

Fish and Wildlife Discipline Report

SR 3 Freight Corridor – New Alignment

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Attachment A – Informational Update for Endangered Species Act Consultation

Executive Summary

The proposed SR 3 Freight Corridor – New Alignment project would construct a two-lane, 6.5-mile highway with a design and posted speed of 50 miles per hour (mph) on a new alignment approximately 3,000 feet east of existing State Route (SR) 3. The major portion of the highway would run through Mason County while the northern end would be in Kitsap County. The proposed alignment would begin at MP 22.81 on SR 3 and connect back to the existing SR 3 alignment at MP 29.49 (see Figure 1). The north end connection to existing SR 3 is proposed just north of SW Lake Flora Road, and the south connection is just south of the intersection with SR 302.

The new roadway would be a managed access facility from the beginning of the alignment at MP 22.81 to the intersection with SR 302 (MP 23.26); then, the facility would switch to limited access from the intersection with SR 302 to the intersection with Lake Flora Road. The proposed bypass highway would carry regional through traffic from Shelton to Bremerton and would be the mainline for SR 3. The existing SR 3 would become a “Business Loop” serving downtown Belfair with connections to SR 106, SR 300, and the Old Belfair Highway.

The purpose of constructing the SR 3 Freight Corridor – New Alignment is to provide a reliable high-speed regional route between Kitsap and Mason Counties, moving freight and regional traffic between Shelton and Bremerton, thus bypassing the urban center of Belfair. This project would reduce congestion and improve safety through Belfair and would provide an alternate route during recurring highway closures resulting from vehicular crashes and other incidents. Implementation of this project would provide safe and reliable regional access to jobs, goods, and services, improve efficiencies for all public service providers, and reduce the current crash rate on SR 3 through Belfair.

The study area for the fish and wildlife discipline report is defined as the area of land approximately 300 feet on each side of the centerline of the project corridor. The affected environment includes the footprint of the project, and all areas where direct and indirect effects impacting fish and wildlife are likely to occur. The study area lies primarily within a rural environment while passing through the unincorporated Belfair urban growth area (UGA) and terminating within the Puget Sound Industrial Center - Bremerton (PSIC - B) recently annexed into the City of Bremerton.

The SR 3 Belfair Freight Corridor project is primarily located in the northeast corner of Mason County with the northern terminus of the project located in the southwest corner of Kitsap County. The land within the area is primarily rural and mostly undeveloped forested land. The proposed bypass project passes through a variety of land use zones and types within the 6.5-mile long and 600-foot wide study area.

The construction of the SR 3 Freight Corridor will have several unavoidable impacts to the environment and wildlife species including increased roadkill mortality, increased pollution generating impervious surface and habitat loss/fragmentation. All reasonable actions should be taken to build wildlife crossings where feasible.

Acronyms and Abbreviations

BMPs – Best Management Practices

CFR – Code of Federal Regulations

DNR – Department of Natural Resources

EA – Environmental Assessment

EIS – Environmental Impact Statement

FHWA – Federal Highway Administration

GIS – Geographic Information Systems

LOS – Level of Service

MBTA – Migratory Bird Treaty Act

MP – Mile Post

NMFS - National Marine Fisheries Service

OHWL – Ordinary High Water Line

PHS – Priority Habitat and Species

PSA – Puget Sound Area

PSIC-B – Puget Sound Industrial Center - Bremerton

ROW – Right of way

SEPA – Washington State Environmental Policy Act

SR 3 – State Route 3

UGA – Urban Growth Area

USFWS – United States Fish and Wildlife Service

WDFW – Washington State Department of Fish and Wildlife

WNHP – Washington Natural Heritage Program

WRIA – Water Resource Inventory Area

WSDOT – Washington State Department of Transportation

1 Introduction

Description of the Build Alternative (Proposed Action)

The proposed SR 3 Freight Corridor – New Alignment project would construct a two-lane, 6.5-mile highway with a design and posted speed of 50 miles per hour (mph) on a new alignment approximately 3,000 feet east of existing State Route (SR) 3. The major portion of the highway would run through Mason County; the northern end would be in Kitsap County. The proposed alignment would begin at MP 22.81 on SR 3 and connect back to the existing SR 3 alignment at MP 29.49 (see Figure 1). The south end connection to existing SR 3 is proposed just south of the intersection with SR 302, and the north connection is just north of SW Lake Flora Road.

The new roadway would be a managed access facility from the beginning of the alignment at MP 22.81 to the intersection with SR 302 (MP 23.26); then, the facility would switch to limited access from the intersection with SR 302 to the intersection with Lake Flora Road. The proposed bypass highway would carry regional through traffic from Shelton to Bremerton and would be the mainline for SR 3. The existing SR 3 would become a “Business Loop” serving downtown Belfair with connections to SR 106, SR 300, and the Old Belfair Highway.

The typical cross-section of the proposed improvement is shown in Figure 2. Construction elements would include the following:

- Two 12-foot travel lanes with 8-foot shoulders.
- Stormwater treatment facilities – natural dispersion and infiltration, compost-amended vegetated filter strips, and treatment wetlands.
- Two roundabouts to connect the south end of the new corridor to the existing SR 3 corridor at SR 302
 - » The western roundabout would provide access to the existing SR 3 corridor
 - » The eastern roundabout would provide access to SR 302 and the proposed SR 3 Freight Corridor
- A roundabout at the north end of the alignment to connect the existing SR 3 corridor to the new corridor at Lake Flora Road
- Right-in-right-out access to provide access to North Mason High School and Belwood Lane



Figure 1. SR 3 Freight Corridor Project Vicinity

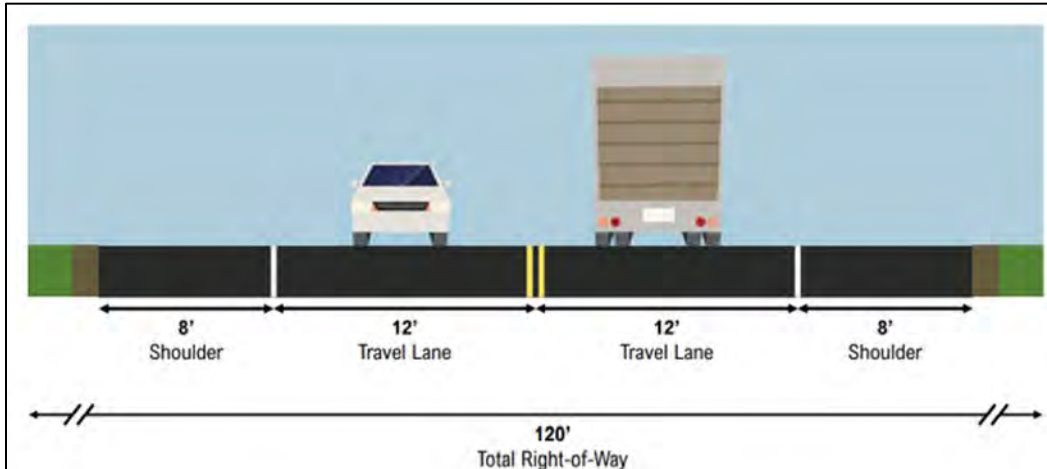


Figure 2. SR 3 Proposed Highway Cross-section

What is the Purpose of this Project?

The purpose of constructing the SR 3 Freight Corridor – New Alignment is to provide a reliable high-speed regional route between Kitsap and Mason Counties, moving freight and regional traffic between Shelton and Bremerton, thus bypassing the urban center of Belfair. This project would reduce congestion and improve safety through Belfair and would provide an alternate route during recurring highway closures resulting from vehicular crashes and other incidents. Implementation of this project would provide safe and reliable regional access to jobs, goods, and services, improve efficiencies for all public service providers, and reduce the current crash rate on SR 3 through Belfair.

Why is the SR 3 Freight Corridor – New Alignment Project Needed?

A Freight Corridor around Belfair is needed to improve regional mobility for freight, passenger vehicles, and transit. The improvements would increase mobility, reduce congestion through Belfair, and improve safety.

Increase Mobility

SR 3 in the Belfair urban area experiences chronic traffic congestion and declining operational Levels of Service (LOS) for traffic. Because SR 3 is the major north-south link between Mason and Kitsap counties, Belfair is a choke point on this regional highway and serves as the only freight route through southwest Kitsap and northeast Mason Counties. SR 3 is designated as a critical rural freight corridor and is part of the National Highway Freight Network (NHFN). SR 3 is also identified as a National Highway System (NHS) route and as a Highway of Statewide Significance (HSS). The National Highway System route designation extends from the Hood Canal Bridge in the north to Shelton in the south, passing through the Belfair urban area, the City of Bremerton, the Puget Sound Industrial Center - Bremerton (PSIC - B), and connecting with SR 16.

SR 3 carries most of the daily commute trips from SR 106, SR 300 and populated coastal areas in Mason County north to Bremerton and via SR 16 to points in Pierce and King Counties. Regional traffic using SR 3 must pass through the commercial area of Belfair having numerous access points with high turning volumes. Southbound traffic destined for Shelton, Grays Harbor, and Olympia also must pass through Belfair.

Reduce Congestion

A combination of freight, commute, and recreational traffic volumes cause severe congestion through the Belfair urban area. Congestion is occurring during peak commute hours (7:00-9:00 AM and 4:00-6:00 PM), weekends, holidays, and during the tourist season (May-September).

SR 3 had an average of 19,000 vehicles per day in 2018 south of Lake Flora Road. Highway LOS analysis shows the one-mile segment of SR 3 north of Lake Flora Road, the signalized intersection at NE Clifton Lane, and the unsignalized intersection at Old Belfair Highway, are all failing LOS standards (see also the *SR 3 Freight Corridor Transportation Discipline Report*).

Several studies conducted over the last decade have shown that traffic congestion and safety concerns will overwhelm SR 3 in the near future. The operational analysis of the project area indicates that the roadway currently operates below minimum acceptable service standards on this portion of the highway. Without the Freight Corridor, operational performance for freight and regional through traffic on the portion of existing SR 3 through Belfair will continue to decline to the point of chronic failure by 2045. If no action is taken, travel times in the project area are expected to get worse as future traffic volumes increase.

The current highway does not support regional transportation needs. This route experiences seasonal fluctuations from tourist traffic and recreational users and is the most direct and expedient alternate land route for traffic from Bremerton to Interstate 5 if SR 16 or the Tacoma Narrows Bridge becomes blocked. Southbound traffic destined for Shelton, Grays Harbor, and Olympia must pass through Belfair. As land located in the corridor continues to be developed, and regional trips continue to increase, traffic congestion through Belfair will be exacerbated. The Bremerton Economic Development (BED) Study for US 101, SR 3 and SR 16 in Mason and Kitsap Counties (WSDOT 2012a) showed the Freight Corridor project was the top priority project for the local communities and stake holders.

If the Freight Corridor project is not built, the SR 3 would be an important regional facility that will fail to provide efficient regional and local traffic mobility. A bypass would improve the roadway system around Belfair and would reduce travel time.

Improve Safety

Crash records in the study area indicate that the type and severity of crashes appears to be consistent with congested urban conditions. Rear-end and property damage only (PDO) or non-injury crashes account for the greatest number of crashes. The number of crashes tends to increase under congested conditions, but the severity of those crashes is generally lower, due to lower speeds. In the study area, between January 2018 and December 2022, 402 crashes were reported. Two were fatal crashes and eight were serious injury crashes. One serious injury crash

was at the intersection of at the Lake Flora Rd intersection (MP 28.78). The remaining two fatal crashes and seven serious injury crashes. During this time, 330 crashes occurred between the study intersections with the majority occurring between Lake Flora Road to NE Clifton Lane (42%) and between NE Clifton Lane to SR 106 (40%).

Support of Local Plans

The area is developing based on local agency comprehensive plans and zoning. However, the area lacks a completed transportation network appropriate for the community. The Bremerton Economic Development (BED) Study showed the SR 3 Freight Corridor is the top priority project for the local communities and stakeholders. The Freight Corridor has been included in the transportation elements of the Mason County and the City of Bremerton comprehensive plans.

2 Description of Alternatives

Alternative 1: No Build Alternative

Under the “No Build” alternative, the proposed project will not be constructed. This alternative may have some minor improvements during normal maintenance activities and/or small cost operational enhancements.

Alternative 2: Build Alternative (Proposed Action)

The proposed SR 3 Freight Corridor – New Alignment project Build Alternative would construct a two-lane, 6.5-mile limited access highway, as described in Section 1, above.

3 Methodology

Methods of Analysis

Wildlife (WDFW), Washington Department of Natural Resources (DNR), and the National Marine Fisheries Service (NMFS) (Appendix B) was used to determine if any state or federally listed proposed, threatened, or endangered animal species are located in the project area. Proposed impacts to the various wildlife and hydraulic features are described in this report. Impacts to vegetation types are described in the vegetation discipline report (WSDOT 2021a) and were calculated using GIS software as well as site visits.

Vegetation types and land use within the study area were classified to assess wildlife associations and evaluate impacts. Please see the vegetation discipline report for a thorough discussion of vegetation classification and area.

Fish and Wildlife Study Area

The study area for fish and wildlife was determined to be the project footprint, plus those areas extending 300 feet outside the project footprint. This provides a larger but reasonable area within which to assess wildlife habitat.

MBTA Study Area

The potential occurrence of migratory birds in the Migratory Bird Treaty Act (MBTA) study area relied on documented sightings and inferences based on existing habitats in close proximity to the project area. The MBTA study area was determined to be the project footprint, plus those areas extending 300 feet outside the project footprint. Aerial photographs and WDFW Priority Habitat and Species (PHS) data were evaluated to determine habitat types within the MBTA study area. Based on the review of existing information, habitats within the MBTA study area include streams, riparian habitat, wetlands, conifer-hardwood mixed forest and residential lands.

Existing information used to refine the overall migratory species list for the MBTA study area was based on documented and potential occurrence, and life history traits including the following:

- Breeding Birds of Washington State – Location Data and Predicted Distribution (Smith et al., 1997)
- Wildlife – Habitat Relationships in Oregon and Washington (Johnson and O’Neil, 2001)
- Peterson Field Guides: Western Birds (Peterson, 2010)
- A Guide to Bird Finding in Washington (Wahl and Paulson, 1987)
- The Audubon Society Encyclopedia of North American Birds (Terres, 1991)
- A Field Guide to Western Birds’ Nests (Harrison, 2001)
- The online Information and Planning Consultation tool (USFWS 2021)

The documented occurrence of nesting species was ascertained by reviewing Smith et al. (1997). WDFW’s online PHS data mapper was also reviewed for documented occurrences of priority

species (WDFW, 2021). Potential species occurrence was determined by listing habitat types in the MBTA study area, and then comparing these with the habitat types defined in Johnson and O’Neil (2001).

Potential direct impacts to migratory birds resulting from habitat loss, fragmentation, and disturbance from proposed construction were assessed. These impacts are categorized as construction impacts and operational impacts. The loss of habitat was quantified by overlaying the proposed alignment over a base map. Existing habitat types on the base map were identified as either developed (residential/commercial/industrial), not developed (grass fields/shrub areas/forest), or agricultural. Aerial photographs were also used to identify habitat types in the MBTA study area. Field reconnaissance was conducted to verify the aerial photograph interpretations. Wetlands and streams in the project area were identified and further evaluated through intensive field studies. These studies are documented in the Wetlands Discipline Report (WSDOT 2021b).

Biologists also reviewed WDFW PHS data for locations of bald eagle activity areas. The Bald and Golden Eagle Protection Act (16 USC 668 et seq.) protects bald and golden eagles by prohibiting, except under certain specified conditions, take (which is defined to include pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing), possession, and commerce of these species. A permit from USFWS may be required for vegetation clearing and other construction activities within 660 feet of an active eagle nest between January 1 and August 31. No bald eagle nests or communal roost sites are present within 660 feet of the study area.

Studies and Coordination

The USFWS, the WDFW PHS Program, and the Washington Natural Heritage Program maintain records of sensitive, threatened, and endangered species occurring in the state. No sensitive, threatened, or endangered animal species are indicated as occurring on the site by GIS data supplied to and available for WSDOT use and none were observed on site or transiting the site during field investigations.

4 Affected Environment

Existing Land Use

The SR 3 Freight Corridor project is primarily located in the northeast corner of Mason County with the northern terminus of the project located in the southwest corner of Kitsap County, within the city limits of Bremerton. Land use types in the study area include residential, commercial, vacant (or undeveloped), and resource lands.

Despite increasing populations in urban growth areas (UGAs), Mason County remains a predominantly rural county (Mason County 2016). State law (RCW 43.160.020) defines a rural county as having fewer than 100 people per square mile. The county includes extensive forested areas, major water bodies, and rolling to mountainous terrain. Forest lands, managed by federal, state, or private entities, account for 50 percent of the land area making up Mason County. The UGAs of Shelton, Belfair, and Allyn will serve as the primary core areas for future residential and commercial growth. Additionally, two native tribes, the Skokomish and Squaxin Island Tribes, have reservations within the boundaries of Mason County.

The SR 3 Freight Corridor project passes through a variety of land use zones and types within the 6.5-mile project study area. The study area lies primarily within a rural environment while passing through the unincorporated Belfair UGA and terminating within the Puget Sound Industrial Center - Bremerton (PSIC - B), formerly named the South Kitsap Industrial Area . Much of the area in both Mason and Kitsap County is undeveloped commercial forested land.

The southern terminus of the proposed project begins in Mason County in the vicinity of the intersection of SR 3 and SR 302. South of the Belfair UGA southern boundary, the bulk of the land within one-half mile of the proposed alignment is designated as Rural Residential 5 Acres (RR-5AC), allowing residential development of one residence per five acres. There is also land designated as Rural Residential 10 Acres (RR-10 AC), allowing one residence per ten acres, within the area to a lesser extent. Most of R-10 AC land designation is located within the vicinity of the southern terminus (vicinity of SR 3/SR 302). Immediately west of the SR 3/SR 302 intersection the land is designated as Rural Tourist, which corresponds with the land around Lake Devereaux and Girl Scout Camp St. Albans.

Located within the area of the southern terminus where the proposed alignment connects with the current SR 3 is a residential development (Belwood Estates) on 1/3-acre to 1/4-acre lots, the North Mason School District campus (121.5 acres), and a church. The Allyn UGA lies approximately 1/3 mile to the south of the project limit (Mason County 2021).

As the proposed alignment proceeds north, it crosses into the Belfair UGA and into Kitsap County. The project alignment within Kitsap County passes through land zoned for residential usage (RR-5) and through PSIC-B. Other land use designations within one-half mile of the proposed alignment includes land zoned as Rural Protection (RP – 1 dwelling per 10 acres), Industrial (IND), and Business Park (BP) (Kitsap County 2018).

General Habitat Characteristics

A detailed description of the habitat characteristics found along the proposed transportation corridor is located in the Vegetation Discipline Report (WSDOT 2021a).

Fish and Wildlife Study Area

The study area for the fish and wildlife discipline report was determined to be the project footprint, plus those areas extending 300 feet outside the project footprint. This provides a larger but reasonable area within which to assess wildlife habitat.

Wildlife Species in Study Area

No habitats that are potentially used by listed, threatened, and endangered wildlife species, as primary resources, will be affected by the proposed project. Operation of the project will increase disturbance levels along the corridor, especially in areas where development currently does not exist.

Although no reports of such exist, there is a possibility that marbled murrelets (*Brachyramphus marmoratus*) may fly over the proposed project area while transiting between Sinclair Inlet to the north and Hood Canal to the south. The fish and wildlife study area contains numerous wetlands, some of which may contain perennial water in amounts and quality necessary for lentic-breeding amphibian reproduction.

There is only one stream that occurs within the fish and wildlife study area. The stream, located northeast of the Alta neighborhood near the southern end of the study area, is an extreme headwater of an unnamed tributary to the North Bay of Case Inlet (WSDOT 2020). The stream originates from wetlands within the study area, flows into a small ravine, and eventually drains to the unnamed tributary to Case Inlet. The lower reaches of the unnamed tributary to Case Inlet intersects SR 302 at milepost (MP) 0.9, outside of the project limits. At the SR 302 crossing the unnamed stream to Case Inlet, is documented as fish-bearing and the culvert under SR 302 (Site Number 991599) is considered a total fish passage barrier for upstream migration based on a water surface elevation drop that is greater than 3 feet (WDFW 2021b). The delineated stream with the study area is approximately one mile upstream of this total fish barrier. The stream was surveyed by project biologists and is considered to be non-fish bearing within the study area.

Although the headwaters of the unnamed tributary are considered to be non-fish bearing, the lower extremes are fish-bearing but outside the project limits. Due to the barrier conditions of the crossing on SR 302 (MP 0.9) only resident cutthroat trout (*Oncorhynchus clarki*) may be present in the stream upstream of the SR 302 crossing. In the future, if the SR 302 crossing is repaired to provide for fish passage, habitat immediately upstream of the SR 302 crossing (but outside the project limits) may be suitable for coho salmon (*O. kisutch*), chum salmon (*O. keta*), and coastal cutthroat trout (WDFW 2021b).

Presence of Species in Study Area

Numerous terrestrial wildlife species are likely to be found inhabiting the study area including: rodents (arboreal and terrestrial), insectivores (shrews, moles and shrew-moles), opossum (*Didelphis marsupialis*), raccoons (*Procyon lotor*), black-tailed deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), coyotes (*Canis latrans*), birds and amphibians (terrestrial and pond breeders). Field visits indicated current presence of arboreal and terrestrial rodents, insectivores, coyote, opossum, black-tailed deer and black bear.

Special-Status Fish and Wildlife Species in Study Area

The study area has no known occurrences of animal species listed as threatened or endangered under the Endangered Species Act (ESA) or that are candidates for such a listing. Nor are there any wildlife species of federal concern or species included in the WDFW PHS database (WDFW 2021a).

There are no special-status fish species directly within the project limits. The nearest body of water that provides suitable habitat for special-status fish species is at the confluence of the unnamed tributary and Case Inlet. Case Inlet provides suitable habitat for ESA-listed Puget Sound Chinook salmon (*O. tshawytscha*), Puget Sound steelhead (*O. mykiss*), and potentially bull trout (*Salvelinus confluentus*). But again, Case Inlet is outside of the project limits.

In September 2012, WSDOT submitted a biological assessment to USFWS and NMFS, initiating consultation in accordance with Section 7(a)(2) of the ESA. On February 28, 2013, USFWS issued a letter of concurrence, concluding that the proposed project was not likely to adversely affect bull trout or marbled murrelets (USFWS Reference No. 01FWFW00-2013-I-0105). On April 30, 2013, NMFS also issued a letter of concurrence (NMFS Tracking No. NWR-2012-4161), concluding that the proposed project was not likely to adversely affect Puget Sound steelhead, Puget Sound Chinook salmon, Hood Canal summer-run chum salmon. NMFS also concurred with determinations that the proposed project was not likely to adversely affect designated critical habitat for Puget Sound Chinook salmon or Hood Canal summer-run chum salmon, and that it would have no adverse effects on essential fish habitat for species protected under the Magnuson-Stevens Act. As documented in the attached informational update, WSDOT has conducted new reviews to ensure continued compliance with the requirements of ESA Section 7 (see Attachment A).

Habitat Connectivity Assessment

The proposed highway segment is fully within the connected habitat networks of two focal species (black-tailed deer and western toad) that were included in the Washington Connected Landscapes Project: Statewide Analysis (Washington Habitat Connectivity Working Group 2010). The area is important to wildlife movements because of the narrow terrestrial connection between the north end of North Bay and the eastern terminus of Hood Canal. For wildlife that do not move across marine waters, this narrow terrestrial passage is all that connects the vast land area of the Kitsap and Tahuya Peninsulas with the rest of western Washington. The importance of a permeable highway in

this corridor is moderated by the predominantly private ownership and the ongoing plans for extensive residential development, which will undoubtedly compromise wildlife habitat values.

Traffic volumes on SR 3, in the adjacent vicinity of the project, through the town of Belfair, are relatively high. Eventually, this new highway is assumed to support traffic volumes similar to the portion that currently passes through Belfair. The average annual daily traffic volume on SR 300 through Belfair is approximately 7,100 vehicles. The average annual daily traffic volume on SR 3 near Belfair is approximately 16,000 to 20,000 vehicles. At this level, wildlife crossings at grade should be discouraged, with an emphasis on providing safe passage at bridges and culverts. The statewide Connected Landscapes analysis suggests that conserving terrestrial connections to the Kitsap Peninsula could be most efficiently accomplished by providing permeable conditions at the north end of the project, largely the portion of the project within Kitsap County. Limited extent of public land area occurs near the permeability emphasis area and may be important for conserving a habitat corridor. An intermittent stream crosses the alignment very close to the Kitsap/Mason County border with the permeability emphasis area, a good location to consider for an over-sized culvert.

The extent to which wildlife permeability features are designed into this highway should be based on the degree to which habitat conditions adjacent to the highway can be conserved. Partnerships with non-profit conservation organizations, local governments, land trusts, and others may serve to identify and protect a habitat network in this important area.

The following are recommended highway features that should be considered for inclusion in highway design with an emphasis on the area identified as the permeability emphasis area:

- Install one or more over-sized box culverts, where hydrology dictates the need for a culvert. Large box culverts with a minimum of 8 ft vertical clearance and at least 20 ft of horizontal opening are recommended to accommodate a wide range of wildlife including deer and bear.
- Smaller culverts should be oversized to provide additional safe passage opportunities for small animals that prefer or require a dry land path.
- Consider making road margins effective barriers to small animals attempting to cross the highway at grade. The most effective barrier to small animals would be a vertical face at least six inches high with an overhang at the top.

5 Environmental Consequences

Effects During Construction

Direct Effects

Potential direct effects of constructing the project range from wildlife displacement, loss of nesting and foraging habitat as well as loss of thermal cover and predator avoidance cover. No direct effects to fish species are expected during construction because no fish bearing streams occur within project limits and all relevant best management practices (BMPs) will be used to ensure no sediment containing runoff will enter fish bearing waters of the state.

Indirect Effects

Indirect effects are reasonably foreseeable effects of an action that occur later in time or are further removed in distance from the direct effects of the proposal. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (40 Code of Federal Regulations [CFR] 1508.8).

Indirect effects result from one project but, unlike direct effects, typically involve a chain of cause-and-effect relationships that can take time to develop and that can occur at a distance from the project site. This makes indirect effects difficult to accurately predict and usually requires a qualitative estimate more general than predictions of direct effects.

Impact Minimization Measures

The MBTA specifies that nesting migratory birds must not be directly impacted from project-related activities. Direct impacts could result if nesting migratory birds are present in the project area during construction.

Mitigation

WSDOT will use all practicable means to minimize impacts to habitats. Based on size and scope of the project, there will be some unavoidable loss of plants and animals due to site preparation, road construction and operation. Measures can be incorporated into the design of the proposal related to landscaping, soil retention, site rehabilitation and habitat restoration that will help reduce the impacts to wildlife and habitat.

Preservation of vegetation will decrease the impacts of project construction. Existing native plants and trees should be preserved wherever possible. Trees and shrubs adjacent to the alignment should be preserved as visual buffers. Vegetation buffers will also offer wildlife protection from noise and human activity on the site. Landscaping with native species will mitigate habitat losses in the alignment right of way.

Effects During Operation

Direct Effects

Under the Build Alternative, wildlife will be impacted by increased exposure to vehicular traffic and loss of habitat. Wildlife may be struck by vehicles on the SR 3 Freight Corridor new alignment. Black-tailed deer and black bear are highly vagile species which occur in the area of the proposed project and are likely to cross the proposed right of way. Direct effects to fish species during operation of the SR 3 Freight Corridor are unlikely because no fish-bearing streams occur within project limits and all relevant BMPs will be used to ensure no sediment containing runoff will enter fish-bearing waters of the state.

Impacts associated with operation are those that occur after project completion. This includes day-to-day commuter use and maintenance activities. Operational impacts will be on-going following project completion. Therefore, these impacts are considered long-term.

Construction of the new alignment will result in mortality of individual bird and terrestrial wildlife species as well as loss and fragmentation of existing habitat. Increased traffic volumes traveling at greater speeds than under the No Build Alternative will result from the operation of the project. Automobiles occasionally strike raptors such as owls and red-tailed hawks that hunt along road rights-of-way, especially freeways where vehicle speeds are highest. Vehicles also occasionally strike waterfowl and smaller perching bird species when suitable habitat occurs along roadways. Juvenile birds are also susceptible to collision with vehicles immediately after fledging due to a reduced capacity for flight. Terrestrial wildlife species crossing the new alignment either during dispersal or daily foraging will also be exposed to an increased probability of vehicle collision. As stated previously in the habitat connectivity assessment section of this report, wildlife crossing structures should be part of project design.

Modification and fragmentation of habitat could alter species composition in the study area. Species that are better adapted to urbanized landscapes such as crows (*Corvus brachyrhynchos*), opossum, raccoons, rock doves (*Columba livia*), starlings (*Sturnus vulgaris*), and house finches (*Haemorhous mexicanus*) will become increasingly abundant.

Indirect Effects

Impacts to habitat in the study area may cause the displacement of wildlife into neighboring habitats. Depending on the ability of the neighboring habitat to support additional wildlife, this displacement may lead to crowding wildlife and a decrease in habitat quality. The addition of traffic lanes and increase in the volume of traffic may make the SR 3 Freight Corridor new alignment difficult for animals to cross. This may lead to a long-term increase in wildlife mortality from vehicle collisions in the study area.

Mitigation

WSDOT will use all practicable means to minimize impacts to habitats. Based on size and scope of the project, there will be some unavoidable loss of plants and animals due to site preparation, road construction and operation. Measures can be incorporated into the design of the proposal

related to landscaping, soil retention, site rehabilitation and habitat restoration that will help reduce the impacts to wildlife and habitat.

Preservation of vegetation will decrease the impacts of project construction and existing native plants and trees should be preserved wherever possible. Trees and shrubs adjacent to the alignment should be preserved as visual buffers. Vegetation buffers will also offer wildlife protection from noise and human activity on the site. Landscaping with native species will mitigate habitat losses in the alignment right of way.

Cumulative Effects

Cumulative effects include past, present, or other reasonably foreseeable funded projects within the study area and funded or unfunded projects adjacent to the study area that together with the roadway improvements may have a cumulative effect on the environment.

The creation of a new transportation facility with the project limits may be a potential catalyst for large-scale redevelopment. Current and future zoning densities will likely result in some conversion of currently vegetated land types. The proposed Build Alternative may contribute to cumulative effects on existing vegetation types in the project area.

6 Unavoidable Adverse Effects

If the project is constructed, unavoidable adverse effects including but not limited to increased wildlife mortality, habitat loss/fragmentation and increased pollution generating impervious surfaces will occur.

7 References

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Attachment A

Informational Update for Endangered Species Act Consultation