### **APPENDIX A**

# **PEL Questionnaire**



# DOT&PF PLANNING AND ENVIRONMENTAL LINKAGES QUESTIONNAIRE EGAN DRIVE AND YANDUKIN DRIVE INTERSECTION IMPROVEMENTS

(AUGUST 2021)

#### 1. Background

#### A. What is the name of the PEL document and other identifying project information?

Planning and Environmental Linkages (PEL) Study – Egan Drive and Yandukin Drive Intersection Improvements

Project #: SFHWY00079/0003208

## B. Provide a brief chronology of the planning activities (PEL study), including the year(s) the studies were conducted.

A brief chronology of the planning activities in the PEL study process includes:

- Development of Purpose & Need, Fall 2019 to Spring 2020
- Existing Conditions/Data Collection, Summer 2020
- Alternatives Development and Analysis, Spring and Summer 2020
- Environmental Overview and Traffic Analysis, Fall 2020
- PEL Study Report, August 2021

# C. Provide a description of the existing transportation corridor, including project limits, modes, number of lanes, shoulder, access control, and surrounding environment (urban vs. rural, residential vs. commercial, etc.)

Egan Drive is a four-lane divided, controlled-access, principal arterial roadway running generally north-south with full access control between major intersections and a mix of atgrade intersections and grade-separated interchanges. It serves both long distance and local trips, carrying approximately 30,000 vehicles per day (vpd). As part of the National Highway System, Egan Drive connects Downtown Juneau with the Mendenhall Valley and Juneau International Airport, as well as with the University of Alaska Southeast and the Auke Bay Ferry Terminal.

Yandukin Drive is a major collector roadway in the Mendenhall Valley west of Egan Drive, carrying approximately 2,500 vpd to Juneau International Airport as well as other commercial and residential establishments.

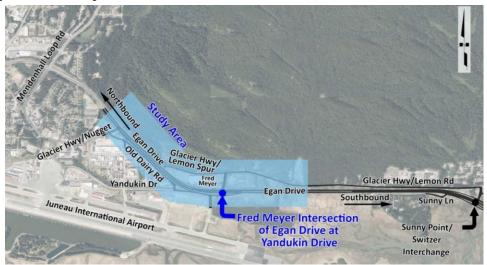
Lemon Road/Glacier Highway is a minor arterial. Volumes on this leg have varied from 7,500 to 12,500 vpd between 2012 and 2015. Lemon Road/Glacier Highway is parallel to

DOT&PF Planning and Environmental Linkages Questionnaire: Egan-Yandukin Intersection Improvements – August 2021

Egan Drive between the Sunny Point Interchange and Yandukin Drive, and carries approximately 4,500 vpd.

All inbound and outbound traffic must pass through the intersection of Egan Drive at Yandukin Drive. There are no alternate routes to this intersection. In addition to the intersection of Egan Drive at Yandukin Drive, the study area also includes four nearby intersections. The study area is shown in Figure 1.

Figure 1. Study Area



**Surrounding Land Uses.** Within the project area, existing developments include a variety of land uses. Figure 2 presents the land uses in the area. Traffic growth is likely because of the undeveloped lands which are zoned for high-density residential properties within the project area.



Source: City & Borough of Juneau GIS files (obtained November 2017)

#### D. Who is the sponsor of the PEL study?

Alaska Department of Transportation and Public Facilities (DOT&PF) Southcoast Region

# E. Who is included on the study team (Name and title of agency representatives, consultants, etc.)?

See Table 1.

Table 1. Project Roster

First Name	Last Name	Role	Agency
James (Jim)	Brown	Project Manager / Design Group Chief	DOT&PF
Marie	Heidemann	Regional Planning Director	DOT&PF
Joanne	Schmidt	Regional Planner	DOT&PF
Benjamin	Storey	Regional Environmental Manager	DOT&PF
David	Epstein	Regional Traffic and Safety Engineer	DOT&PF
Jonathan	Weaver	Engineer	DOT&PF
Sam	Dapcevich	Public Information Officer	DOT&PF
Ryan	Bare	Environmental Analyst	DOT&PF
Joseph	Galgano	Environmental Analyst	DOT&PF
Christy	Gentemann	Environmental Analyst	DOT&PF
Emily	Haynes	PEL Process Review	DOT&PF SEO
Jill	Taylor	Statewide NEPA Program Manager	DOT&PF SEO
Mark	Dalton	Contract Manager / QC Manager	HDR
Taylor	Horne	Consultant Project Manager	HDR
Josie	Wilson	Public Involvement Lead	HDR
Gina	McAfee	PEL Process Lead	HDR
Aurah	Landau	Public Involvement	HDR
Laurie	Cummings	Transportation Planner	HDR
Linda	Smith	Environmental Analyst	HDR
Elizabeth	Grover	Technical Editor	HDR
Robyn	Syren	Accounting	HDR
Jeanne	Bowie	Traffic Engineering Lead	Kinney Engineering
Michael	Horntvedt	Senior Traffic Advisor	Parametrix

# F. Are there recent, current, or near-future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?

A series of previous planning efforts have been targeted at the need for improvements in this study area. These include:

• Juneau-Egan Drive and Yandukin Intersection Improvement Traffic Analysis and Alternative Concepts Report (Kinney Engineering, October 2018): Five possible improvements to the Egan Drive and Yandukin Drive (E-Y) intersection were

- developed. Analysis of existing safety problems was conducted. A PEL study was recommended. This study was updated in fall 2019 with more recent crash data as part of this PEL study (see Chapter 3).
- Lemon Creek Area Plan (2017): This plan identified improvements at the Fred
  Meyer intersection of Egan Drive at Glacier Highway/Lemon Road and for the extension
  of Glacier Highway/Lemon Spur to the Egan Drive at Glacier Highway/Nugget
  intersection.
- Comprehensive Plan of the City & Borough of Juneau (CBJ 2013): This plan
  provided guidance for the future development and redevelopment of the City and
  Borough of Juneau (CBJ). It lists improvements to sidewalks and bicycle facilities,
  construction of an extension of Glacier Highway from its current dead end north of Fred
  Meyer to the intersection of Glacier Highway and Egan Drive at McDonalds and the
  Nugget Mall. It also includes construction of a coastal trail along Egan Drive or along the
  north side of Egan Drive, connecting Sunny Point to neighborhoods to the east and
  west.
- Juneau Non-Motorized Transportation Plan (CBJ 2009): This plan recommends a crosswalk on Glacier Highway/Lemon Road, a bicycle lane, and a coastal trail.
- West Egan Drive Corridor Study (DOT&PF 2003): This study found capacity and level of service (LOS) issues, issues with system linkages, airport access, safety, and pedestrian and bicycle facilities. The study recommended a full interchange located to the east of the existing intersection.
- Juneau Area-Wide Transportation Plan (CBJ 2001): This plan developed a citywide transportation system, including a bicycle and pedestrian network, that promotes
  safe, sustainable, and healthy travel options. In the study area, recommendations
  included sidewalk extensions, preserving the median for possible mass transit,
  extending Glacier Highway/Lemon Spur to the Glacier Highway/Nugget intersection, and
  widening Glacier Highway to three lanes.

#### 2. Methodology Used

#### A. What was the scope of the PEL Study and the reason for completing it?

The scope for this PEL study includes development of purpose and need, stakeholder outreach, alternatives development and screening, limited environmental resource mapping and issues identification, development of consensus on the project and screening approach, and documentation to be compliant with future National Environmental Policy Act (NEPA) and other environmental review processes such as Section 404 permitting, Section 106 of the National Historic Preservation Act, and Section 4(f) of the U.S. Department of Transportation Act analysis. The primary reason for completing this study is to expedite future NEPA and other environmental review processes.

#### B. Did you use NEPA-like language? Why or why not?

Yes. Many NEPA terms were used for consistency between phases, and to avoid issues in anticipated upcoming phases. The few exceptions to this are noted below.

### C. What were the actual terms used and how did you define them? (Provide examples or list)

NEPA-like terms that were used throughout the study include:

- **Corridor Improvement Goals:** This term was used at the initial public meeting in lieu of purpose and need because it was perceived to be more action oriented.
- **Purpose and Need:** The purpose and need statement (used at later public meetings and with agencies) describes the transportation needs that exist and the problems to be addressed. It serves as the basis for the identification of reasonable alternatives, and overall project guidance.
- Recommended Alternative: This term was used instead of "preferred alternative" to
  differentiate between the PEL study and a future NEPA process. This would allow for the
  possibility of bringing back certain "not recommended" alternatives, or elements of those
  alternatives, if conditions change or more analysis of them is needed in a NEPA or other
  environmental review process.
- **Screening Measures:** This term was used to describe both qualitative assessments and quantitative data to compare impacts and performance of each alternative.
- **Logical Termini:** The termini identified for the study are the rational starting and stopping points for evaluating transportation improvements through this project.
- **No Build Alternative:** The No Build alternative includes both existing and reasonably foreseeable projects near and within the study area.
- Public and Agency Involvement: Public and resource agency involvement provided opportunities for interested parties to participate in and provide feedback to the PEL study. The intent was to collect a broad range of information, ideas, and opinions from the public and agencies.
- **Environmental Overview:** This chapter of the PEL study describes existing environmental conditions for various resources to establish baseline conditions and discusses issues for these resources anticipated from study alternatives.
- **Mitigation:** Mitigation measures seek to avoid, minimize, and mitigate adverse environmental effects.
- **Fatal Flaws:** This term is used for costs or impacts that prohibit an alternative from being built.
- **Infeasible**: This term is used if the alternative is determined to be physically incapable of being built or has other technical issues that are so challenging that they result in unusually difficult construction requirements, ongoing maintenance difficulties, or other unacceptable environmental or social impacts.
- Reasonable/Unreasonable: The Council on Environmental Quality (CEQ) regulations
  do not define a "reasonable" alternative. The CEQ's guidance states that "[i]n
  determining the scope of alternatives to be considered, the emphasis is on what is
  'reasonable' rather than on whether the proponent or applicant likes or is itself capable
  of carrying out a particular alternative. Reasonable alternatives include those that are
  practical or feasible from the technical and economic standpoint and using common

sense, rather than simply desirable from the standpoint of the applicant" (CEQ 1986: Question 2a). Alternatives can be eliminated in the screening process based on any factor that is relevant to reasonableness. An alternative that does not meet the purpose and need is, by definition, unreasonable and can therefore be eliminated in the screening process. An alternative that does meet the purpose and need can still be rejected as unreasonable based on other factors, including environmental impacts, engineering, and cost. For example, if two alternatives both meet the purpose and need to a similar degree but one is much higher impact and more costly, those factors can be cited as a basis for rejecting the higher-impact alternative as unreasonable (AASHTO 2016).

#### D. How do you see these terms being used in NEPA documents?

Except for "Corridor Improvement Goals" and "Recommended Alternative," these terms will be used in the future NEPA process for the corridor.

# E. What were the key steps and coordination points in the PEL decision-making process? Who were the decision makers, and who else participated in those key steps?

A project team composed of DOT&PF staff from the engineering, environmental, and planning disciplines as well as the consultant team generally met every week for 16 months. The project team provided oversight to various aspects of the project, and specifically reviewed and provided concurrence for these milestones and deliverables, as listed below. In addition, the public, a Community Focus Group (CFG), and Agency Workgroup participated in the key steps:

- Determining a reason for the PEL study and desired outcome (August 2019)
- Development of purpose and need (November 2019 to June 2020)
- Development of alternatives (November 2019 to June 2020)
- Screening of alternatives, and identification of environmental impacts and potential mitigation (July 2020 to February 2021)
- Finalization of PEL study (March to August 2021)

The decision makers were the DOT&PF staff listed in Table 1.

#### F. How should the PEL information below be presented in NEPA?

The PEL study will be presented as the early planning stages for a future NEPA process(es). It is likely that purpose and need, planning analyses, alternatives developed and evaluated, and environmental resource data collected during the PEL study would be described in the NEPA process and document, and incorporated by reference where appropriate. Information from the public and agency involvement program will also be used.

The NEPA scoping process should adhere to the requirements of 23 United States Code (USC) 168 and make sure the planning documents from the PEL study are made available

for public review, provide notice of the intent of the DOT&PF to adopt or incorporate by reference the planning products listed above, and consider any comments made.

#### 3. Agency Coordination

A. Provide a synopsis of coordination with federal, tribal, state, and local environmental, regulatory, and resource agencies. Describe their level of participation and how you coordinated with them.

To help ensure project stakeholders were represented, two advisory groups were established: the Community Focus Group (CFG) and Agency Workgroup. As part of the process, the project team complied with relevant regulations (including 23 CFR 450) and guidance, which indicated that environmental, regulatory, and resource agencies and tribes should be included in the PEL study. Guidance also indicated that the process should be conducted in coordination with federal, state, and tribal land management, wildlife, and regulatory agencies.

The project team focused stakeholder (community, agency, and general public) outreach activities on four sets of planning products and decisions. At each of these meetings, information was shared with the groups, and they were provided opportunities and encouraged to make comments during the meeting and after the meeting during a predetermined comment period (see Table 2).

Table 2. Public and Agency Meetings and Activities

Focus	Meetings	Dates
Purpose and need statement	<ul> <li>Agency Workgroup and Community Focus Group meetings #1</li> </ul>	• November 5, 2019
	<ul><li>Public Open House #1</li></ul>	<ul> <li>November 19, 2019</li> </ul>
Range of alternatives, alternatives screening process, and evaluation criteria	<ul> <li>Agency Workgroup and Community Focus Group meetings #2</li> </ul>	<ul> <li>June 30, 2020 and July 1, 2020</li> </ul>
	<ul><li>Public Open House #2</li></ul>	<ul> <li>October 14, 2020</li> </ul>
Level 1 Screening results and Level 2 Screening criteria	<ul> <li>Agency Workgroup and Community Focus Group meetings #3</li> </ul>	<ul> <li>August 20, 2020 and August 21, 2020</li> </ul>
	<ul><li>Public Open House #2</li></ul>	<ul> <li>October 14, 2020</li> </ul>
Level 2 Screening results and recommended alternative	<ul> <li>Agency Workgroup and Community Focus Group meetings #4</li> </ul>	<ul> <li>January 6, 2021 and January 7, 2021</li> </ul>
Public Review of Draft PEL Study Report	<ul> <li>Draft PEL Study posted online for comment</li> </ul>	<ul> <li>May 17, 2021, through June 16, 2021</li> </ul>

#### **Community Focus Group (CFG)**

The CFG was composed of representatives from tribal governments, local government, law enforcement, local businesses, transportation agencies, and advocacy groups. According to PEL guidance, the CFG is not required to concur with PEL results or outcomes, and does not have permitting or approval authority. However, the project team desired to have general agreement on each major milestone in the PEL study and worked toward consensus with CFG members.

Organizations represented in the CFG include:

- Alaska State Troopers
- Bicknell, Inc.
- Central Council of Tlingit and Haida Indian Tribes of Alaska
- CBJ Assembly
- Capital City Fire/Rescue
- Capital Transit
- CBJ Community Development Department
- Juneau International Airport
- Juneau Police Department
- Fred Meyer
- Greater Juneau Chamber of Commerce
- Juneau Christian Center
- Juneau Freewheelers

#### Agency Workgroup

An Agency Workgroup was convened, consisting of nine state, federal, and local agencies and divisions/departments that have permitting or approval responsibility for transportation projects. Concurrence or approval from jurisdictional agencies on planning products and decisions developed during the PEL study is not required. However, PEL statutes and regulations allow certain planning products and decisions to be used during any subsequent NEPA processes for projects related to the PEL study. These planning products and decisions must be developed in consultation with appropriate federal and state resource agencies and tribes, and notice that the information is available for review must be provided to those agencies, tribes, and the public during the subsequent environmental processes. Therefore, during this PEL study, federal and state resource agencies and tribes were consulted during each step of the PEL study and were provided multiple opportunities to comment on the planning products and decisions that were developed. Agencies represented in the Agency Workgroup include:

- Alaska Department of Environmental Conservation (ADEC) Division of Air Quality
- ADEC Division of Spill Prevention and Response Contaminated Sites Program
- ADEC Division of Water
- Alaska Department of Fish and Game (ADF&G) Division of Habitat

DOT&PF Planning and Environmental Linkages Questionnaire: Egan-Yandukin Intersection Improvements – August 2021

- Alaska Department of Natural Resources (ADNR) Office of History and Archaeology
- ADNR Division of Mining, Land, and Water
- CBJ Community Development Department
- U.S. Army Corps of Engineers (USACE)
- U.S. Forest Service (USFS)

# B. What transportation agencies (e.g., for adjacent jurisdictions) did you coordinate with or were involved in the PEL study?

Transportation agencies who were involved in the study included Juneau International Airport, Capital Transit, and CBJ Planning.

#### C. What steps will need to be taken with each agency during NEPA scoping?

Agency coordination that will need to be undertaken during the subsequent NEPA process is described in Table 3.

**Table 3. Agency Coordination** 

Resource	Agency	Coordination Reasoning
Floodplains	CBJ	Floodplain permitting
Wetlands and other Waters of the United States	USACE, ADEC	Waters of the United States jurisdictional determinations and Section 404/10 permitting
Threatened and Endangered species and Other Wildlife	U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), ADF&G	For concurrence on habitat and impacts, such as bald eagle permitting
Fish	ADF&G	Fish habitat permitting
Cultural/Historic Resources	State Historic Preservation Officer (SHPO)	Concurrence on eligibility and effects to cultural resources
Hazardous Materials	ADEC	Contaminated sites presence and closure plans
Parks and Recreational Resources	DOT&PF SEO, Official with Jurisdiction (property owner/manager)	Confirm applicability, determine impacts and mitigation and finalize Section 4(f) and/or 6(f)
Pedestrian and Bicycle, Traffic and Transit	CBJ	Local concurrence
Noise	CBJ	Review of noise study
Air Quality	ADEC	Air quality conformity determination
Water Quality	ADEC	Stormwater Pollution Prevention Plan (SWPPP) compliance
Land Use	CBJ USFS	Local concurrence Public Land Order modification, right-of-way (ROW) acquisition for Glacier-Lemon Road Extension component

#### 4. Public Coordination

#### A. Provide a synopsis of your coordination efforts with the public and stakeholders.

#### Public Open House #1

On November 19, 2019, the project team hosted a Public Open House from 4:00 to 7:00 PM at the Nugget Mall in Juneau, Alaska. The purpose of this event was to provide information on the project, solicit comments on the draft purpose and need statement, and foster positive community relations.

The event hosted 118 attendees and provided them with an opportunity to meet the project team. Overall, the attendees provided ample feedback on a variety of topics. Most of the attendees were local residents seeking to learn more about the project and share their comments on potential improvements. Representatives from the CBJ, Alaska State Legislature, and other State of Alaska departments/divisions were in attendance.

For additional information about this meeting, please see Appendix M.

#### Online Open House #1

On November 20, 2019, an Online Open House was published for the public. The purpose of this event was to provide an opportunity for the public to view information and materials that were presented at the Public Open House on November 19, 2019. This allowed individuals who were not able to attend Public Open House #1 to learn about the project and submit comments. The Online Open House hosted 168 visitors.

As a result of the public and agency participation activities, the project team received a total of 133 comments from 65 commentators during the comment period, which lasted from November 19 to December 20, 2019.

Public engagement for this PEL study is primarily generated by concerns about intersection safety. Thus, safety is assumed to be a central issue for most commenters even if safety is not directly mentioned in comments.

#### Virtual Public Meeting / Public Open House #2

On October 14, 2020, the project team hosted a Virtual Public Meeting from 5:30 to 7:30 PM, accessible via the project website (http://dot.alaska.gov/eganyandukin) and telephone. The purpose of this meeting was to provide information on the project; solicit comments on the draft range of alternatives, draft Level 1 and Level 2 Screening criteria and processes, and draft Level 1 Screening results; and foster positive public relations.

A 37-minute prerecorded presentation was played at the virtual public meeting; the transcript of this presentation is included in Appendix R. Topics covered included: project timeline, recent work, process for developing and draft criteria for evaluating alternatives for improving the E-Y intersection, draft range of alternatives, and draft Level 1 Screening results.

DOT&PF Planning and Environmental Linkages Questionnaire: Egan-Yandukin Intersection Improvements – August 2021

The event hosted 182 viewers and provided them with an opportunity to submit comments and ask questions of the project team for two hours after the prerecorded presentation. Questions could be submitted via a website form, telephone, email, and text message. A summary of the questions submitted during the event is included as Appendix R. Overall, the attendees asked questions and provided feedback on a variety of topics.

#### Online Open House #2

On October 14, 2020, Online Open House #2 was published online via an ESRI StoryMap website. The purpose of this event was to provide the public and other stakeholders an opportunity to view information and materials presented during the Virtual Public Meeting/Public Open House #2. This allowed individuals who were not able to attend the Virtual Public Meeting/Public Open House #2 to learn about the project and submit comments.

The Online Open House hosted 725 views from October 14 through November 12, 2020. As a result of the public and agency participation activities, the project team received a total of 62 comments from 30 commenters during the comment period.

#### Online Public Comment on Draft PEL Study

A draft PEL Study Report was posted on the DOT&PF project website for public comment from May 17, 2021, through June 16, 2021. Comments were accepted via email, mail, and phone. A public notice of the draft PEL Study Report and request for comments was published in the Alaska Online Public Notice system on May 17, 2021, and in the *Juneau Empire* newspaper on May 18 and 25, 2021, and online continuously from May 18, 2021, through June 16, 2021.

#### **Community Focus Group**

As described in the response to Question 3.A, four CFG meetings were held that coincided with Agency Workgroup meetings. The CFG members were presented updates on the PEL study progress and given opportunity to comment.

#### **Advertising and Media Coverage**

Prior to each of the Open House meetings, the project team placed notices in the *Juneau Empire*, mailed postcards to project area residents and businesses, placed fliers in public areas, and placed meeting announcements on the DOT&PF Facebook page. Prior to the second Open House, advertisements were placed on Capital Transit busses. A notice was placed in the paper and online editions of the *Juneau Empire* newspaper for the public comment period for the draft PEL Study Report.

Several articles were published in the *Juneau Empire* and online news sources regarding the project. Local radio stations aired stories about the project and interviews with project team members.

#### 5. Corridor Vision/Purpose and Need

#### A. What was the scope of the PEL study and the reason for doing it?

As defined in the 2016–2019 Statewide Transportation Improvement Plan, the scope of this PEL study was "to define the Purpose and Need for short and long-term improvements and evaluate improvement alternatives with respect to Purpose and Need, and provide recommendations." The primary reason for conducting the PEL study is to expedite future environmental review NEPA processes.

#### B. Provide the corridor vision, objectives, or purpose and need statement.

The approved purpose and need statement for the E-Y Intersection PEL Study is:

The purpose of the Egan Drive and Yandukin Drive (E-Y) Intersection Planning and Environmental Linkages (PEL) Study is to identify ways to improve transportation safety for all users. The secondary purposes are to identify ways to improve mobility and route diversity in the transportation grid, improve access and mobility for pedestrians and bicyclists, and maintain traffic capacity and flow through the E-Y intersection and the surrounding area.

Transportation improvements will address the following needs:

**Safety:** The traveling public has expressed concerns regarding intersection safety. Crash frequency at this intersection is similar to the statewide average for similar intersections. Data show that out of a total of 86 crashes between 2005 and 2017, 7 involved major injuries. While there have been no fatalities at the intersection, nearly 48 percent of all crashes involved some sort of injury.

Alternate route in the event of crashes: Motorists traveling between the Mendenhall Valley and downtown are limited to using a single roadway, Egan Drive, for travel. Juneau businesses rely on the intersection as a vital component of the connection between downtown, Juneau International Airport, Mendenhall Valley, and points further out the road. When an accident occurs on Egan Drive, the lack of an alternate route directly affects travel time reliability, particularly during peak travel times. The lack of an alternate route results in area-wide congestion and traffic delays when collisions occur and increases overall perception of the crash rate and severity at the intersection.

**Non-motorized access:** The nearest controlled crossing of Egan Drive for pedestrians and bicyclists is 3/4 mile north from the E-Y intersection. Bicyclists and pedestrians unwilling to follow the lengthy, circuitous path often cross Egan Drive at Yandukin Drive, which is illegal and unsafe.

Potential improvements to the E-Y intersection should meet these additional community goals:

- Provide improvements that are consistent with approved land use plans and ordinances
- Consider designs that maintain or improve access to and visibility of businesses

- Transportation improvements should support opportunities for economic development and support planned future land uses
- Seek to minimize increases in vehicle delay, especially during the peak morning and evening commuting periods, to maintain the high mobility function of the corridor

### C. What steps will need to be taken during the NEPA process to make this a project-level purpose and need statement?

To confirm that the purpose and need statement is appropriate at the project level, the NEPA process will begin with a scoping exercise to confirm logical termini, study area, and project goals. If any of those discussions suggest that the purpose and need should be modified, it can be changed at that time. Similarly, data used to inform the PEL purpose and need, such as traffic and safety data, will be reviewed to determine if any changes have occurred. Also, DOT&PF may choose to implement the recommended alternative in several steps by constructing certain components as separate projects with independent utility and logical termini. If this is the case, then the purpose and need statement for each of these projects will be different from the PEL study's purpose and need statement, but will likely be composed of the PEL study purpose and need statement.

# 6. Range of Alternatives Considered, Screening Criteria, and Screening Process

### A. What types of alternatives were looked at? (Provide a one or two sentence summary and reference document.)

Alternatives were developed that would reduce crash frequency and severity (operational improvements, grade separations, additional through lanes, additional turn lanes, better signage and lighting for the intersection). A secondary focus of the alternatives developed is to provide system resiliency (providing a detour or secondary route around the intersection in the case of a road closure). In addition, alternatives were explored that improve multimodal uses and safety in the area.

See Appendix F *Range of Alternatives White Paper* for a full list of the alternatives that were examined for this PEL study.

#### B. How did you select the screening criteria and screening process?

The interdisciplinary project team reviewed possible screening criteria and chose ones that would provide information relative to responsiveness to purpose and need (safety, transit, operational impacts, pedestrian and bicyclist access) and other factors relative to overall feasibility and impacts, including community acceptability/stakeholder impacts and environmental considerations. Screening criteria specific to regulatory requirements were used as appropriate, such as impacts to Section 4(f) protected lands. Input from stakeholders were used in selecting the screening criteria.

# C. For alternative(s) that were screened out, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.)

Refer to Chapter 3 Alternatives Considered and Screening Process for more information on the alternatives screening process.

Table 4 summarizes the alternatives eliminated from consideration as the result of the Level 1 Screening process. Table 5 summarizes the alternatives and variants eliminated from consideration as the result of the Level 2 Screening process.

Table 4. Alternatives Eliminated in Level 1 Screening

Table 4. Alternatives Eliminated in Level 1 Screening		
Alternative	Reason for Elimination	
Southbound Left Closure at E-Y Intersection and	Unacceptable wetland and ROW impacts	
Two-way Frontage Road to Glacier-Nugget	Scored lower than other alternatives	
	Determined unreasonable	
Median Closure at E-Y Intersection and Two-way	Unacceptable wetland and ROW impacts	
Frontage Road to Glacier-Nugget	Scored lower than other alternatives	
	Determined unreasonable	
Median Closure at E-Y, Interchange at Nugget	Unacceptable wetland and ROW impacts	
	Reduced business visibility	
	Scored lower than other alternatives	
	Determined unreasonable	
Move Signalized Intersection from Glacier-Nugget to E-Y Intersection	<ul> <li>Unacceptable business impacts due to right-in, right-out movement at Glacier-Nugget intersection</li> </ul>	
	Scored lower than other alternatives	
	Determined unreasonable	
Roundabout Intersection	Unacceptable wetland and ROW impacts	
	No reduction in delay anticipated	
	Scored lower than other alternatives	
	Determined unreasonable	
Relocate Intersection to Southeast of Church	Unacceptable wetland and ROW impacts	
	No reduction in delay anticipated	
	Scored lower than other alternatives	
	Determined unreasonable	
Diverted Left Turn Intersection	Unacceptable wetland and ROW impacts	
	No reduction in delay anticipated	
	Scored lower than other alternatives	
	Determined unreasonable	

Table 4. Alternatives Eliminated in Level 1 Screening

Alternative	Reason for Elimination
Diverging Diamond Intersection Pair (Glacier-	Unacceptable wetland and ROW impacts
Nugget and Yandukin Intersections)	Reduced business accessibility
	No reduction in delay anticipated
	Scored lower than other alternatives
	Determined unreasonable
Single Point Urban Interchange (Overpass) at E-Y	Unacceptable wetland and ROW impacts
Intersection	Scored lower than other alternatives
	Determined unreasonable
Split Diamond Interchange (Overpass) Pair (Glacier- Nugget and Yandukin Intersections)	<ul> <li>Unacceptable wetland and ROW impacts and high cost</li> </ul>
	Determined unreasonable

Table 5. Alternatives and Variants Eliminated in Level 2 Screening

Alternative	Reason for Elimination
Mobility & Median Crossovers	Does not meet the need for an alternative route during a crash
	Determined unreasonable
Mobility & Glacier Spur Road Extension	Does not reduce crash frequency and severity compared to the No Build alternative
	Determined unreasonable
Partial Access Signalized Intersection & Median Crossovers	Does not meet the need for an alternative route during a crash
	Determined unreasonable
Full Access Signalized Intersection & Median Crossovers	Does not meet the need for an alternative route during a crash
	Determined unreasonable
Two Signalized T-Intersections	Unacceptable property impacts
	Determined infeasible
Two Signalized T-Intersections & Glacier Spur Road	Unacceptable property impacts
Extension	Determined infeasible
Dimond Interchange & Median Crossovers	Does not meet the need for an alternative route during a crash
	Determined unreasonable

#### D. Which alternatives should be brought forward into NEPA and why?

• The Partial Access Signalized Intersection alternative would signalize the E-Y intersection but would only allow currently permitted vehicle movements (i.e., no left turns or through movements from side streets would be allowed). A protected pedestrian

- crossing for Egan Drive is a component of the recommended alternative: either a signalized at-grade crossing or a pedestrian bridge. The Glacier Lemon Spur Extension is a component of the recommended alternative. Three additional compatible elements are included in the recommended alternative: Travel Demand Management, Intelligent Transportation System, and Flashing Intersection Ahead or Signal Ahead Signs.
- The Partial Access Signalized Intersection alternative scored the highest among the alternatives that met the project purpose and need, with acceptable impacts to ROW, wetlands, and vegetation. While the Full Access Signalized Intersection and Diamond Interchange alternatives also met purpose and need with acceptable impacts, the Partial Access Signalized Intersection had several advantages compared to the other two top-scoring alternatives, as discussed below. The Partial Access Signalized Intersection alternative has less wetland impacts than the Diamond Interchange alternative and fewer ROW, stormwater, and air quality impacts than the Full Access Signalized Intersection and Diamond Interchange alternatives. The Partial Access Signalized Intersection alternative is less complex, which means there would be less impacts to the traveling public during construction, and construction would be for a shorter period. The overall costs of the Partial Access Signalized Intersection alternative are less than the other two top-scoring alternatives. The overall costs for the benefit provided by the Partial Access Signalized Intersection alternative are more consistent with optimizing the system performance within statewide planning budgets.
- The project team determined that impacts to the Juneau International Airport property and private properties near Honsinger Pond were critical factors in identifying the recommended alternative because acquiring the ROW needed for the Full Access Signalized Intersection and Diamond Interchange alternatives could drastically impact new development planned for that area, which would have socioeconomic impacts that were not considered in the Level 2 Screening measures. Furthermore, acquiring land from the airport is complicated and time consuming (see discussion of Federal Aviation Administration approval in Section 4.3.10 Economic and Right-of-Way, Issues). The Partial Access Signalized Intersection alternative does not impact these properties, while the Full Access Signalized Intersection and Diamond Interchange alternatives do impact these properties.

# E. Did the public, stakeholders, and agencies have an opportunity to comment during this process?

Yes, multiple times. As described in the response to Question 3.A., stakeholders were given the opportunity to comment at each of the outreach meetings and during a comment period after the meetings.

F. Were there unresolved issues with the public, stakeholders and/or agencies? See Table 6.

Table 6. Unresolved Issues

Outstanding Issue	Recommendation for Future Involvement
Protected pedestrian crossing (bridge or at-grade crossing)	<ul> <li>Conduct additional outreach to user groups regarding potential usage of a pedestrian bridge</li> <li>Investigate alternative configurations and approaches that would make it more appealing for users from new development at Honsinger Pond</li> <li>Conduct additional research on demand of a pedestrian crossing at the E-Y intersection</li> </ul>
Pedestrian and transit user input regarding "equity"	<ul> <li>As design progresses, engage a broad range of social service organizations to solicit their input</li> <li>A suggested list of organizations by CFG members includes: <ul> <li>Juneau Coalition on Housing and Homelessness</li> <li>Tlingit-Haida Regional Housing Authority</li> <li>Society of St. Vincent de Paul</li> <li>Transit users working group</li> <li>Southeast Alaska Independent Living</li> <li>REACH, Inc.</li> <li>Catholic Community Services</li> <li>The Glory Hall</li> <li>Polaris House</li> <li>Housing First</li> <li>AWARE</li> <li>Salvation Army</li> <li>Front St. Clinic</li> <li>Southeast Alaska Regional Health Consortium</li> </ul> </li></ul>
USFS Public Land Order process and NEPA	<ul> <li>When initiating public scoping for NEPA, officially adopt the purpose and need and alternatives screening from the PEL study; or present modified purpose and need, as appropriate</li> <li>Engage USFS when conducting the NEPA process and design for Glacier Lemon Spur Extension component</li> <li>Work closely with USFS to understand what they need for their NEPA process</li> </ul>
Capital Transit operations  USACE approval of Section 404 permit needed	<ul> <li>Consult with Capital Transit representatives during the NEPA process and design</li> <li>Engage the USACE during the NEPA and permitting process for components that affect Waters of the US</li> <li>Provide the information developed in consultation with USACE during this process to support the Section 404 permit application</li> </ul>

#### 7. Planning Assumptions and Analytical Methods

#### A. What is the forecast year used in the PEL study?

2040

#### B. What method was used for forecasting traffic volumes?

Previous planning analyses had identified future travel demand forecasts. This information was brought forward to this PEL study.

Traffic counts were collected in 2015 through 2017 for various intersection. Future traffic volumes were forecasted at 0.25 percent per year, per DOT&PF Southcoast Region direction.

C. Are the planning assumptions and the corridor vision/purpose and need statement consistent with the long-range transportation plan?

Yes, all planning assumptions are consistent with existing long-range transportation plans, including the Lemon Creek Area Plan (CBJ 2017), Comprehensive Plan of the City & Borough of Juneau (CBJ 2013), Juneau Non-Motorized Transportation Plan (CBJ 2009), West Egan Drive Corridor Study (DOT&PF 2003), Alaska Statewide Long-Range Transportation Plan (DOT&PF 2016), Southeast Alaska Transportation Plan (DOT&PF 2004), and Juneau Area-Wide Transportation Plan (CBJ 2001).

- D. What were the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion?
  - 2020 land use, factoring in additional growth due to zoning and new development near Honsinger Pond
  - 2020 construction cost assumptions
  - For transportation delay, use U.S. Department of Transportation value of travel time savings with local values (\$28.18 per vehicle hour of delay)
  - 2019 FHWA value per crash (adjusted for 4-level Alaska severity categories)
  - 2040 traffic and network assumptions

# 8. Resources (wetlands, cultural, etc.) reviewed; for each resource or group of resources reviewed, provide the following:

A. In the PEL study, at what level of detail was the resource reviewed, and what was the method of review?

See Table 7 ("Resource" and "Methodology/Data Source Used" columns).

B. Is this resource present in the area, and what is the existing environmental condition for this resource?

See Table 7 ("Present in Study Area/Impacts" column).

C. What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?

See Table 7 ("Next Steps" column).

 Table 7.
 Environmental Resources

Resource	Methodology/ Data Source Used	Present in Study Area/Impacts	Next Steps
Floodplains	Secondary data from the Federal Emergency Management Agency	Yes/Unknown	<ul> <li>Finalize impact assessment</li> <li>Coordinate with Juneau Floodplain Management for floodplain permitting</li> <li>Prepare technical report in compliance with Executive Order 11988 (if needed)</li> </ul>
Wetlands and other Waters of the United States	Secondary data plus high-level field review	Yes/Direct and Indirect Impacts	Conduct wetland delineation     Prepare full impact assessment     Coordinate with USACE
Vegetation and noxious weeds	High level field review	Yes/Yes	<ul> <li>Conduct more detailed field review plus survey of riparian vegetation</li> <li>Prepare Noxious Weed Management Plan</li> </ul>
Threatened and Endangered Species and Other Wildlife (such as migratory birds and fish streams)	Secondary data from the USFWS and ADF&G	Unlikely (endangered species)/Unknown	<ul> <li>Conduct full field survey</li> <li>Prepare full impact assessment</li> <li>Coordinate with USFWS as needed</li> <li>Prepare Biological Resources Report and/or Assessment, if necessary</li> </ul>
Cultural Resources	For historic resources, a full survey will be completed; for other resources, secondary data collection only	Yes/Yes	Obtain agreement from SHPO on the Area of Potential Effects     Conduct historic property, archaeological, and paleontological surveys     Determine effects and submit to the SHPO for concurrence     If necessary, conduct Section 4(f) documentation     If necessary to resolve any adverse
Hazardous Materials	Secondary data review	Unknown/ Unknown	effects, prepare a Memorandum of Agreement     Conduct field review     Determine impacts and mitigation.
Waterials		Offictiowit	<ul><li>Determine impacts and mitigation</li><li>Prepare Technical Report</li></ul>
Recreational Resources or Wildlife Refuges/Section 4(f)	Secondary data, property boundary identification	Yes/Unknown Note: There are no Section 6(f) resources in the study area	<ul> <li>Finalize impact assessment</li> <li>Determine if impacts are de minimis or are exempt from Section 4(f) evaluation</li> <li>If necessary, determine if feasible and prudent alternatives exist</li> <li>Determine Section 4(f) documentation requirements</li> <li>Coordinate with DOT&amp;PF and FHWA to finalize Section 4(f).</li> </ul>
Pedestrian and Bicycle, Traffic and Transit	Secondary data	Yes/Yes	<ul> <li>Conduct NEPA level traffic analysis</li> <li>Develop mitigation as needed for any impacts to traffic, pedestrian/bicycles, etc.</li> </ul>

Table 7. Environmental Resources

Resource	Methodology/ Data Source Used	Present in Study Area/Impacts	Next Steps
Farmland	Not reviewed during the PEL study	No/No	No additional work required
Noise	Identify noise sensitive land uses through aerial photo review	Yes/Unknown	<ul> <li>Follow DOT&amp;PF Noise Policy</li> <li>If required, conduct FHWA Traffic Noise Model (TNM) using plan and profile of recommended alternative(s) plus new 2040 traffic volumes</li> <li>Identify if impacts will occur</li> <li>Conduct feasibility and reasonableness analysis for noise abatement, as needed</li> <li>Coordinate with DOT&amp;PF for review of Noise Technical Report</li> </ul>
Air Quality	Review of secondary data	Yes/Yes	<ul> <li>Review volumes and future LOS data for all intersections</li> <li>Conduct hot spot modeling if necessary</li> <li>Submit Air Quality Technical Report to DOT&amp;PF for review and sign-off</li> </ul>
Water Quality	Secondary data	Yes/Yes	<ul> <li>Collect water quality data</li> <li>Prepare impact assessment</li> <li>Finalize location of water quality facilities if needed</li> <li>Prepare Water Quality Technical Report</li> </ul>
Land Use	Review of secondary data plus future land use forecasts taken from travel demand forecasting task	Yes/Yes	<ul> <li>Prepare existing and future land use mapping</li> <li>Prepare impact assessment</li> <li>Prepare NEPA documentation</li> </ul>
Visual	Secondary data as available	Yes/Yes	Conduct visual impact analysis     Prepare NEPA documentation
Social and Environmental Justice	Census data plus other secondary data	Yes/Yes	<ul> <li>Finalize impact assessment</li> <li>Determine if any impacts are high and adverse for Environmental Justice populations</li> <li>Conduct targeted outreach if needed</li> </ul>
Right-of-Way and Economic	Secondary data plus high-level field review	Yes/Yes	Confirm impact assessment     Prepare NEPA documentation
Cumulative	Secondary data	Yes/Yes	Confirm impact assessment     Prepare NEPA documentation

#### D. How will the data provided need to be supplemented during NEPA?

Data gaps and outstanding tasks to be addressed during the subsequent NEPA process include:

- Finalize Class of Action determination for the Recommended Alternative or stages of it, depending on which Implementation Option is selected (see Chapter 6)
- Coordinate with the SEO once the NEPA process is initiated to determine if any data needs to be updated from the PEL study
- Initiate NEPA scoping, making sure the appropriate conditions for planning products and analyses to be adopted or incorporated into a NEPA process as listed in 23 USC 168 are being followed
- Conduct the NEPA process and prepare NEPA documentation for the Recommended Alternative or any components of it
- Delineate wetlands and conduct a functional assessment analysis, prepare a delineation report, provide a Least Environmentally Damaging Practicable Alternative analysis to USACE, obtain the appropriate wetland permit
- Conduct the Section 106 of the NHPA process
- Consult with USFWS on the need to conduct a bald eagle nest survey
- Assess impacts to Honsinger Pond private property (currently under development)
- Complete the Section 4(f) applicability process, and any Section 4(f) evaluation and documentation needed
- Conduct an air quality analysis (if applicable)
- Determine if additional hazardous materials investigative work is needed
- Update all other impact assessment categories as design or condition changes warrant

# 9. List resources that were not reviewed in the PEL study and why? Indicate whether or not they will need to be reviewed in NEPA and explain why.

Farmlands were not evaluated because they are not present in the study area.

# 10. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where it can be found.

Yes. Please see Chapter 4 Environmental Setting and Consequences, Section 4.3.16.

# 11. Describe any mitigation strategies discussed at the planning level that should be analyzed during NEPA.

See Table 8.

Table 8. Recommended Mitigation Measures

Resource	Mitigation
Floodplains	Mitigation measures that could be considered include:
	Limiting the extent of widening the corridor and ground disturbance to avoid impacts into the adjacent floodplain
	Incorporate design modifications to decrease potential encroachment

 Table 8.
 Recommended Mitigation Measures

Resource	Mitigation
Wetlands and other Waters of the United States	<ul> <li>Mitigation measures that could be considered include:</li> <li>Protect wetlands during construction activities, including such measures as fencing the edges of wetlands and protecting wetlands from pollutants generated during construction using erosion and sediment control best management practices (BMP)</li> <li>Avoid wetlands to the greatest extent practicable during design</li> <li>Minimize impacts to adjacent wetlands</li> <li>Provide compensatory mitigation for wetlands that must be impacted</li> </ul>
Vegetation and Noxious Weeds	Mitigation measures that could be considered include:     Using erosion and sediment control BMPs, such as implementing phased seeding and containing potential pollutants     Ensuring that materials used for the project are inspected and determined to be weed free     Minimizing the use of fertilizers
Threatened and Endangered species and Other Wildlife	Mitigation measures that could be considered include:  Use of BMPs during construction to minimize sedimentation  Revegetation of disturbed areas, including replacement of riparian vegetation  Avoidance of construction during nesting seasons, if occupied nests are observed
Cultural Resources	To be determined if necessary based on the individual cultural resources impacted
Hazardous Materials	Mitigation measures that could be considered include:  Prepare an appropriate health and safety monitoring program to protect workers from exposure to contamination during construction  If contaminants exceed safe worker exposure levels, workers must wear appropriate personal protective equipment; removal and remediation of contaminated sources, should they exist within a project's work limits
Groundwater and Surface Water Use	<ul> <li>A SWPPP would be required for any construction project; this document would outline any necessary BMPs that must be installed to protect any off- site water resources</li> </ul>
Recreational Resources	A separate Section 4(f) analysis would be conducted during any future project's NEPA review. This analysis would determine if the "use" of a Section 4(f) protected resource would occur, and if so, appropriate avoidance and mitigation measures will be developed.
Pedestrian and Bicycle	Mitigation measures that could be considered include:     A traffic control plan that includes measures for non-motorized access during construction activities     Inclusion of non-motorized access improvement components in the final design
Farmland	N/A

 Table 8.
 Recommended Mitigation Measures

Resource	Mitigation
Noise	If noise impacts are identified, mitigation measures could include:  Examination of strategies, such as altering the roadway alignment or vertical profile, adding buffers, adding berms, or adding noise walls  Evaluation of the feasibility and reasonableness of each mitigation technique, including the cost of the mitigation and the benefit to the affected receptors  Construction noise will be subject to relevant local regulations and ordinances
Air Quality	<ul> <li>To address the temporary elevated air emissions during construction, standard mitigation measures that could be considered include:</li> <li>Keeping engines and exhaust systems on construction equipment in good working order</li> <li>Controlling excessive idling of construction vehicles</li> <li>Implementing strict dust control measures</li> </ul>
Water Quality	Mitigation measures that could be considered include:     During construction, temporary BMPs will be used; these could include silt fences, erosion logs, inlet filters, concrete washouts, or other strategies
Land Use	No mitigation is needed
Visual	Mitigation measures that could be considered include:     Avoiding impacts to or relocating facilities that block signage to existing and planned businesses
Traffic and Transportation	N/A
Transit	To address the permanent and temporary impacts to transit facilities and users, standard mitigation measures that could be considered include:  • Maintenance of safe transit access during construction activities
Social Characteristics and Environmental Justice	Any property acquisition will conform to the requirements set forth in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and the Uniform Relocation Act Amendments of 1987 (as amended)
Economic and Right- of-Way	Given the nature of the corridor, construction would also have temporary impacts on the study area businesses. Typical mitigation measures that could be considered include:
	<ul> <li>Maintaining business access</li> <li>Establishing communications between the businesses and construction team</li> <li>Installing additional signage during construction</li> </ul>
Cumulative Impacts	N/A
l l	

# 12. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products that can be used or provided to agencies or the public during the NEPA scoping process?

Information from this PEL study will be made available to agencies and the general public during the scoping phase of a future NEPA process. A link to the online location of the PEL study could be included in the scoping letters to the agencies and the public notice of intent to begin preliminary engineering and the NEPA process. All comments received relative to this issue will be responded to.

These planning products are anticipated for use:

- Purpose and Need Statement
- Environmental Setting
- Methodologies for Analysis
- Range of Alternatives Considered
- · Alternatives Eliminated and Why
- Recommended Alternative

# 13. Are there any other issues a future project team should be aware of?

If the DOT&PF, permitting agency, or other relevant agency intends to adopt or incorporate by reference a planning product developed in this PEL Study, they must determine that this PEL Study meets the ten conditions listed in 23 USC 168(d). This determination may occur at the time NEPA is initiated or later in the process, such as when a permit application is submitted.

The exact configuration of the pedestrian crossing at the E-Y intersection has not been determined. The PEL study evaluated both at-grade crossings and a pedestrian bridge. This remains unresolved, and will need to be resolved during the subsequent design and NEPA process(es).

The best future location of bus stops is also an unresolved issue. This is primarily associated with the Glacier Lemon Spur Extension. Coordination is needed with the transit agency to determine the best location of the bus stops.