

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

4.0 AFFECTED ENVIRONMENT

4.1 Water Resources/Water Quality

The Swannanoa River at the Parkway Bridge crossing occurs at River Mile 174 and flows generally in a westerly direction to its confluence with the French Broad River (approximately five miles west). This section of the Swannanoa River is considered a good to fair quality stream as assessed by macroinvertebrate studies conducted approximately 1.5 miles downstream (at NC 81/I-240) and fish surveys 3.0 miles downstream (at US 25) (NCDENR, 2000). The stream supports a “put and take” trout fishery (brook, brown, and rainbow) that is managed by the North Carolina Wildlife Resources Commission (NCWRC, 2003; Woolpert LLP, 2001). Assessments of non-point source activities and water quality impacts (*e.g.*, from excess nutrients and chemicals) are being undertaken through studies such as the Swannanoa River Watershed Project and efforts by various environmental groups such as RiverLink (RiverLink WebPages, 2003).

The Swannanoa River in the vicinity of the project area was re-routed in the 1960s as a result of fill materials deposit at the proposed beneficial fill site during Interstate 40 construction (Woolpert LLP, 2001).

4.2 Terrestrial Flora

The project is within the Blue Ridge Mountain physiographic province. Biologically, the area is referred to as the southern Appalachian section of the oak-chestnut forest region (Braun, 1950). The original forest canopy was dominated by trees that included American chestnut (*Castanea dentata*), northern red oak (*Quercus rubra*), white oak (*Quercus alba*), black oak (*Quercus velutina*), scarlet oak (*Quercus coccinea*), chestnut oak (*Quercus prinus*), tulip tree (*Liriodendron tulipifera*), Eastern hemlock (*Tsuga canadensis*), shortleaf pine (*Pinus echinata*), and pitch pine (*Pinus rigida*).

Currently, a cursory examination of vegetation characteristic of the river bank area by the bridge and along the access road leading to the beneficial fill site revealed a typical highly disturbed site with a number of invasive species present. For a listing of those plants considered invasive or noxious by the state of North Carolina, please refer to Appendix E. Typical woody floodplain species include black walnut (*Juglans nigra*), box elder (*Acer negundo*), silver maple (*Acer saccharinum*), black willow (*Salix nigra*), tree-of-heaven (*Ailanthus altissima*), sycamore (*Platanus occidentalis*), tulip tree (saplings only), privet (*Ligustrum* sp.), choke-cherry (*Prunus virginiana*), wild rose (*Rosa* sp.), raspberry (*Rubus* sp.), bittersweet (*Celastrus* sp.), vine honeysuckle (*Lonicera* sp.), kudzu (*Pueraria lobata*), and poison ivy (*Toxicodendron radicans*). Herbaceous species include ragweed (*Ambrosia* sp.), smartweed (*Polygonum* sp.), giant cane (*Arundinaria gigantea*), goldenrod (*Solidago* sp.), sneezeweed (*Helenium autumnale*), Queen Anne’s lace (*Daucus carota*), red clover (*Trifolium pratense*), chickory (*Cichorium intybus*), crabgrass (*Digitaria* sp.), broom-sedge (*Andropogon virginicus*), milkweed (*Asclepias* sp.), pokeberry (*Phytolacca americana*), lespedeza (*Lespedeza* sp.), fescue (*Festuca* sp.), and other grasses.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

4.3 Visitor Experience/Viewshed

A team of NPS landscape architects and local citizens conducted a Scenic Quality Assessment (SQA) along the Blue Ridge Parkway near Asheville on October 26, 2000 (NPS, unpublished). The identified viewpoint in this study that encompassed the project area was “Swannanoa River Floodplain-elevated,” looking north from Parkway Mile 383.7 (see Photos 1 and 2). This viewpoint along the Parkway received a total score of 8.25, which is medium, and the duration was estimated at 0.5 second. As there are no places for vehicles to pull off of the road and no overlooks along this section of the Parkway, the only time the project area would be visible is during the brief period when visitors are traveling over the Swannanoa River bridge.



Photo 1 View looking east from the beneficial fill site towards the BLRI Swannanoa River bridge.

4.4 Socioeconomics

The City of Asheville evaluated seven alternative locations for a new beneficial fill site. The city is currently using one of these sites, Burney Mountain Road. The annual tipping cost for the Burney Mountain site is approximately \$100,000. The distance to the Burney Mountain site, approximately 16 miles one-way from the center of Asheville, also increases transportation and labor costs. Prior to using the Burney Mountain Road location, the city had been using the Buncombe County Landfill at an annual cost of \$400,000. In an analysis of parameters desired for a new beneficial fill site, the city not only wanted to reduce overall costs, but wanted access control of the site, and a location having a long useable life span. Consequently, the Azalea Road site (within the planned Azalea Road Park) was chosen as the best alternative, though ROW access from the NPS would be required.



Photo 2 Viewshed looking west from the Swannanoa River bridge towards the beneficial fill site in the far background beyond the small group of trees in the old field area.

The Azalea Road site is remote (not visible from any residences or businesses), and the city owns the entire beneficial fill site.

4.5 Traffic Safety

Bridge 43 and the adjacent unpaved roadway access to the beneficial fill site, is only accessible via Azalea Road. Azalea Road is located north and east of the Swannanoa River between US 70 (Tunnel Road) on the east and State Route 81 (Swannanoa River Road) on the west (see Figure 3). Azalea Road is a relatively narrow two-lane (roughly 10-foot lanes), asphalt-paved road primarily serving local traffic. Poor sight distances are characteristic of several areas along Azalea Road where there are sharp curves. The portion of Azalea Road adjacent to Bridge 43 is straight with some overhanging trees; however, there are minimal roadway shoulders to

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

accommodate parking vehicles along the road (see Photo 3). The access road leading to the city-owned beneficial fill site begins at Azalea Road as a 0.10-mile abandoned gravel road (formerly State Route 2836), proceeds south across the Swannanoa River (Bridge 43), and then turns southwest along a 0.15-mile abandoned, city-maintained section of State Route 2766 (Hemphill Road) to the beneficial fill site. The NPS maintains a locked gate across the north end of the bridge adjacent to Azalea Road in order to control access. Current users of the Parkway Bridge 43 include the Men's Garden Club of Asheville (which has a Horticultural Center on city property just east of the beneficial fill site), members of the Billy Graham Training Center at the Cove, Mountains to Sea Trail Hikers, and PE maintenance and line crews. The Cove uses the bridge access as an emergency entrance/exit during the summer camp season, with daily access primarily by vendors and maintenance personnel.

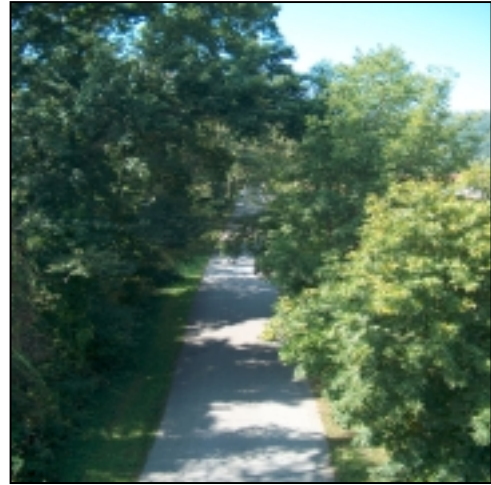


Photo 3 View of Azalea Road in the vicinity of the project area looking west from off of the BLRI Swannanoa River bridge.

The bridge deck is highly deteriorated (see Photos 4 and 5). The NPS recently repaired/replaced deteriorated wooden railings on the bridge. Federal Highway Administration personnel inspected the bridge structure in 1999. They found the bridge in overall fair condition and structurally safe for automobiles and pickup trucks. However, they listed several repairs that need to be made in order to rate the bridge at the necessary HS15 (15 ton) rating for heavy construction equipment (dump trucks). The city plans to make these repairs as part of deck replacement if the ROW permit is approved.



Photo 4 View looking north across Bridge #43

Traffic along the roadway leading up to the access road is not currently considered congested in any way. This is likely not to change in the near future. Statistics available from the Asheville Police Department indicate motor vehicle accidents at or near the intersection of US 70 and Azalea Road as follows: one in 1999, one in 2000, four in 2001, two in 2002, and three in 2003 (through October 31).

4.6 Park Operations

Existing NPS operations in the vicinity of the project area are minimal; however, the NPS does have permitting and maintenance duties many other places within the BLRI. Aside from routine maintenance of the Parkway adjacent to the project area, the NPS conducts infrequent inspections of Bridge 43 and NPS lands between the bridge and the beneficial fill site. There is no formal oversight of individuals, organizations, and utilities that have access through NPS property, such as campers and vendors accessing the Cove, hikers on the Mountains to Sea Trail, members of the Men's Garden Club of Asheville, and PE or Southern Railroad line workers.



Photo 5 View looking south across Bridge #43.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

5.0 ENVIRONMENTAL CONSEQUENCES

This section of the EA forms the scientific and analytic basis for the comparisons of alternatives as required by 40 CFR 1502.14. This discussion of impacts (effects) is organized by resource area in parallel with Section 4.0 (Affected Environment). The No-Action Alternative and the action alternatives are discussed within each resource area. To the extent possible, the direct, indirect, short-term, long-term, beneficial, and adverse impacts of each alternative are described for each resource area.

5.1 Intensity, Duration, and Type of Impact

The evaluation of alternatives took into account whether the impacts would be negligible, minor, moderate, or major. Duration of impacts was evaluated based on the short or long-term nature of alternative-associated changes on existing conditions. More exact interpretations of intensity and duration are given for each resource area examined. Professional judgement is used to reach reasonable conclusions as to the intensity and duration of potential impacts. Type of impact refers to the beneficial or adverse consequences of implementing a given alternative.

5.2 Cumulative Impacts

The CEQ regulations, which implement NEPA, require an assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7).

Cumulative impacts were determined by combining the impacts of the proposed alternative with potential other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or foreseeable future projects within the vicinity of the beneficial fill site and, if necessary, the surrounding region. Reasonably foreseeable cumulative actions include:

- Establishment of the City of Asheville’s 155-acre Azalea Road Park.

5.3 Impairment Analysis

The National Park Service Management Policies (NPS, 2001) requires an analysis of potential effects to determine whether or not actions would impair the parks’ resources or values. The fundamental purpose of NPS, as established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. The BLRI enabling legislation, as amended, further mandates resource protection. NPS managers must always seek ways to avoid or minimize to the greatest degree practicable, actions that would adversely affect BLRI resources and values.

These laws give NPS the management discretion to allow impacts to BLRI resources and values when necessary and appropriate to fulfill the purposes of the park, so long as the impact does not constitute impairment of the affected resources and values. Although Congress has given NPS the management discretion to allow certain impacts within the park, that discretion is

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

limited by the statutory requirement that NPS must leave the park resources and values unimpaired, unless a particular law directly and specifically provides otherwise.

A prohibited impairment is an impact that, in the professional judgement of the responsible NPS manager, would harm the integrity of park resources or values. An impact to any park resource or value may constitute impairment. Impairment may result from NPS activities in managing the park from visitor activities or from activities undertaken by concessionaires, contractors, and any other operators inside the park. Impairment of resources can also occur from activities outside BLRI boundaries. An impact would be more likely to constitute impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park.
- Key to the natural or cultural integrity or to opportunities for enjoyment of the park.
- Identified as a goal in the park GMP/EIS or other relevant NPS planning documents.

A determination of impairment is made within this section, Environmental Consequences, under each alternative for water resources/water quality, terrestrial flora, visitor experience/viewshed, socioeconomics, traffic safety, and park operations.

5.4 Impacts on Water Resources/Water Quality

5.4.1 Methodology

Analysis focused on the risk of fuel and other material spills associated with truck traffic along Azalea Road (primarily along the city's selected access route between US 70 [Tunnel Road] and BLRI property adjacent to the Swannanoa River), on Bridge 43, and along gravel road approaches to the beneficial fill site. Although, by permit, the city would only be transporting inert fill materials, increased site access and use increases the possibility of unauthorized or unwitting transport and spillage/dumping of petroleum-based or other contaminated materials, which could find their way into the Swannanoa River. The effect of adding geotextiles along portions of the approach roadway may also increase any roadway runoff contaminated with gasoline, oils, greases, and/or other chemicals from normal operations.

Basis of Analysis—

- **Truck Traffic**—The analysis is discussed in terms of increased or decreased risk of accidents and fuel spills that could enter the Swannanoa River.
- **Fill Composition of the Beneficial Fill Site**—The analysis is discussed in terms of the potential introduction of petroleum-based materials and other chemical substances into the beneficial fill site, which could impact the Swannanoa River.
- **Runoff and Percolation**—The analysis is discussed in terms of the changes in impervious surface from adding geotextiles along portions of the roadway access to the beneficial fill site, and any related changes in runoff potentially contaminated with gasoline, oils, and or other chemicals.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

Intensity:

- **Negligible**—Any positive or negative changes in Swannanoa River water quality, such as turbidity or changes in any contaminant level, that would be detectable using water quality instrumentation, but would be undetectable visually and would leave water quality within those limits defining a relatively good upper perennial riverine system.
- **Minor**—Positive or negative changes in water quality that would be measurable with instrumentation, but would not generally be noticeable to the public. The changes would not impact the diversity of aquatic flora/fauna in the Swannanoa River.
- **Moderate**—Positive or negative changes in water quality would be measurable with instrumentation and would be noticeable to the public. The changes would positively or negatively impact the diversity of aquatic fauna in the Swannanoa River. Mitigation measures to minimize negative water quality impacts would be necessary.
- **Major**—Positive or negative changes in water quality would be substantial in terms of turbidity, sedimentation, and (possibly) contamination. Diversity of aquatic life in the Swannanoa River would be substantially improved or adversely impacted. Mitigation measures to minimize negative water quality impacts would be necessary.

Duration:

- **Short-Term**—Lasting less than a month after a one time incident.
- **Long-Term**—A change in water quality conditions lasting for a number of months or years following either a one time incident or as a result of an essentially permanent/chronic release of contaminant material.

5.4.2 No-Action Alternative

Analysis—

- **Truck Traffic**—The No-Action Alternative involves no increase in truck traffic on Bridge 43 across the Swannanoa River or the approach roads. Consequently, there would be no increased risk of accidents and spills of fuel or beneficial fill into the river that could affect water quality.
- **Fill Composition of the Beneficial Fill Site**—The No-Action Alternative would involve no new fill activities at the beneficial fill site. Consequently, there would be little potential for unauthorized or unwitting dumping of chemicals and petroleum-based materials that could affect water quality.
- **Runoff and Percolation**—The No-Action Alternative would not affect the amount of impervious surface area within the river's floodplain, as the approach road to the beneficial fill site would not be improved with geotextiles. Consequently, there would be no increase in storm water runoff that would affect water quality.

Cumulative Impacts—The future establishment of the Azalea Road Park, located to the west of the project site, may increase the quantity and decrease the quality of storm water run-off into the Swannanoa River from additional impervious surfaces associated with parking lots and park roads. Once the park is in place, maintenance activities, such as possible lawn chemical applications, may also increase the potential for contaminants in run-off reaching the Swannanoa River. However, the No-Action Alternative would not cumulatively contribute to potential park-associated water quality degradation. Therefore this Alternative would have no cumulative impact on Swannanoa River water quality.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

Conclusion—The No-Action Alternative would not impact Swannanoa River water quality either individually or in combination with the possible future development of Azalea Road Park. Therefore, the No-Action Alternative would have no impact on the Swannanoa River.

Impairment—There would be no impairment of water resources within NPS boundaries from this alternative.

5.4.3 Preferred Alternative

Analysis—

- **Truck Traffic**—The Preferred Alternative would result in ROW access for the City of Asheville, with an average of 5 to 7 truck loads daily of beneficial fill transported across NPS property to the city-owned site. The increase in truck traffic on Bridge 43 across the Swannanoa River, and the approach roads, could result in a long-term, negligible, adverse impact upon water quality because of an increased risk of accidents and spills of fuel.
- **Fill Composition of the Beneficial Fill Site**—The Preferred Alternative would result in new fill activities at the beneficial fill site. Consequently, there would be long-term, though negligible, potential for unauthorized and unwitting dumping of chemicals and petroleum-based materials that could affect water quality. Also, there would be a 250-gallon diesel tank located near the beneficial fill site to supply on-site earth-moving equipment with fuel. The presence and operation of this tank presents the potential for long-term, negligible, adverse impacts from leakage and/or spill of fuel that could affect water quality.
- **Runoff and Percolation**—The Preferred Alternative would result in overlaying the existing roadbed between Bridge 43 and the beneficial fill site with geotextiles that are semi-permeable. Consequently, there could be a long-term, minor increase in storm water runoff carrying contaminants from this modified roadbed.

Cumulative Impacts—The proposed Azalea Road Park may generate additional run-off into the Swannanoa River both from construction of the park, as well as use and maintenance activities. Lawn chemical application and increased vehicular traffic associated with the proposed park would also increase the potential for surface water contamination. Implementation of the Preferred Alternative, along with Azalea Road Park development, would cumulatively have a long-term, minor, adverse impact on Swannanoa River water quality.

Conclusion—Individually, the Preferred Alternative would have a long-term, minor, adverse impact on water quality along the adjoining segment of the Swannanoa River. Cumulatively, this alternative would have a long-term, minor, adverse impact on water quality.

Mitigative Action—The 250-gallon fuel tank would be maintained on a curbed, concrete pad to contain any spills. Spill kits would be kept on site to contain any fuel spills associated with truck operations or with vehicular accidents.

The City of Asheville would need to comply with the state-approved Erosion and Sedimentation Control Plan in accordance with North Carolina General Statute 113A-57(4) and 113A-54(d)(4); North Carolina Administrative Code (NCAC), Title 15A, Chapter 4B.0007(c); and NCAC, Title 15A, Chapter 4B.0027(b)[see approval letter in Appendix C]. The approved plan is conditional upon continual compliance with applicable federal and state water quality laws, regulations, and rules. Furthermore, the 10-year right-of-way permit to the City of Asheville must stipulate that runoff from the beneficial fill site would be controlled as much as possible.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

Impairment—There would be no impairment of water resources within NPS boundaries by this alternative.

5.5 Impacts on Terrestrial Flora

5.5.1 Methodology

Impact analysis focused on the potential seed bank of non-native plant species existing in the transported fill material.

Basis of Analysis—

- **Movement of Fill Material**—The analysis is discussed in terms of the risk of spreading or introducing non-native and/or invasive plant species into the vicinity of the beneficial fill site, along the adjacent railroad ROW, and along the Swannanoa River embankments (please refer to lists of invasive species and applicable regulations in Appendix E).

Intensity:

- **Negligible**—No noticeable change in the existing composition of non-native and/or invasive plant species on BLRI property or immediately adjacent areas even with routine floral surveys.
- **Minor**—An increase or decrease in existing species of non-native and/or invasive plant species on BLRI-owned and adjacent properties noticeable only through routine plant surveys and using existing plant community conditions as a baseline.
- **Moderate**—An increase in existing species of non-native and/or invasive plant species on BLRI-owned and adjacent properties noticeable without routine plant species surveillance and/or the introduction of a new aggressive non-native species triggering the need for increased surveillance and/or limited localized suppressive measures. Decreases in non-native and/or invasive plant species on BLRI-owned or adjacent properties noticeable without routine plant species surveillance or the use of baseline data.
- **Major**—A large-scale, highly noticeable change in the composition of plant species, particularly an increase in non-native and/or invasive plant species on BLRI-owned and adjacent properties resulting from the introduction of a new species requiring localized or regional suppression, or the decrease in the number of non-native and/or invasive plant species resulting from active management measures.

Duration:

- **Short-Term**—Changes noticeable only for one season or less with a subsequent return to existing baseline conditions.
- **Long-Term**—Essentially a permanent change in plant community composition.

5.5.2 No-Action Alternative

Analysis—

- **Movement of Fill Material**—The No-Action Alternative would involve no transport of fill materials across BLRI properties or activities at the Azalea Road beneficial fill site.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

Consequently, there would be no impact from this alternative on the spread of non-native and/or invasive plant species on BLRI-owned and adjacent properties.

Cumulative Impacts—Future development of Azalea Park Road could reduce some existing populations of non-native or invasive plants in areas adjacent to the beneficial fill site. By the same token, park development could also introduce additional new species of non-native or invasive plants that could conceivably escape cultivation and create additional problems in adjacent areas. However, in either possible case, the No-Action Alternative would not contribute cumulatively to impacts upon park development.

Conclusion—The No-Action Alternative would have no impact as an individual action or cumulatively on the spread of non-native and/or invasive plant species on BLRI-owned and adjacent properties.

Impairment—There would be no impairment of terrestrial plant communities within NPS boundaries by this alternative.

5.5.3 Preferred Alternative

Analysis—

- **Movement of Fill Material**—The Preferred Alternative would involve the daily transport (average of five to seven truck loads) of fill materials to the city-owned beneficial fill site as well as various fill site operational activities such as grading and compacting. Each load of fill delivered to the site would probably contain some seeds, tubers, underground stems, or other potentially propagative materials that could become established at or near the beneficial fill site. Consequently, there would be a long-term though minor increase in the potential for additional non-native and/or invasive plant species introductions onto BLRI-owned and adjacent properties as a result of the Preferred Alternative.

Cumulative Impacts—Future development of Azalea Park Road could reduce some existing populations of non-native or invasive plants in areas adjacent to the beneficial fill site. By the same token, park development could also introduce additional new species of non-native or invasive plants that could conceivably escape cultivation and create additional problems in adjacent areas. However, the presence of grounds personnel working at the future city park would increase the likelihood of early detection of new non-native and/or invasive species problems in the immediate area. Therefore, the Preferred Alternative, combined with the possible future park development, would have a cumulative long-term, negligible beneficial impact on reducing the impacts of non-native and/or invasive species on surrounding native plant communities.

Conclusion—The Preferred Alternative would result in a long-term, minor, adverse impact regarding the potential introduction or increase of new or existing non-native and/or invasive plant species on BLRI-owned and adjacent properties. However, cumulatively, this alternative would have a long-term, negligible, beneficial impact on monitoring existing or detecting new non-native and/or invasive plant species on BLRI-owned or adjacent properties.

Impairment—There would be no impairment of terrestrial plant communities within NPS boundaries by this alternative.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

5.6 Impacts on Visitor Experience/Viewshed

5.6.1 Methodology

Impact analysis focused on the visibility of the site from the Parkway, localized dust generation, the presence of exposed soil areas, and mounded earth associated with the beneficial fill site and/or approach roadway.

Basis of Analysis—

- **Site Visibility and Dust Generation**—The analysis is discussed in terms of whether trucks, exposed soils, mounded earth, and associated dust at the beneficial fill site and/or access roads are visible to travelers on the adjacent Parkway and for what period of time.

Intensity:

- **Negligible**—No noticeable daily truck traffic, dust generation, or exposed soil/mounded fill areas at the beneficial fill site and/or along access roadways.
- **Minor**—Daily truck traffic, dust generation, and exposed soil/mounded fill areas at the beneficial fill site and/or access road would be briefly noticeable (*i.e.*, less than 1.0 second) to Parkway travelers crossing the Swannanoa River bridge. Viewshed enhancements and dust suppression barely noticeable to Parkway travelers such as minor additional tree screening or revegetation of bare soil areas.
- **Moderate**—Daily truck traffic, dust generation, and exposed soil/mounded fill areas at the beneficial fill site and/or access roads would be visible for several seconds to Parkway visitors and/or dust generation would be of a magnitude that it periodically would be noticeable blowing across the Parkway. Viewshed enhancements substantially screening/obscuring disturbed areas visible from the Parkway's Swannanoa River bridge and eliminating dust generation from the beneficial fill area.
- **Major**—Daily truck traffic, dust generation, and exposed soil/mounded fill areas at the beneficial fill site and/or access roads would be conspicuously visible and there would be considerable generation of blowing dust to the point of detracting from visitors' Parkway experience. Viewshed enhancements totally screening/obscuring disturbed areas visible from the Parkway's Swannanoa River bridge and eliminating dust generation from the beneficial fill area.

Duration:

- **Short-Term**—Conditions lasting only during the first several months after the start up of beneficial fill operations.
- **Long-Term**—Essentially a permanent change in conditions characterized by on-going beneficial fill operations.

5.6.2 No-Action Alternative

Analysis—

- **Site Visibility and Dust Generation**—The No-Action Alternative would not involve any daily truck traffic or associated dust generation from transport of fill materials to the beneficial fill site. The No-Action Alternative would also not expose bare soil areas or

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

create mounded fill within the beneficial fill site visible from the Parkway. Consequently, the No-Action Alternative would have no impact on beneficial fill site visibility or dust generation.

Cumulative Impacts—Eventual construction of Azalea Road Park with its athletic fields and landscaped areas could eventually enhance the viewshed looking west from the Swannanoa River bridge. The No-Action Alternative could result in the city incorporating the planned beneficial fill site into Azalea Road Park facilities earlier in the development of the park thus further enhancing site aesthetics. However, the impact of the No-Action Alternative on future use of the planned beneficial fill site cannot be definitely known at this time. Therefore, the No-Action Alternative would have a long-term, negligible, beneficial, cumulative impact on Parkway visitor experience and the viewshed of the Swannanoa River valley.

Conclusion—The No-Action Alternative would result in no individual, short-term or long-term impacts upon the viewshed along the BLRI in the vicinity of the Swannanoa River bridge. This alternative would have a cumulative, long-term, negligible, beneficial impact when combined with the planned development of Azalea Road Park.

Impairment—There would be no impairment of viewshed or visitor experience by the No-Action Alternative.

5.6.3 Preferred Alternative

Analysis—

- **Site Visibility and Dust Generation**—The Preferred Alternative would result in an average of five to seven truckloads of fill materials transported to the beneficial fill site daily. The associated traffic and any generated dust would be visible on an irregular basis to BLRI travelers for a very brief interval (approximately 0.5-second traveling at 45 mph on the Parkway). The Preferred Alternative would also result in daily earth-moving (scraping and mounding) of fill materials transported to the beneficial fill site. The resulting bare soil areas and irregular topography would be potentially visible to BLRI visitors traveling over the Swannanoa River bridge at any time during daylight hours. Consequently, the Preferred Alternative would result in a long-term, minor, adverse impact upon the viewshed along the BLRI in the vicinity of the Swannanoa River bridge.

Cumulative Impacts—Eventual construction of Azalea Road Park with its athletic fields and landscaped areas could eventually enhance the viewshed looking west from the Swannanoa River bridge. However, incorporation of the beneficial fill site into park development would not occur until closure of the beneficial fill site activities, which is not predicted to occur for over 30 years. Therefore, this alternative would have a long-term, minor adverse cumulative impact on BLRI visitor experience and the viewshed of the Swannanoa River valley.

Conclusion—The Preferred Alternative would result in an individual, long-term, minor, adverse impact to the viewshed along the Parkway in the vicinity of the Swannanoa River bridge. The Preferred Alternative would also have a cumulative, long-term, minor, adverse impact on the viewshed since long-term operation of the beneficial fill site would postpone incorporation of the site into the planned Azalea Road Park development.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

Mitigative Action—In order to minimize the fill site’s visibility to those traveling along the Parkway, screening trees would be planted in the open area between the fill site and the Parkway (further details under 6.0 Mitigation Measures).

Impairment—There would be no impairment of viewshed or visitor experience by the Preferred Alternative.

5.7 Impacts on Socioeconomics

5.7.1 Methodology

Impact analysis focused on the City of Asheville’s beneficial fill disposal costs, as well as site security, and useful life span of the site.

Basis of Analysis—

- **Beneficial Fill Disposal Costs**—The analysis is discussed in terms of distance/travel time costs, site tipping fees, and land acquisition costs.
- **Security/Control/Useful Life of the Beneficial Fill Site**—The analysis is discussed in terms of security of the site, control of unauthorized dumping, and useful life span of the site.

Intensity:

- **Negligible**—Little to no increase or decrease in beneficial fill disposal costs to the city or in site security or useful life span of the beneficial fill site.
- **Minor**—A slight increase or decrease (relative to the calculated change in cost of living) in annual costs to the city for disposing of beneficial fill with essentially no change in site security or useful life span.
- **Moderate**—An increase or decrease (at the calculated change in cost of living) in annual costs to the city for disposing of beneficial fill with some improvement or degradation of beneficial fill site security and/or overall useful life span.
- **Major**—An increase or decrease (higher or lower than the calculated change in cost of living) in annual costs to the city for disposing of beneficial fill with substantial improvement or degradation of beneficial fill site security and/or overall useful life span.

Duration:

- **Short-Term**—Changes lasting less than two years.
- **Long-Term**—Changes lasting more than two years.

5.7.2 No-Action Alternative

Analysis—

- **Beneficial Fill Disposal Costs**—The No-Action Alternative would continue the current use of the Henderson County-Burney Mountain beneficial fill site by the City of Asheville. The Burney Mountain site is privately owned, relatively expensive (over \$17 per ton), and, because of its distance from Asheville, is also costly in terms of labor time and

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

transportation costs. Costs associated with using the Burney Mountain site over the next 30 years can also be expected to continue increasing at least at the calculated rate of change in cost of living, if not faster. Consequently, there would be short-term and long-term, moderate, adverse socioeconomic impacts resulting from this alternative.

- **Security/Control/Useful Life of the Beneficial Fill Site**—The Burney Mountain site is privately owned, therefore the City of Asheville has no control or liability associated with the site. However, security is considered adequate. The useful life of this site is approximately 30 years or more. Consequently, in regard to security and useful life of the beneficial fill site, the No-Action Alternative would have a long-term, minor, beneficial impact.

Cumulative Impacts—Continued use of the Burney Mountain Site for the City of Asheville's beneficial fill would lead to an on-going expense for the city with a reasonable likelihood that those expenses would increase over time (perhaps substantially). This could reduce city funds for other quality of life improvements including the construction of Azalea Road Park. Generally, the No-Action Alternative would have a cumulative, long-term, moderate adverse impact on socioeconomic conditions for the City of Asheville.

Conclusion—The No-Action Alternative would result in both individual and cumulative long-term, moderate, adverse impacts on the economics of beneficial fill activities, but long-term, minor beneficial impacts on site security and useful life.

Impairment—There would be no impairment of park socioeconomic resources from this alternative.

5.7.3 Preferred Alternative

Analysis—

- **Beneficial Fill Disposal Costs**—The Preferred Alternative would establish a city-owned beneficial fill site to south of the Swannanoa River. This alternative would cost the city an estimated \$12 to \$14 per ton in beneficial fill disposal costs. This would be a savings of \$3 to \$5 per ton over continued use of the Burney Mountain site based on current costs. Future costs to the city would also be expected to remain lower with the long-term availability and use of the city-owned beneficial fill site. Consequently, there would be an individual, long-term, moderate, beneficial, socioeconomic impact from implementing this alternative.
- **Security/Control/Useful Life of the Beneficial Fill Site**—The Preferred Alternative would relocate the beneficial fill site to the Azalea Road location, which is wholly owned and controlled by the City of Asheville. Also, the useful life span of the Azalea Road location is high (*i.e.*, 21 to 31 years). Consequently, there would be long-term, minor, beneficial, socioeconomic impacts associated with the Preferred Alternative.

Cumulative Impacts—The Preferred Alternative would save the City of Asheville substantial funds over the expected life span of the Azalea Road beneficial fill site. These savings could allow the city to increase expenditures in other areas that improve the quality of life of residents. Such improvements could include development of Azalea Park Road. Control of access to the beneficial fill site could possibly become problematic if Azalea Park Road development on the south side of the Swannanoa River proceeds prior to closure of the beneficial fill site. The beneficial fill site is in close proximity to planned athletic fields and other public recreational areas. Generally, however, the Preferred Alternative would have a

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

cumulative long-term, minor beneficial impact on socioeconomic conditions within the City of Asheville.

Conclusion—The Preferred Alternative would have an individual, long-term, moderate, beneficial economic impact and a long-term, minor, beneficial impact on site security and useful life span of the beneficial fill. This alternative would also have a cumulative, long-term, minor, beneficial impact on local socioeconomic conditions.

Impairment—There would be no impairment of park socioeconomic resources from this alternative.

5.8 Impacts on Traffic Safety

5.8.1 Methodology

Impact analysis focused on the safety of pedestrians/hikers on BLRI property in the vicinity of the beneficial fill site and on impacts to vehicular traffic safety along Azalea Road, across Bridge 43, and along gravel road access to the beneficial fill site. The analysis also addresses the load rating and long-term maintenance and inspection of Bridge 43.

Basis of Analysis—

- **Pedestrian Safety**—Analysis is discussed in terms of the proximity and number of pedestrians/hikers likely to share roadways and adjacent trails/walkways with potential truck traffic.
- **Vehicular Safety**—Analysis is discussed in terms of vehicular accident potential along the designated access routes for city-owned trucks traveling to and from the beneficial fill site. Also, the safety of the deck on Bridge 43 for all vehicular use is addressed.

Intensity:

- **Negligible**—No measurable change in pedestrian or vehicular safety from existing conditions.
- **Minor**—A slight potential or actual increase (based on historical accident data) in pedestrian-vehicle, as well as vehicular accidents, associated with an increase in average daily truck traffic of less than 10 trucks per day along the designated route. A slight potential decrease in accident rates along the designated access route from a reduction in truck traffic. Structural upgrades to attain a HS15 rating for Bridge 43.
- **Moderate**—A measurable increase (by comparison to historic accident data) in pedestrian-vehicle and/or vehicular accidents associated with an increase in average daily truck traffic of 10 to 15 trucks per day. A decrease in accident rates along the designated access route from a reduction in truck traffic. Structural upgrades to attain a HS15 rating for Bridge 43.
- **Major**—Measurable increases in accidents along the designated beneficial fill access route associated with an average increase in truck traffic of more than 15 trucks per day and requiring changes in traffic control at some intersections. A decrease in accident rates along the designated access route from reductions in truck traffic and improved traffic control. Structural upgrades to attain a HS15 rating for Bridge 43.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

Duration:

- **Short-Term**—Changes resulting from temporary (less than one month) increases or decreases in the level of truck traffic associated with beneficial fill access.
- **Long-Term**—Essentially a permanent change in accident potential and/or changes in the level of truck traffic resulting from changes in beneficial fill site operations.

5.8.2 No-Action Alternative

Analysis—

- **Pedestrian Safety**—The No-Action Alternative would continue the current use of the Burney Mountain beneficial fill site. Thus, there would be no increase in truck or other vehicular traffic along Azalea Road or on BLRI property and adjacent city property. The deck for Bridge 43 would not be replaced, though pedestrians would still be able to cross the bridge safely. Consequently, there would be no impact to pedestrian safety along Azalea Road, on BLRI property, or on city property as a result of the No-Action Alternative.
- **Vehicular Safety**—The No-Action Alternative would continue the current use of the Burney Mountain beneficial fill site. Thus, there would be no increase in truck or other vehicular traffic along Azalea Road or on BLRI property and adjacent city property. The deck for Bridge 43 would not be replaced and the approach road to the fill site would not be improved. The bridge would not be improved to handle heavy truck traffic. However, at least in the short term, the bridge improvements would not be necessary. Consequently, there would be no impact to traffic safety as a result of this alternative.

Cumulative Impacts—The proposed Azalea Road Park would increase vehicular traffic somewhat along Azalea Road between the US 70/Azalea Road intersection and BLRI property. However, most of the traffic increase associated with the proposed park would occur west of BLRI property between the State Route 81 (Swannanoa River Road)/Azalea Road intersection and the planned park facilities (see Figure 3). Since the No-Action Alternative would not add any vehicular traffic to the eastern end of Azalea Road, this alternative would cumulatively provide a negligible beneficial impact on vehicular traffic and safety when considered along with a long-term slight increase in park-associated traffic using the eastern portion of Azalea Road.

Conclusion—The No-Action Alternative would have no individual, short-term or long-term impact on pedestrian or vehicular safety in the vicinity of the Parkway and beneficial fill site. This alternative would provide a cumulative, long-term, negligible, beneficial impact to traffic safety when considered along with future Azalea Road Park development.

Impairment—There would be no impairment related to traffic safety on park-owned lands by this alternative.

5.8.3 Preferred Alternative

Analysis—

- **Pedestrian Safety**—The Preferred Alternative would relocate the beneficial fill site to the Azalea Road location with truck access across BLRI property and Bridge 43. Although minimal, there is pedestrian traffic in the vicinity of the bridge associated with various organizations including the Men's Garden Club of Asheville, the Cove, and individuals

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

utilizing the Mountains to Sea Trail. Consequently, there would be long-term, minor adverse pedestrian safety impacts from implementing this alternative.

- **Vehicular Safety**—The Preferred Alternative would relocate the beneficial fill site to the Azalea Road location with truck access across BLRI property and Bridge 43. Truck access to and from the beneficial fill site would be via the US 70/Azalea Road intersection and along the eastern section of Azalea Road to the Parkway. Trucks would not use the western section of Azalea Road or the State Route 81 (Swannanoa River Road)/Azalea Road intersection for beneficial fill site access. The increase in truck traffic through the US 70/Azalea Road intersection and along the eastern portion of Azalea would increase the potential for vehicular accidents. However, given the small number of predicted daily truck trips (an average of five to seven) and the generally light traffic along this roadway, this increased potential for accidents would be quite small. Nevertheless, the delays experienced by trucks waiting to unlock the access gate to the bridge while parked along or adjacent to Azalea Road would add to traffic safety concerns. Consequently, there would be a long-term, minor, adverse impact on vehicular safety as a result of this alternative (Note: Possible mitigative action to minimize such congestion is described in Section 6.0).

Cumulative Impacts—The proposed Azalea Road Park would increase truck traffic in the general Azalea Road vicinity, but most park traffic would be concentrated on the western portion of Azalea Road west of BLRI property. Undoubtedly, some minor increase in automobile traffic associated with the future park would also take place at the eastern end of Azalea Road. Therefore, the Preferred Alternative would have a long-term, minor, adverse impact on vehicular safety at the eastern end of Azalea Road.

Conclusion—The Preferred Alternative would result in individual and cumulative long-term, minor, adverse impacts to pedestrian and vehicular safety along the eastern portion of Azalea Road.

Mitigative Action—Mitigation measures that may reduce potential congestion and/or traffic hazards include creating a paved pull-off zone along Azalea Road northeast of the bridge, or moving the existing gate to the south end of the bridge. Moving the gate would provide room on the bridge to temporarily park trucks while the gate is unlocked. Any bridge closure for deck work would be coordinated with the Cove.

Impairment—There would be no impairment related to traffic safety on park-owned lands by this alternative.

5.9 Impacts on Park Operations

5.9.1 Methodology

Impact analysis is focused on NPS permit administration/monitoring and liability issues within NPS properties.

Basis of Analysis—

- **Permits Administration and Monitoring**—The analysis is discussed in terms of administrative requirements on the part of the NPS for issuing and monitoring permitted uses on BLRI property.
- **Liability Issues**—The analysis is discussed in terms of liability issues associated with permitted and general activities on NPS property.

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

Intensity:

- **Negligible**—No permits are required by entities outside the NPS jurisdiction. The potential liability for permitted and general activities is minimal.
- **Minor**—Permits are required by entities outside the NPS jurisdiction. The potential liability for permitted and general activities is minimal.
- **Moderate**—Permits are required by entities outside the NPS jurisdiction. The potential liability for permitted and general activities is moderate.
- **Major**—Permits are required by entities outside the NPS jurisdiction. The potential liability for permitted and general activities is substantial.

Duration:

- **Short-Term**—Impacts to NPS lasting only during a relatively short period when permits are issued/re-issued and not requiring monitoring.
- **Long-Term**—Administrative and potential liability impacts to NPS lasting throughout the duration of long-term (10 year) permits.

5.9.2 No-Action Alternative

Analysis—

- **Permits Required**—The No-Action Alternative would not require a ROW permit for the City of Asheville to access the Azalea Road beneficial fill site. There would be no additional permitting duties or monitoring duties for NPS personnel associated with this alternative. Therefore, there would be no impacts related to permits with this alternative.
- **Liability Issues**—The No-Action Alternative would not create additional potential liability issues as a ROW permit would not be granted to the City of Asheville for access to the Azalea Road beneficial fill site. Existing potential liability issues related to NPS-owned property, including Bridge 43 would continue.

Cumulative Impacts—The proposed Azalea Road Park would not add any additional administrative duties, permitting requirements, or liability issues concerning NPS management of the BLRI. There would be no cumulative impacts related to this issue area as a result of the No-Action Alternative.

Conclusion—The No-Action Alternative would have no impact on NPS administrative requirements, permit monitoring, or potential general liability.

Impairment—There would be no impairment of park operations from this alternative.

5.9.3 Preferred Alternative

Analysis—

- **Permits Required**—The Preferred Alternative would result in issuance of a ROW permit for the City of Asheville to access the Azalea Road beneficial fill site. This 10-year permit would require oversight by the NPS to ensure that the city is complying with the conditions of the permit. The NCDENR would be responsible for insuring that the state-approved sediment and erosion control plan submitted by the city is followed. State inspectors would

RIGHT-OF-WAY PERMIT FOR THE CITY OF ASHEVILLE TO ACCESS BLUE RIDGE PARKWAY BRIDGE

also be responsible for periodic inspection of the beneficial fill site to insure that only permissible materials were being placed in the fill. In terms of permits, NPS already monitors numerous permits pertaining to BLRI lands, so the management of this additional permit would not require a major increase in effort. Generally, this alternative would have a short and long-term, negligible adverse impact on the BLRI program issuing and monitoring permits.

- **Liability Issues**—Use of the Azalea Road beneficial fill site would require that NPS oversee city compliance with the ROW permit. Potential liability issues could include any alleged negligence on the part of the NPS regarding access and safety across BLRI property, and, possibly, involvement as a party to any suit alleging the dumping of unauthorized materials into the beneficial fill site. The Preferred Alternative would have a long-term minor adverse impact on NPS liability exposure.

Cumulative Impacts—The proposed development and operation of Azalea Road Park would not cumulatively impact NPS permitting requirements or increase potential liability issues associated with the Preferred Alternative implementation.

Conclusion—The Preferred Alternative would result in a short-term and long-term, negligible, adverse impact on the NPS permit administration program. This alternative would have a long-term, minor adverse impact on NPS liability exposure. There would be no cumulative impacts on park operations.

Impairment—There would be no impairment of park operations from this alternative.