COMMISSION

COMMENT:

Potential effects of the project on aquatic and terrestrial habitats, and measures to mitigate these potential effects.

RESPONSE: These potential effects will be mitigated by implementation of best management practices for controlling soil erosion

COMMENT:

Potential effects of sedimentation and plant discharges on Pisgah Creek downstream of the plant, which supports wild trout.

RESPONSE: These potential effects will be mitigated by implementation of best management practices for controlling soil erosion

COMMENT:

Potential effects on wetlands, streams and upland habitats should be quantified.

RESPONSE: Please refer to the response to comment #1 North Carolina Department of Environment and Natural Resources regarding wetlands. No upland habitat would be affected by the project since all construction will occur in previously disturbed areas. Potential effects on Flat Laurel Creek and Pisgah Creek due to soil erosion will be mitigated by implementation of best management practice.

COMMENT:

Potential effects on Southern Appalachian Bog and Carolina northern flying squirrel. They noted that the main measure to protect flying squirrels would be to avoid cutting spruce, fir and yellow birch and to avoid altering hydrology in drainages and spring seeps.

RESPONSE: No effects on the Southern Appalachian Bog within the Developed Zone would occur, since this habitat occurs in the campground, not on the wastewater treatment site.

There is a potential for the Carolina northern flying squirrels to occur along the access road leading to the proposed wastewater treatment plant site. No squirrels have been observed along the access road by the National Park service to date, but they do occur on both sides of the treatment plant. Therefore, it is likely that they use the area, and could occupy trees in the vicinity of the access road. No squirrels have been caught in the nest boxes that the National Park Service has placed closest to the access road. Since no construction will occur outside the previously disturbed wastewater treatment plant site, no adverse effects on the Carolina northern flying squirrel are predicted.

COMMENT:

They requested that bear proofing measures be implemented in the project to the greatest degree possible, since bears have been know to frequent the site in the past.

RESPONSE: Bears are common in the area surrounding the plant. Bear proofing measures will be implemented during construction and operation of the plant.

THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, ASHEVILLE REGIONAL OFFICE

COMMENT:

This agency noted that the Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity, and that an Erosion & Sedimentation Control Plan would be required for disturbance of areas of one or more acres.

RESPONSE: These potential effects will be mitigated by implementation of best management practices for controlling soil erosion

THE U.S. FISH AND WILDLIFE SERVICE

COMMENT:

This agency noted that they had already commented on the potential effects of the previous Mt. Pisgah Developed Area rehabilitation project. They also noted that the previous project was not likely to adversely affect any federally listed species.

RESPONSE: No response needed.

THE TRIBAL HISTORIC PRESERVATION OFFICER FOR THE EASTERN BAND OF CHEROKEE INDIANS

COMMENT:

This agency noted that the proposed project is located within the aboriginal territory of the Eastern Band of Cherokee Indians, and that the area may have cultural, archeological or religious significance.

RESPONSE: All construction would occur within the previously disturbed plant site. No adverse effects on cultural, archeological or religious resources will therefore occur.

COMMENT:

Potential cultural resources in the area are "subject to damage or destruction from land disturbing activities requiring new ground disturbance, or vegetation manipulation".

RESPONSE: All construction would occur within the previously disturbed plant site. No adverse effects on cultural, archeological or religious resources will therefore occur.

COMMENT:

"….adverse effects to ethnographic sites, such as traditional Native American campsites or burials, can reduce interpretive or spiritual significance of a site to Tribal and United States culture and history."

RESPONSE: All construction would occur within the previously disturbed plant site. No adverse effects on cultural, archeological or religious resources will therefore occur.

COMMENT:

They requested that the National Park Service provide them with any information on cultural resources created as part of the environmental assessment for comment.

RESPONSE: The National Park Service does not anticipate any adverse effects on cultural, archeological or religious resources within the construction site since the entire construction footprint is located inside a previously disturbed area. We will, however, continue to coordinate with the Eastern Band of Cherokee Indians as needed on this issue.

THE NORTH CAROLINA DEPARTMENT OF ADMINISTRATION

COMMENT:

This agency noted that the scoping letter had been received and forwarded to the State Clearinghouse for review.

RESPONSE: no response needed.

THE UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE (SUPERVISORS OFFICE IN ASHEVILLE, NC)

COMMENT:

This agency stated that they "have been aware that the nutrient levels in the receiving stream have been higher than we consider desirable, and assume that the new facility will bring these nutrient levels down to an acceptable range. Should this be the case we will look forward to evaluating the restoration potential of the receiving stream and work toward a restoration project.

RESPONSE: The new facility will meet all NPDES discharge limits. Restoration of the receiving stream is not deemed necessary. The proposed project will have a moderate, long-term beneficial effect of water quality by generally improving the overall quality of water in Flat Laurel Creek.