

Welcome to the first virtual open house for the Parks Highway Alternative Corridor Planning and Environmental Linkages, or PEL, Study.

## PROJECT TEAM



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Project Manager



**Renee Whitesell**  
Project Manager

**Rachel Steer**  
Public Involvement Lead

**Jovie Garcia**  
Public Involvement Support



**Joe Taylor, PE**  
Engineering Support



**Andrew Ooms, PE, PTOE, RSP**  
Traffic Forecasting Support

This is a federally-funded project led by the Alaska Department of Transportation and Public Facilities, or DOT&PF.

The consultant team is led by DOWL, with engineering support from Lounsbury & Associates and traffic forecasting support from Kittelison & Associates.

## PROJECT BACKGROUND & HISTORY

- PEL Study preceded by several projects, dating back to 1980s
- 2015 Parks Highway Alternative Corridor Conceptual Planning Report
  - Established a vision and explored options for relieving Parks Highway congestion



This study was preceded by several projects, dating back to the 1980's, that sought to identify a bypass corridor around Wasilla.

Most recently, a 2015 Parks Highway Alternative Corridor Conceptual Planning Report created a vision and explored options for relieving Parks Highway congestion through development of a Wasilla area bypass.

## PROJECT BACKGROUND & HISTORY

- This study will:
  - Evaluate existing conditions and issues
  - Develop a clear purpose and need
  - Identify alternatives



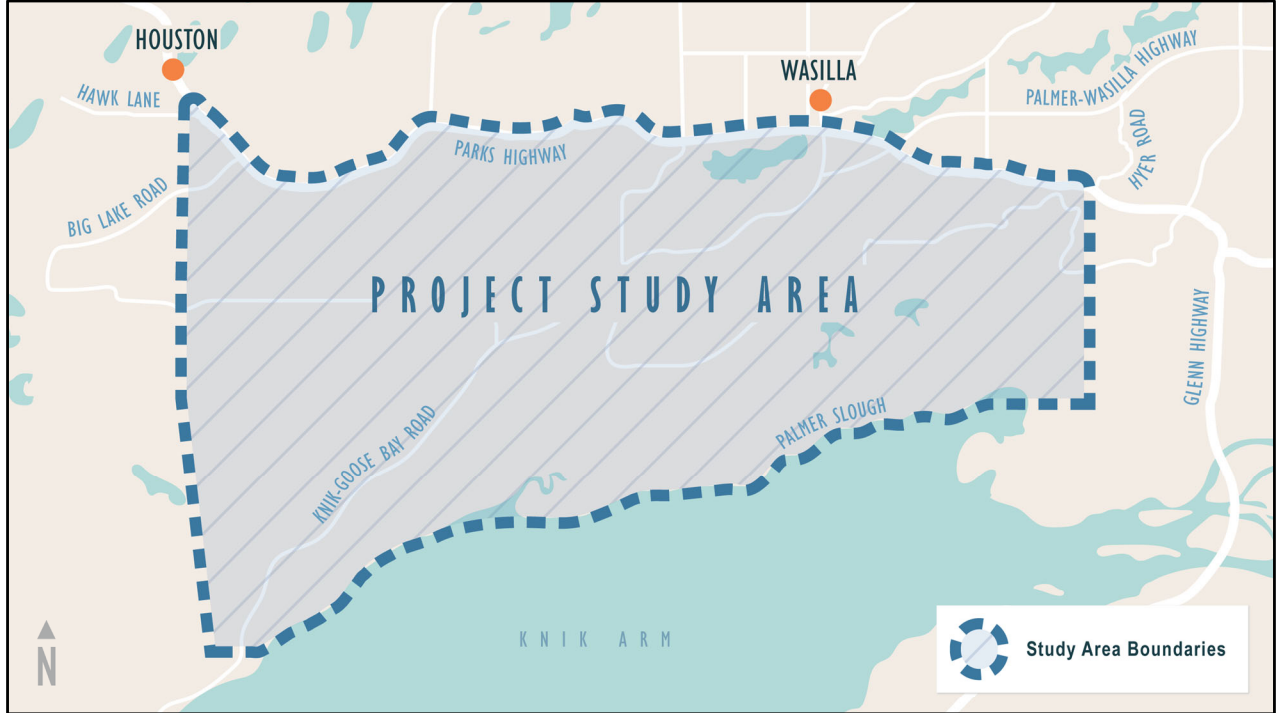
This PEL Study will provide a fresh evaluation of the existing conditions and issues, develop a clear project purpose and need, and identify alternatives that are able to be implemented to effectively permit and construct a Parks Highway Alternative Corridor.

# OPEN HOUSE #1

- Project introduction
- Overview of PEL Study process
- Review of existing conditions and baseline data



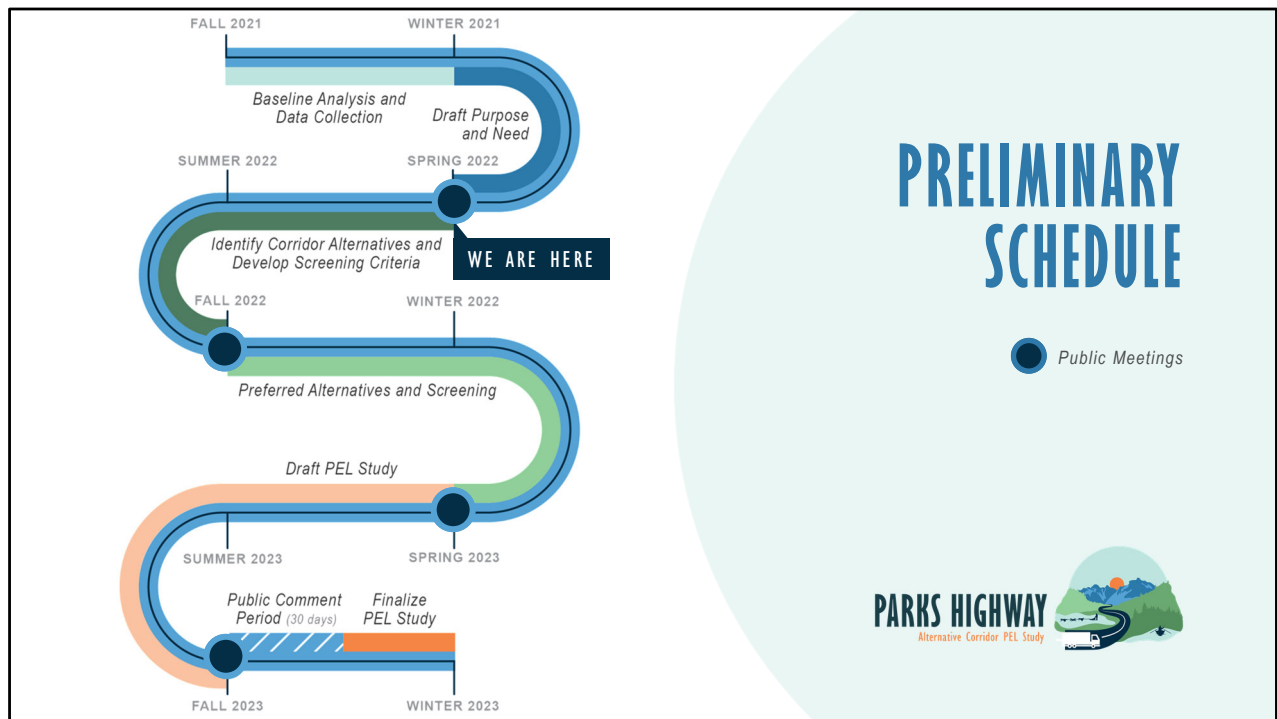
This presentation includes an introduction to the project, an overview of the PEL study process, and a review of existing conditions and baseline data.



Due to sustained population growth in the Mat-Su Valley, the Parks Highway experiences significant traffic delays during peak periods.

The shaded area on this map represents the study area. This is the maximum possible extent of potential alternative Parks Highway corridors. Currently, the project team has not identified any corridor routes within the study area.

The DOT&PF, City of Wasilla, and Mat-Su Borough are aware of the challenges within the study area and are supportive of solutions including development of an alternative corridor.



The project kicked off in Fall 2021 with baseline analysis and data collection and this open house represents the first of many opportunities for stakeholder interaction.

The purpose of this first round of outreach is to inform stakeholders about the study and gather input so the project team has the information they need to draft a purpose and need statement.

Next steps in 2022 include development of corridor alternatives and screening criteria and identification of preferred alternatives.

The project team anticipates publishing a draft PEL study for

public feedback in Fall 2023.



# PLANNING & ENVIRONMENTAL LINKAGES (PEL) PROCESS

PEL is a collaborative and integrated approach to transportation decision-making that:

- a Considers environmental, community, and economic goals early in the transportation planning process
- b Uses the information, analysis, and products during planning to inform the environmental review process

*The PEL process can ease the path as transportation programs and projects move from planning to design and implementation*



PEL studies integrate transportation planning and environmental analysis in a collaborative fashion. They allow us to consider environmental, community, and economic goals early in the transportation planning process and use that data to inform the National Environmental Policy Act, or NEPA process.

The goal of the PEL process is to ease the path of projects moving forward, enable the public to be more involved and, hopefully, save time and money as projects are realized.

## PEL BENEFITS

*The benefits of stronger linkages between transportation planning and NEPA/project development processes can include:*

- ✔ Improved project delivery timelines
- ✔ Stronger agency and public relationships
- ✔ Earlier identification of key environmental resources
- ✔ Better funding and project development information for programming funds
- ✔ Build project with better outcomes
- ✔ Flexible approach that allows more holistic development of transportation improvement strategies



When we tie together transportation and environmental efforts, we often:

- Improve project delivery timelines
- Establish stronger public and agency relationships
- Identify key environmental resources sooner
- And develop flexible approaches that allow for more holistic development of transportation improvement strategies



## BASELINE DATA & EXISTING CONDITIONS

The project team started by gathering baseline data and information on existing conditions.

This data allows the project team to identify areas that deserve special consideration as the study moves forward and it is a crucial part of the alternatives screening process. The following slides will present a high-level review of some of the baseline data and existing conditions. Detailed information is available on the project website.

[www.parkshighwayalternative.com//documents.html](http://www.parkshighwayalternative.com//documents.html)

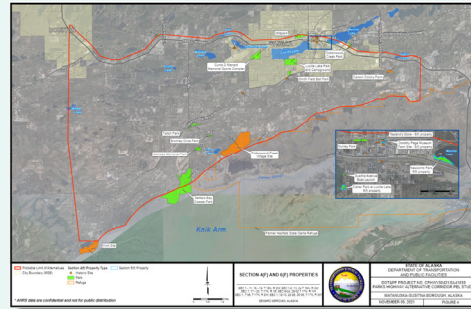
## SECTION 4(F) & 6(F) RESOURCES

### 4(f)

- Established by DOT Act of 1966
- Publicly owned parks, refuges, recreational areas, and historic sites with national, state, or local significance
- 15 parks that are 4(f) properties in study area
- 12 historic properties listed or eligible for listing on National Register of Historic Places
- 292 potentially historic properties that have not been evaluated

### 6(f)

- Recreation areas and facilities funded by the Land and Water Conservation Act (LWCF)
- At least three properties in study area funded by LWCF



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Section 4(f) resources include publicly owned parks, refuges, recreational areas, and historic sites considered to have national, state, or local significance. The DOT Act of 1966 states that DOT's must avoid impacting these resources unless there are no prudent or feasible alternatives to their use. Section 6(f) resources include outdoor recreation areas and facilities funded by the Land and Water Conservation Act, or LWCF.

Section 6(f) regulations prohibit any park or recreation area funded through LWCF from being converted to other uses, unless replaced with an equivalent property.

[www.parkshighwayalternative.com/documents.html](http://www.parkshighwayalternative.com/documents.html)

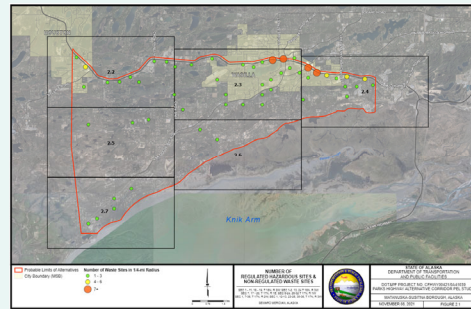
# CONTAMINATED SITES

## Environmental Protection Agency database

- 22 sites in project area
- Most are near the Parks Highway

## Alaska Department of Environmental Conservation database

- 10 sites in project area



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The Environmental Protection Agency and Alaska Department of Environmental Conservation maintain databases that identify regulated hazardous waste sites. Most of the contaminated sites in the project study area are located near the Parks Highway.

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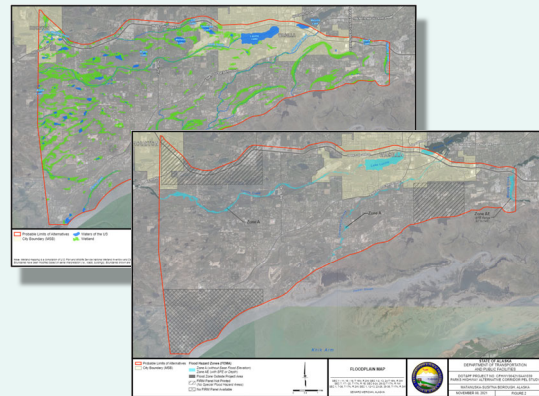
# WETLANDS & WATER RESOURCES

## Wetlands

- Jurisdiction managed by US Army Corps of Engineers
- 14% of study area is wetlands

## Water Resources

- Managed by Federal Emergency Management Agency and Mat-Su Borough
- Generally surround creeks and lakes in the study area



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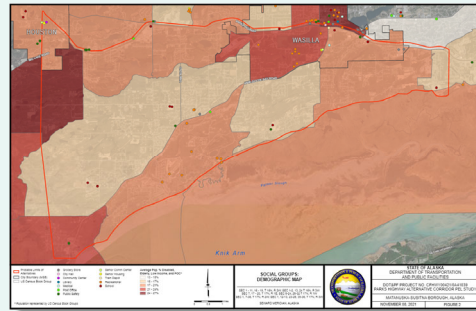
The project team mapped out existing wetlands and water resources for consideration. About fourteen percent of the 44,000 acre study area is comprised of wetlands. Wetlands and water resources generally fall under the jurisdiction of the US Army Corps of Engineers, Federal Emergency Management Agency, and the Mat-Su Borough and any future project design would need to show that impacts to these resources have been avoided or minimized to the extent practicable.

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# DEMOGRAPHICS

## Environmental Justice (EJ) populations

- Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Issued by President Clinton in 1994
- Based on census data
  - *Low income*
  - *Minority*
  - *Over age 65*
  - *Disabled*



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The project team used census data to view where there are concentrations of people who are considered part of an Environmental Justice, or EJ, population.

These are people that are low income, minorities, over the age of 65, or who have disabilities.

These populations may be particularly impacted if a highway corridor disrupts their access to facilities or destinations.

This is a consideration the project team will need to take into account during the screening process as federally-funded transportation projects must demonstrate that they will not result in a disproportionate adverse effect on an EJ

population.

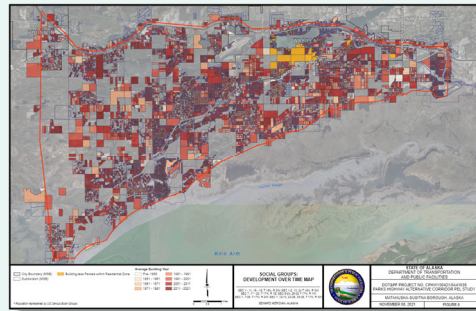
[Executive Order 12898.pdf \(archives.gov\)](#)

[www.parkshighwayalternative.com//documents.html](http://www.parkshighwayalternative.com//documents.html)



## DEVELOPMENT OVER TIME

- Rate of development has increased over time
- Average parcel size has decreased over time



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The study area has seen a significant uptick in development over the last 20 years, with much of that occurring over the last 10 years and on smaller parcels. The location of development needs to be carefully considered to minimize potential right-of-way impacts.

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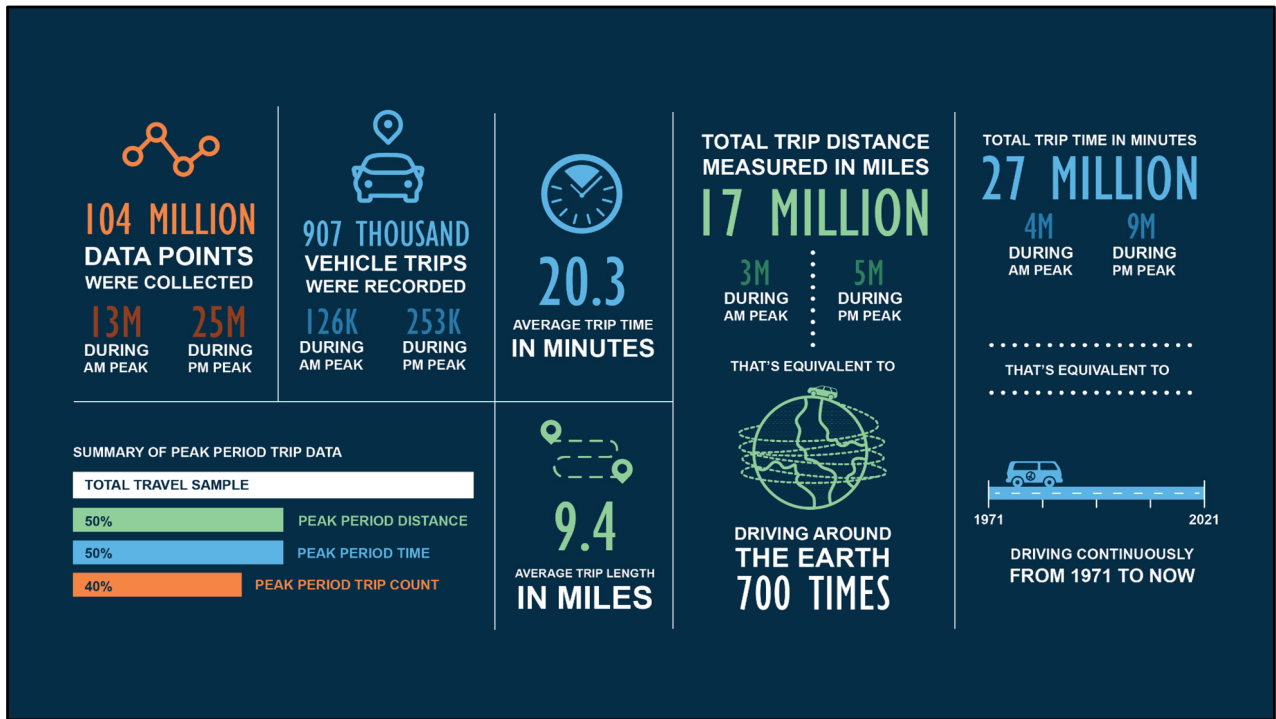


## ORIGIN - DESTINATION STUDY

In addition to environmental baseline data, the project team conducted an origin-destination study to:

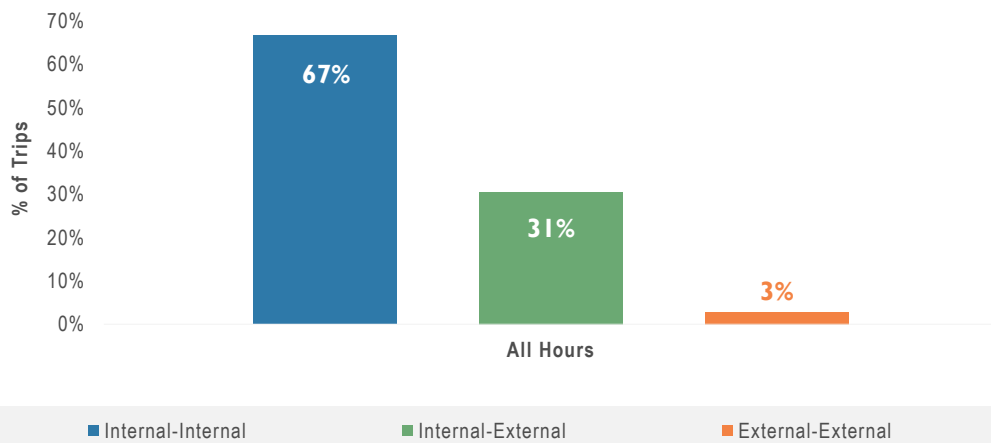
- Assess existing travel patterns in the region
- Estimate how much traffic is likely to shift to an alternative corridor if it was built today, and
- Determine which interchange locations are likely to draw the most traffic away from the existing Parks Highway

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The study used anonymized location and speed data collected over three months through smartphone apps and in-vehicle GPS systems. This “big data” sample allows the project team to derive findings based on a very large sample of trips throughout the region. More than 100 million data points were collected that showed 900,000 trips, 17 million miles of trip distance, and 27 million minutes of travel time. [www.parkshighwayalternative.com//documents.html](http://www.parkshighwayalternative.com//documents.html)

## ORIGIN-DESTINATION



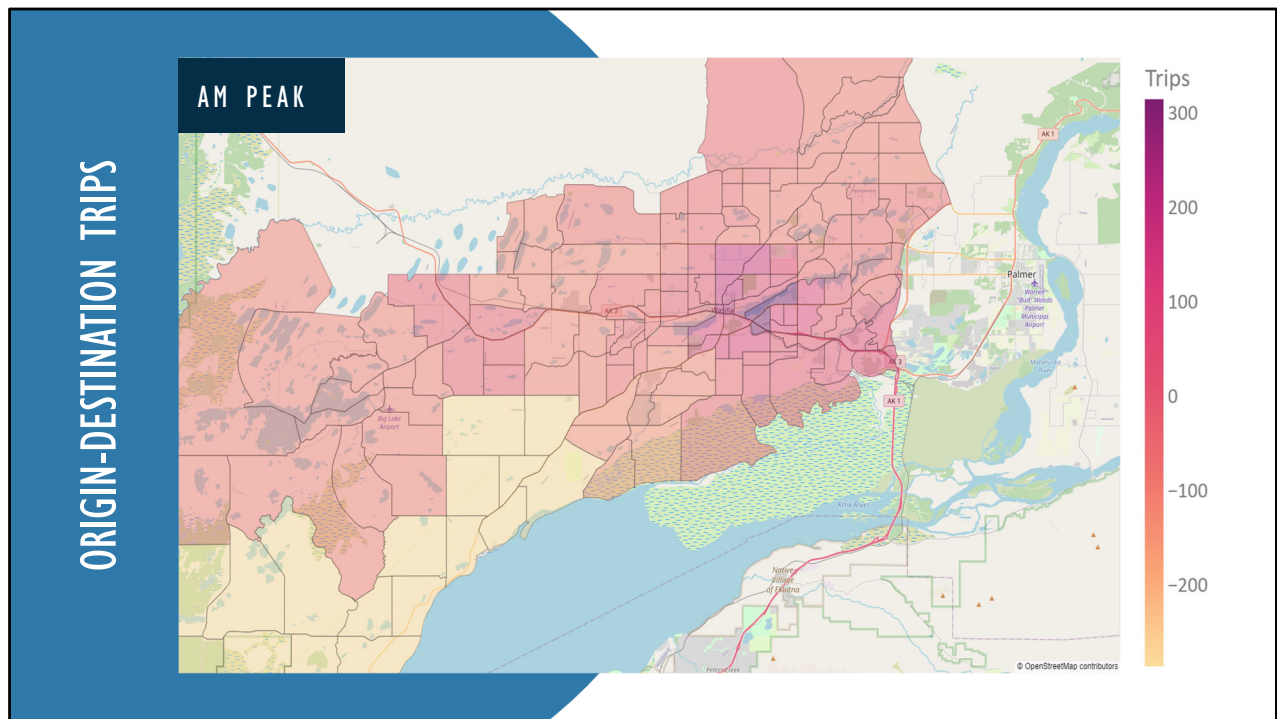
The project team used this data to assess what types of trips are most prevalent on the Parks Highway.

About 2/3 of trips are internal – internal, or local, trips. These are trips that begin and end close to the study area.

One third of trips are internal – external. These are likely people who live in the study area, but commute to other areas for work or other purposes. Only a small number of trips, about 3 percent, are external – external. These are trips with no ties to the study area, where the traveler is only using the Parks Highway as a through route to get to a different destination.

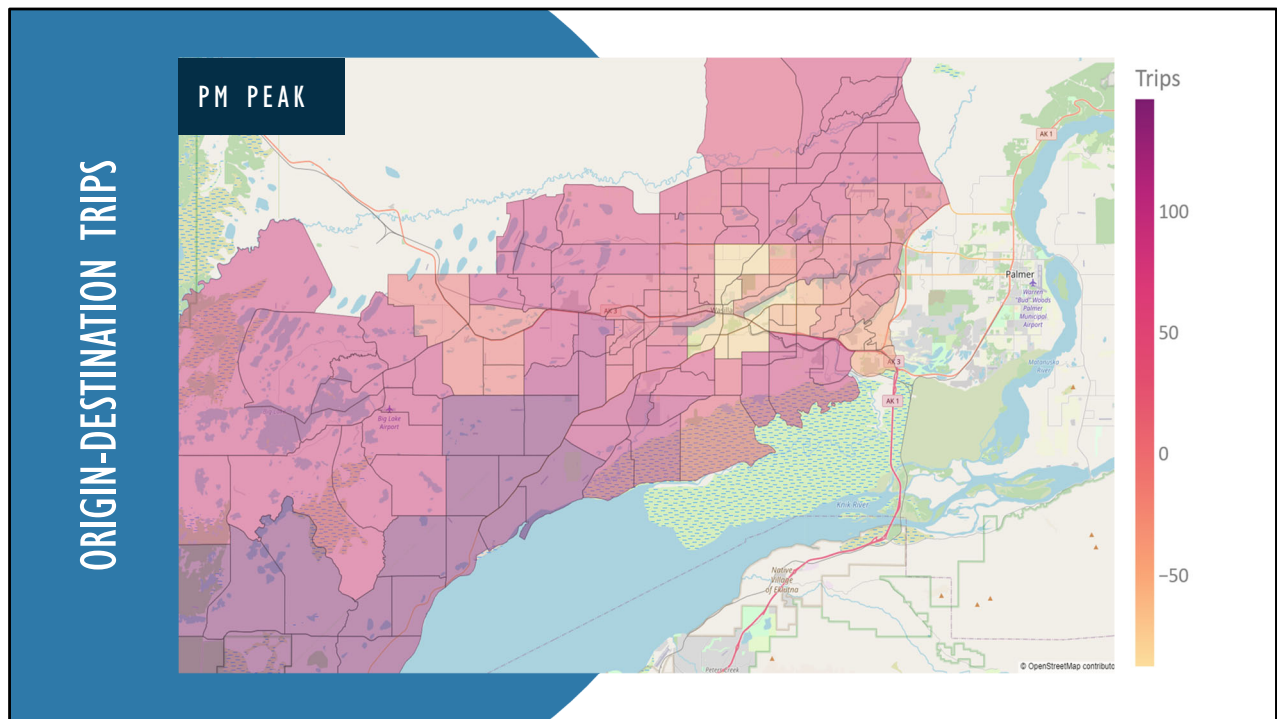
It should be noted that these percentages change by time of day. For example, the percentage of internal – external trips is a higher proportion of the total trips during the am and pm peak periods, when more people are traveling to or from Anchorage, Eagle River, or elsewhere.

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If we just look at internal – internal, or local trips, we see a pattern where drivers are traveling *from* the lighter color areas *to* the darker colored areas. During the am peak period, when we assume people are going to work or school, many trips are destined for downtown Wasilla, the area between the Seward Meridian Highway and Lucille Street, and Meadow Lakes. All of these are employment centers.

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During the pm peak period, we see the opposite pattern. Drivers are coming from downtown Wasilla and Meadow Lakes and heading out toward KGB Road and Wasilla-Fishhook Road, where there are large concentrations of residential properties. Evaluating this data helps us to estimate how many trips might use an alternative corridor to the Parks Highway.

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## SYSTEM PERFORMANCE

In addition to gathering origin-destination data, the project team analyzed system performance targets in terms of safety, mobility, and pavement condition. First, they looked at what performance is like on the existing Parks Highway, and then for context, analyzed performance on controlled access facilities in Alaska and general statewide trends. Controlled access means a roadway has been designed to limit flow on to and off the roadway, generally at interchanges. The Parks Highway is not controlled access through this area.



# SAFETY

Sources:  
Email correspondence  
with DOT&PF, FARS 2019

- 6 fatalities, 25 serious injuries (2017-2019)
- Fatal rate
  - 2x comparable freeways
  - 1.8x statewide interstate average
  - Statewide, principal arterial rate 2.5x interstate rate
- Serious injury rate nearly 3x comparable freeways



Looking at the most recent three-year period prior to the onset of the COVID-19 pandemic, six people died and 25 were seriously injured on the Parks Highway. One of those fatalities was a pedestrian. Evidence shows that high volumes decrease comfort levels for people walking and biking along the Parks Highway and may deter non-motorized travel. The fatality rate per vehicle miles traveled was double the rates on controlled access facilities and double the statewide interstate rate. The serious injury rate was three times the rate on controlled access facilities.

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## TRAFFIC VOLUMES & SPEEDS

- When traffic volumes increase, travel speeds decrease
- 2019 traffic volumes increased 3x the rate of population growth
- Posted speed limit: 45 mph
- PM peak travel period average speed: 30 mph



While population growth has been significant, traffic volumes have grown at an even higher rate. In 2019, traffic volumes grew at three times the rate of population growth. When traffic volumes increase, travel speeds typically decrease. Our analysis highlighted that although the posted speed on the highway is 45 miles per hour, it drops closer to 30 miles per hours between 3PM and 6PM, the PM peak travel period.

Looking at volumes and speeds in tandem, as peak period volumes grow, there will be more and more hours of 30 miles per hour average speeds. This shift has significant implications both for freight, which is reliant on 50 mile per

hour average speeds to avoid supply chain issues, and for local consumers who choose to avoid making trips to businesses because of excessive congestion related travel delay.



## POPULATION & TRAFFIC FORECAST

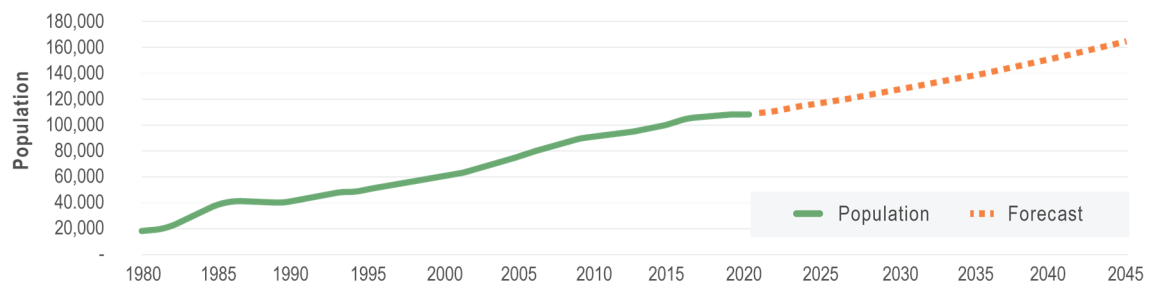
# BASELINE POPULATION & TRAFFIC FORECAST



Department of Labor (DOL) Historical Population and Growth Projections forecasts MSB growth at 1.7 percent annually to 2045.



The DOL forecast will be used for the Purpose and Need.



The project team is using the Department of Labor Historical Population and Growth Projections as its baseline for development of the purpose and need. This forecast is for the Mat-Su Borough to continue to grow at 1.7 percent annually through 2045. This is a higher growth rate than other places in Alaska, and it reinforces the Mat-Su's strong growth over the last several years. As we move forward with this study we will refine and strengthen our population and traffic forecasts as population scenarios evolve.



All of this baseline data, from environmental resources to traffic data and population forecasts, helps to inform the study's purpose and need.

## WHAT IS THE PURPOSE & NEED?



### PURPOSE

Why the project is being proposed and the positive outcomes intended.



### NEED

The key problems to be addressed and explanation of underlying causes to those problems.

The purpose statement sets out why the project is being proposed and the positive outcomes intended by it. The need statement outlines the key problems to be addressed and explains the underlying causes of those problems. The baseline data presented here helps stakeholders and the project team identify the specific problems that must be addressed by a potential alternative corridor to the Parks Highway.

## WHY IS PURPOSE & NEED IMPORTANT?

- ✓ Helps identify a reasonable range of project alternatives
- ✓ Creates a shared understanding of the transportation problems, objectives, and possible solutions
- ✓ Defines project scope, guides development and evaluation of alternatives
- ✓ Helps streamline environmental analysis
- ✓ Help identify potential context sensitive solutions
- ✓ Justifies impacts and spending of funds
- ✓ Helps with project programming



There are many reasons why stakeholder input during purpose and need development is valuable.

It...

- Helps set a framework to support the project team and stakeholders in identifying a reasonable range of project alternatives
- Creates a shared understanding of problems, objectives, and solutions with stakeholders, agencies, and the public
- Guides the evaluation of alternatives and streamlines environmental analysis
- And it assists with project programming and funding



## EMERGING THEMES: PURPOSE & NEED



### **Parks Highway Function:**

Local, regional, and through trips all using Parks Highway through Wasilla.



### **Safety:**

Fatal and serious injury crash rate well above targets and levels on comparable facilities.



### **Multi-Modal Transportation:**

Facilities for walking and bicycling deter use of these modes; access to transit can be challenging.



### **Delay:**

Speeds reduce during peak travel times and add hours of delay to trips. As population and volumes grow, more hours of delay are likely.



### **Travel Time Reliability:**

Delay experienced by all trips; significant delays for freight vs. comparable facilities.



### **Land Use:**

Pace of land uptake for development increasing.



### **Economic Impact:**

Travel time delay reduces supply chain reliability, impacts function of Wasilla urban core.



### **Population Increase:**

Population has grown by 20% between 2010 and 2022 in the Mat-Su.

The project team has identified eight emerging themes for the purpose and need of the Parks Highway Alternative Corridor.

- **Function:** Currently, the Parks Highway is supporting local, regional, and through trips through Wasilla. This is typically served by different facilities with specific functions.
- **Safety:** Baseline data shows there is a significant safety issue on the Parks Highway. Fatal and serious injury crash rates are well above targets and levels on comparable facilities.
- **Multi-Modal Transportation:** Right now, facilities in the

Wasilla urban core are not appealing to walkers and bicyclists and access to transit can be challenging.

- Delay: Data shows that speeds reduce during peak travel times. As population and volumes grow, more hours of delay are likely.
- Travel Time Reliability: Increased delay results in a decrease in travel time reliability for all trips, including a significant delay for freight trips.
- Land Use: The pace of land development in the Wasilla area has increased with more density and smaller lots. All of this results in higher demand on transportation facilities. In addition, the development of the Wasilla downtown urban core as a vibrant urban center depends on connections for walking and biking, which are challenging to realize with the current highway congestion.
- All of this is creating an economic impact. Delay impacts the function of the Wasilla urban core area, increasing the risk that travelers will choose an alternative destination for shopping and other essential services.
- These elements are occurring as a consequence of population growth in the Mat-Su Borough.

# WHAT'S NEXT?



## UPCOMING OPEN HOUSES

#	Focus	When
1	<ul style="list-style-type: none"><li>▪ Baseline data and existing conditions</li><li>▪ Purpose and need</li></ul>	March 2022
2	<ul style="list-style-type: none"><li>▪ Range of alternatives</li><li>▪ Alternatives screening process</li><li>▪ Screening criteria</li></ul>	Fall 2022
3	<ul style="list-style-type: none"><li>▪ Preliminary alternative screening results</li><li>▪ Detailed alternative screening criteria</li></ul>	Spring 2023
4	<ul style="list-style-type: none"><li>▪ Detailed alternative screening results</li><li>▪ Recommended alternatives</li></ul>	Summer/Fall 2023

The project team is wrapping up its analysis of baseline data and existing conditions and has started drafting a purpose and need statement.

Next, we will identify corridor alternatives and develop screening criteria and bring those forward for stakeholder input in Fall of 2022.

In Spring of 2023 we will present the results of the preliminary alternative screening and move forward into detailed alternative screening.

Later in 2023, the project team will present the recommended alternatives for future development.



Your input is valuable. Tell us what you think about these emerging themes.

What's important? What's missing?

Scan this QR code to answer a short survey. Your feedback will be considered as the project team moves forward with study development.

This survey will close at 5 pm on May 30. Comments and questions will be accepted throughout the project.

# THANK YOU!

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Submit questions and comments any time to [parkshighwayalternative@dowl.com](mailto:parkshighwayalternative@dowl.com). Thank you.