Caltrans®

PLANNING & ENVIRONMENTAL LINKAGES STUDY GUIDEBOOK

First Update: December 2024

Foreword

Planning and Environmental Linkages (PEL) is a new process to the California Department of Transportation (Caltrans) but not a new process in the transportation sector. This Guidebook outlines how Caltrans teams can apply and take advantage of PEL. There may be a learning curve for Caltrans staff and an initial investment of resources, but PEL offers meaningful benefits and aligns with Caltrans' mission, values, and priorities. As you review this Guidebook, consider how PEL might further support Caltrans' mission, values, goals, and priorities. How can PEL improve your contribution to the transportation system?

Mission: Provide a safe and reliable transportation network that serves all people and respects the environment. PEL promotes considering a wide range of transportation alternatives. It promotes environmental stewardship by evaluating environmental issues during planning with engagement of resource agencies. Caltrans can consider the most environmentally responsible projects and most appropriate transportation solutions.

Value: Innovation. We are empowered to seek creative solutions and take informed risks. PEL is new for California and allows Caltrans staff to tailor it to meet Caltrans' needs while addressing the transportation problem. It provides an opportunity to evaluate a variety of transportation solutions.

Value: Engagement. We inspire and motivate one another through effective communication, collaboration, teamwork, and partnership. The PEL approach requires closer collaboration between planning and environmental staff at Caltrans. Over time, this level of collaboration builds stronger relationships between environmental and planning, as well as communication with external partners.

Priority: Efficiency. Senate Bill 1 requires Caltrans to generate $100 million in savings annually to reinvest in additional maintenance and rehabilitation projects, and Caltrans should match those results in all budget areas. The up-front investment in a PEL Study will result in substantial savings during the environmental review process. NEPA and CEQA represent some of the highest risks of delay in the project delivery process.

Priority: Partnerships. Caltrans has to build great relationships by initiating broad, inclusive conversations with all stakeholders and leveraging the expertise of business partners. Through working with stakeholders, partner agencies, and the public early in the process, Caltrans will gain trust, maintain buy-in, and share resources to ensure the best outcomes.

Caltrans Equity Statement

The California Department of Transportation (Caltrans) acknowledges that communities of color and underserved communities experienced fewer benefits and a greater share of negative impacts associated with our state's transportation system. Some of these disparities reflect a history of transportation decision-making, policy, processes, planning, design, and construction that "quite literally put up barriers, divided communities, and amplified racial inequities, particularly in our Black and Brown neighborhoods."[1]

Caltrans recognizes our leadership role and unique responsibility in State government to eliminate barriers to provide more equitable transportation for all Californians. This understanding is the foundation for intentional decision-making that recognizes past, stops current, and prevents future harms from our actions.

To create a brighter future for all Californians, Caltrans will implement concrete actions as outlined in our Race & Equity Action Plan, regularly update our Action Plan, and establish clear metrics for accountability in order to achieve the following commitments:

1. **People** - We will create a workforce at all levels that is representative of the communities we serve by improving our recruitment, hiring, contracting, and leadership development policies and practices.
2. **Programs & Projects** - We will meaningfully engage communities most impacted by structural racism in the creation and implementation of the programs and projects that impact their daily lives by creating more transparent, inclusive, and ongoing consultation and collaboration processes. We will achieve our equity commitments through an engagement process where everyone is treated with dignity and justice. We will reform our programs, policies, and procedures based on this engagement to avoid harm to frontline and vulnerable communities. We will prioritize projects that improve access for and provide meaningful benefits to underserved communities.
3. **Partnerships** - By leveraging our transportation investments, we also commit to increasing pathways to opportunity for minority-owned and disadvantaged business enterprises, and for individuals who face systemic barriers to employment.
4. **Planet** - We commit to combating the climate crisis and its disproportionate impact on frontline and vulnerable communities — such as Black and Indigenous peoples, communities of color, the people experiencing homelessness, people with disabilities, and youth. We will change how we plan, design, build, and maintain our transportation investments to create a more resilient system that more equitably distributes the benefits and burdens to the current and future generations of Californians.

[1] https://calsta.ca.gov/press-releases/2020-06-12-statement-on-racial-equity

Contents

CHAPTER HIGHLIGHTS

- *What is Planning and Environmental Linkages, or "PEL"*
- *How PEL is supported at the federal level and uniquely applied by state Departments of Transportation*
- *Considerations for using the PEL approach and the associated benefits*

1 Introduction

ABOUT PEL

The Planning and Environmental Linkages (PEL) concept has been a focus of the Federal Highway Administration (FHWA) since the early 2000s. FHWA has identified the PEL concept by various names over time, including "Linking Planning and NEPA," which makes the specific connection to the National Environmental Policy Act (NEPA), and "integrated planning", which recognizes the essential consideration of land use, economic development, and environmental features during long-range transportation planning. Some state Departments of Transportation (state DOTs) that have applied the PEL concept have also developed their own name to describe the practice, while others simply call it PEL based on the earliest regulatory language that supported PEL in the Code of Federal Regulations (CFR).[2]

Regardless of the name, PEL has always been and is today a collaborative effort between transportation planners and environmental practitioners to streamline project development.

[2] See Appendix A to CFR Title 23, Part 450. Practitioners refer to 23 CFR 450 as the Final Planning Rule, which is consistent with existing statutory requirements for transportation.

LEARN MORE

Who is a Stakeholder?

Stakeholders include any groups, individuals, and agencies affected by the project and therefore will naturally differ for each PEL Study, based on PEL Study size and the purpose of the PEL.

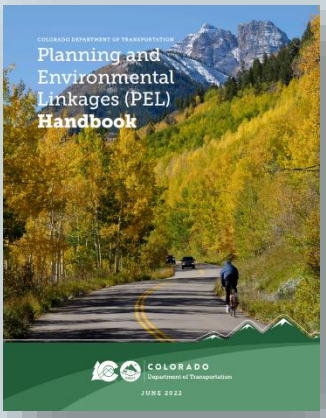
It is meant to be highly flexible and allows practitioners to adapt the PEL process to the unique needs of the agencies carrying out the PEL Study. The PEL approach includes strong stakeholder engagement and buy-in to ensure useful outcomes and maintain compliance with federal transportation planning requirements and NEPA. The PEL process involves evaluation and documentation of environmental, community, and economic needs during transportation planning with the goal of using the resulting planning products in project development, design, and construction. At its broadest application, the PEL process can allow the adoption of purpose and need and initial alternatives prior to starting the NEPA process while, at the same time, it can facilitate collecting valuable information from stakeholders that can later be used to identify and assess impacts in an environmental document.[3]

Importantly, using PEL in California does not change the familiar system planning and project development processes. Instead, it integrates additional information-gathering during planning at a level that will also be appropriate to use in environmental review in subsequent project development. This can allow both planning and project development to be completed in less time and with consensus-based decisions. The PEL approach also includes the participation of resource agencies that are typically only engaged as part of NEPA evaluation that takes place later in the project development process (i.e., the environmental document stage). This early involvement of environmental agencies facilitates a collaborative effort to emphasize priority resources and mitigation opportunities as part of screening potential transportation solutions. The final piece of this collaborative approach is early public and stakeholder engagement. The goal: the right people at the table at the right time to make the best transportation decisions possible.

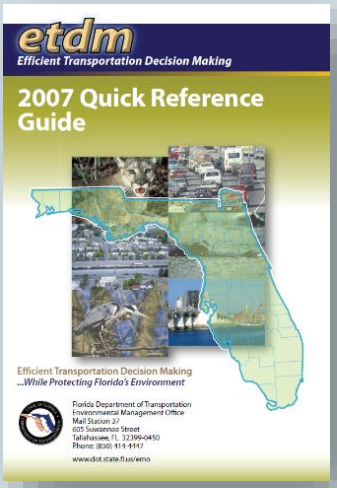
[3] 23 United States Code (USC) 168(d).

PEL SUCCESS

The range of approaches to PEL successfully used by individual state DOTs illustrates the flexibility that PEL offers. For example:



Colorado DOT has used the PEL process extensively and has created useful tools for implementing PEL in Colorado, including a decision matrix, alternatives evaluation guidance tool, and handbook. They also have a multi-signatory PEL Partnering Agreement with federal, state, and regional agencies that has been in place since 2009.



Florida DOT (FDOT) uses a PEL-like process called Efficient Transportation Decision Making (ETDM) that is consistent with 23 USC 139 and 168, two major statutes that also support the PEL process. FDOT first published its ETDM manual in 2006 and has updated it several times since.

North Carolina DOT's (NCDOT) integrated planning strategy is outlined in its Environmental Stewardship Policy, from which Merger01, Ecosystem Enhancement Program[4] and Integrated Transportation Planning and Project Development Processes came about. Integration is essentially how NCDOT applies the PEL process. NCDOT began this program in 2005.

Other states that have used PEL or a PEL-like process include Arkansas, Arizona, Indiana, Montana, Michigan, Minnesota, New Jersey, Oregon, Pennsylvania, Texas, Utah, Virginia, and Washington.

Additional state case studies can be found at: https://www.environment.fhwa.dot.gov/env_initiatives/pel/publications/PEL_in_Practice-Discussions_with_States.aspx. Also see Appendix 2 of this Guidebook for examples of PEL reports from other states.

---

[4] In 2001 NCDOT partnered with the North Carolina Department of Environment and Natural Resources and the U.S. Army Corps of Engineers to establish an integrated Section 404 permitting and NEPA process (Merger01) and a mitigation approach at the ecosystem level.

ABOUT THIS GUIDEBOOK

The California Department of Transportation (Caltrans) developed this PEL Study Guidebook to guide implementation of the PEL process in California. The Guidebook helps District and Headquarters staff take advantage of PEL benefits, while minimizing the potential for risks of lengthy or controversial project development. This resource will be most beneficial to transportation practitioners with experience in transportation system planning and/or NEPA and the California Environmental Quality Act (CEQA). Caltrans staff can use this Guidebook to:

- Understand regulatory authority and support for PEL studies
- Identify the steps within the planning process that support PEL
- Maximize the benefit of the PEL approach to advance planning products directly into project development and environmental review

The Guidebook includes best practices from other state DOT PEL studies, FHWA-sponsored PEL Peer Exchanges, and Caltrans' recent *State Route 37 Corridor Planning and Environmental Linkages Study* (December 2022). The Guidebook is organized as follows:

Chapter	Questions Answered
1. Introduction	▪ What is "PEL" and how is it different from other studies? ▪ Why consider using PEL?
2. When and How to Initiate PEL	▪ When is a PEL Study the right approach? ▪ What approvals are needed to get started? ▪ What funding sources are available for PEL?
3. The Caltrans PEL Study Process	▪ What is the Caltrans PEL Study process? ▪ What are the roles and responsibilities of participants? ▪ What key decisions must be made?
4. PEL Study Outcomes in Future Environmental Processes	▪ How can the PEL Study outcomes be used in NEPA? ▪ Can PEL Study outcomes be useful during CEQA?
A1. Regulatory Framework for PEL	▪ How is PEL reflected in statutes and regulations?
A2. PEL Studies in Other States	▪ Where have PEL processes been used outside of California?
A3. Caltrans PEL Questionnaire Template	▪ What are specific considerations in implementing a PEL approach?

NEPA = National Environmental Policy Act; CEQA = California Environmental Quality Act

While this Guidebook references statutory and regulatory requirements, it is not a substitute for understanding those requirements in general or as they pertain to a specific program or project. This Guidebook also does not change or supersede Caltrans or FHWA requirements or guidance related to transportation planning, NEPA, or CEQA.

PEL IN CALIFORNIA

When implementing PEL in California, it may be useful to consider PEL in the context of the Caltrans corridor planning process or other long-range planning study and as an input to project development. As stated above, using PEL does not change the fundamental parts of system planning and project development as documented in Caltrans guidance. The following descriptions of planning and project development clarify typical distinctions between these groups. The PEL approach combines the responsibilities into a single effort, requiring staff skills from both.

- **Transportation system planning** considers the environment, community values, and the economic context along with transportation needs to develop potential transportation solutions. In a PEL approach, planning decisions and planning products are fully documented and can move directly into project development. Planning products can be decisions, analyses, viable solutions to the problem, or any other well-documented and supported outcome.
- **Project development** begins at feasibility studies or with project initiation documents and ends when construction is completed. Project development in the context of PEL includes consideration of alternatives, environmental resources and effects, and mitigation as inputs for NEPA. It also involves coordination with resource agencies.

PEL can begin before, during, or after a long-range planning study, but perhaps the best option is to identify the need for PEL during the earliest steps of planning. This allows a specific "project" area to be identified for a PEL Study without impacting the overall progress of the corridor or subarea study. PEL and the larger planning study can then proceed along parallel paths, sharing information that coordinates decisions without either being delayed. The timeframes do not need to be the same. **The key is coordination of the planning process and the PEL process so that decisions are mutually supportive.**

PEL studies are typically undertaken prior to funding a transportation improvement project and initiating NEPA. They may also occur before a transportation solution is identified. Although PEL regulations do not apply to CEQA, much of the information generated for a PEL Study can also be used in the CEQA process. More detail on how PEL can contribute to both NEPA and CEQA processes and additional guidance for transitioning from the PEL Study to the CEQA or NEPA study are provided in Chapter 4.

PEL is inherently flexible and can be used for programmatic approaches and individual projects. At the programmatic scale, planning decisions include identifying the types of improvements to meet the transportation need and financial measures needed to support the improvements. For projects, PEL can result in purpose and need, recommended alternative(s) to carry forward to NEPA, stakeholder identification, identification of key concerns, and project prioritization. As a result, the final project will most likely reflect what the public and stakeholders anticipated and supported—a good outcome for everyone.

WHEN IS PEL THE RIGHT CHOICE?

It is important to know when to undertake PEL because not all projects or corridors would benefit from PEL equally. Caltrans staff should first consider timing of a potential PEL Study and whether the NEPA process is expected to begin within five years after the end of the PEL Study[5] to achieve the greatest benefit. The following questions assist in determining whether a PEL Study is an appropriate solution for a particular transportation problem.

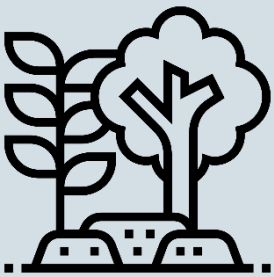
- **Is the transportation problem complex?** A PEL approach can help Caltrans address transportation problems by examining a variety of environmental scenarios related to land use, population growth, climate change, or other parameters.
- **Is the potential project complex?** A PEL approach could help streamline the environmental review process when a potential project has complex considerations (e.g., will cross multiple jurisdictions, require permits or approvals from multiple agencies, or have conflicting environmental issues) and will likely require an Environmental Impact Statement (EIS) or Environmental Assessment (EA) under the schedule constraints of the NEPA implementing regulations (*see* 40 CFR section 1501.10).
- **Is the project controversial?** Consensus building and stakeholder input are key parts of a PEL approach. If this process and input will benefit the project due to controversy or other stakeholder concerns, then consider PEL.

---

[5] The five-year timeline is included in the 10 requirements to "adopt" outcomes of PEL directly into NEPA as identified in 23 U.S.C. 168. See pages 16–17 for the list and discussion of the 10 requirements. Even if NEPA begins after five years, the PEL Study will provide useful information and can be considered for use under the "incorporate by reference" approach. In an August 24 Caltrans discussion with FHWA representatives while preparing an Addendum to the SR 37 PEL, FHWA clarified that the five-year timeline does not mean that a PEL study must be updated at those intervals in order to remain valid. Rather, FHWA clarified that PEL updates are warranted only when information in them is no longer accurate or complete and when a project is being carried forward. In practice, when a project that underwent a PEL is ready to move forward, assessing the PEL for its continued accuracy and completeness is good practice.
FHWA emphasized that PEL is a streamlining tool, and revalidating the information every five years without a need to do so would not be streamlining.

- **Are there major unknown factors?** PEL can be helpful when a transportation project is challenging to program because of unknowns like the potential for many transportation solutions, uncertain costs, or undetermined enivronmental resources or potential effects.
- **Is there a potential risk in following the traditional planning process?** A PEL process can support decision-makers with a finer-scale study that incorporates stakeholder and public involvement prior to committing funding and resources.

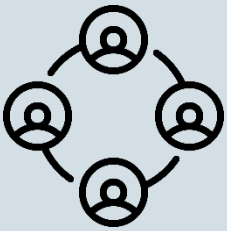
Additional guidance on determining when a PEL Study is the right approach and how to initiate a PEL Study is provided in Chapter 2.



PEL BENEFITS

Increased environmental stewardship: PEL encourages a more detailed consideration of environmental issues during planning. Early development and collaboration with stakeholders and regulatory agencies to collect information about environmental resources improves the quality of information available so that Caltrans can consider the most environmentally responsible projects and transportation solutions.

Shortened schedule and reduced cost: The PEL process allows for the early identification of environmental resources, which can help avoid or reduce costly impacts and schedule-intensive processes during environmental review. Information from a PEL Study helps get a head start on and tailor subsequent NEPA and CEQA processes. It can also support the NEPA and Clean Water Act Section 404 integration process.



Improved agency and public involvement: Frequent and early collaboration, particularly with federal and state resource agency staff, helps address concerns early and increase awareness of key issues during the NEPA and CEQA processes. Formal agreements with agencies may also result.

Improved project cost estimates and prioritization: The PEL process can provide more refined project information for estimating costs and prioritizing projects for programming, including information for grant and funding applications. The PEL process also informs the potential level of NEPA and CEQA documentation as well as a project-specific definition of purpose and need, including logical termini and independent utility.

Stakeholder and public buy-in: Public and stakeholders can become confused and dissatisfied when planning decisions are not visible during the NEPA process, which can increase the risk for controversy and lengthy project development timelines. PEL helps the public connect the dots between planning options and NEPA alternatives by directly using the planning products in the environmental review process.

HOW DOES PEL SUPPORT THE REGULATORY CONTEXT?

Although PEL is not a federal mandate, federal statutes and regulations support it and it may assist transportation agencies in meeting federal requirements and recommendations. For example, PEL supports meeting the transportation planning factors that are required for state DOTs and metropolitan planning organizations (MPOs). Two planning factors[6] specifically address Caltrans' interest in PEL. These are:

- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns; and
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.

PEL also helps meet the National Performance Goal[7] to reduce project delivery delays by streamlining environmental review. Using PEL has the potential to strengthen relationships with resource agencies, stakeholders, and the public over time through a transparent, inclusive, and predictable decision-making process.

This Guidebook does not provide specific connections to many Caltrans or other relevant state policies in place at this time because those policies and priorities change over time. However, the PEL process outlined in this Guidebook is specifically linked with, and supports, the Caltrans *Corridor Planning Process Guide* and the *Project Development Procedures Manual*. In short, PEL offers benefits in planning and project delivery without revising the traditional way of doing business for Caltrans staff.

This Guidebook and associated training (see below) are intended to support Caltrans staff who wish to engage in a PEL Study. The information provided presumes that planning staff and NEPA practitioners intending to use PEL are skilled in their respective disciplines and can make the detailed decisions necessary to move from a transportation problem to a transportation improvement. PEL is flexible and adaptable to any context and therefore individual studies will not be the same. The five steps outlined in the following chapters serve as a guide, with flexibility to best address the needs of individual PEL Studies.

---

[6] Other planning factors include increasing safety, security, accessibility, and mobility; promoting system management and operation; enhancing integration, connectivity, and tourism; emphasizing system preservation; and supporting economic vitality (23 CFR 450.206 (statewide and nonmetropolitan) and 23 CFR 450.306 (metropolitan)).

[7] National Performance Goals are outlined in 23 USC 150(b), which states that the "It is in the interest of the United States to focus the Federal-aid highway program on the . . . national goals. . . ."

TRAINING

An on-demand web-based training module is available for Caltrans staff that provides key information to successfully use PEL. The training contains four modules that, with a focus on the collaboration in PEL, explain how to:

1. Identify the intent of a PEL approach and the primary benefits it can offer.
2. Explain when PEL is most useful and how to initiate a PEL Study.
3. Describe the process Caltrans uses to conduct a PEL Study.
4. Explain the PEL interface with other planning studies and with NEPA and CEQA.

The training is available internally to Caltrans staff.

CHAPTER HIGHLIGHTS

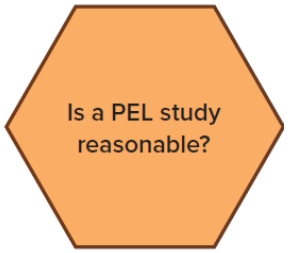
- *Deciding when using a PEL approach is appropriate*
- *Obtaining the necessary approvals and agreements to initiate and fund PEL*
- *Understanding statutory PEL and how to apply it*

2 When and How to Initiate a PEL Study

As presented in the previous chapter, PEL has the potential to bring many benefits to Caltrans and partner agencies when used in an appropriate context, with leadership agreement and resources to conduct the study. Using a PEL approach is optional, so it is important to look at the surrounding factors and determine how to maximize the benefits of PEL.

In the following sections, a hexagon identifies where a decision is needed. Use these prompts to outline the initial steps in using a PEL approach.

DECIDING WHEN TO USE PEL



As a starting point, a simple set of criteria for considering when to use PEL is when there is: (1) unusual complexity, (2) significant controversy, (3) an urgent need, or (4) an identified risk in using a traditional planning and project development approach. When one or more of these situations are present, PEL is typically a reasonable approach. Transportation practitioners will be able to identify the first three of these criteria, but risk is usually considered by decision-makers within the agency. Here are some more-detailed considerations to help clarify when initiating PEL is reasonable.

Consideration	PEL?	Explanation
The potential project is complex (e.g., multiple jurisdictions, permits or approvals from multiple agencies, conflicting environmental issues), and likely requires EIS or EA.	✓	PEL can help clarify project complexities and develop information that can get a head start on the NEPA process.
Costs or NEPA class of action are unclear, causing challenges with the project.	✓	The PEL Study can help determine the NEPA class of action as well as define a range of reasonable alternatives. This will clarify the potential cost of construction.
The transportation problem has a wide range of potential impacts. There are likely benefits from examining a variety of environmental scenarios related to land use, population growth, or climate change.	✓	PEL allows substantial flexibility in examining considerations and alternatives before delving into the more-structured environmental analysis framework.
Project is controversial. Consensus building and stakeholder input would benefit the project due to controversy or other stakeholder concerns.	✓	PEL incorporates early and consistent public and agency involvement that can help elicit stakeholder concerns and reach consensus.
The NEPA process will begin more than five years after the end of the PEL Study.	Maybe	The decision to initiate PEL will need more context in this case. Read more to find how best to answer this question.
Another type of study presents a more efficient way to develop the needed information. Studies may include traffic study, existing conditions report, or similar products.	⊘	The time and cost to conduct a PEL Study would add no significant benefit.
Planning studies have identified solutions to address the transportation problem.	⊘	PEL is not needed to clarify the need or best solution.
Project has final design, right of way acquisition, and/or construction funding.	⊘	Planning has been completed in this case.
Intent to use a study to limit NEPA requirements or to change the NEPA class of action (e.g., prepare a Categorical Exclusion when an environmental assessment is required).	⊘	PEL is not a substitute for meeting NEPA requirements.

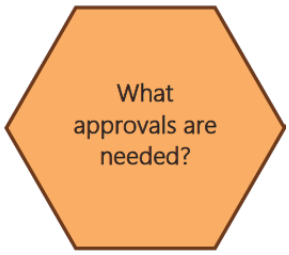
EA= Environmental Assessment; EIS = Environmental Impact Statement; NEPA = National Environmental Policy Act

INITIATING A PEL STUDY

Because PEL is a collaborative process between staff in system planning and project development, it is necessary to engage decision-makers in these areas before beginning. This engagement creates a common understanding of how PEL provides value in the specific context. It also initiates the more-detailed process of identifying resources—both staffing and funding—that are essential to conducting a PEL Study. The following sections describe an initiation process that is adaptable to different contexts. The primary consideration in initiating PEL is that it does not occur without agreements and buy-in right from the start. The entire process will require this level of collaboration, so it is best to start with a high degree of support and coordination.

Chapter 3 has more information on roles and responsibilities for PEL participants. Refer to this information to help identify whom to engage from planning and project development.

APPROVALS AND AGREEMENTS



After Caltrans staff have identified the benefit of using PEL to address a transportation problem and the criteria outlined above support this decision, approval is necessary. A formal signoff by a high-level of authority should not be needed in most cases; however, presenting the rationale and approach for the PEL Study to District leadership is a best practice and essential for true buy-in. System planning has many different groups and responsibilities in both Caltrans Headquarters and the Districts. To identify where to start, consider the following key questions:

- Who will assist in engaging the right local/regional participants?
- Who can approve planning funds for use in the PEL Study?
- Who understands corridor planning and other planning studies?
- Who may know of any previous planning studies, initiatives, and stakeholder interest?
- Is there a travel demand model for the area and, if so, who can access it?
- If there is no travel demand model, who will conduct the necessary traffic analyses?

For project development, approval starts with District leadership and mandatory check-in points with the Division of Environmental Analysis (DEA) Headquarters Coordinator. California has been granted decision-making authority for NEPA under a 23 U.S.C. 327 Memorandum of Understanding with FHWA, commonly referred to as NEPA Assignment. The DEA Headquarters Coordinator therefore serves in the FHWA role for the four mandatory check-in points: determining the reason for the PEL Study and the desired outcomes, methodology and purpose and need, evaluating and screening alternatives, and finalizing the PEL Study document. More detail is provided in Chapter 3, *PEL Study Process and Requirements*, under *Coordination with Caltrans Division of Environmental Analysis*.

There may be multiple levels of agreement to obtain in the approvals and agreements stage because Caltrans environmental practitioners are located in the Districts as well as in Headquarters. Key questions for identifying District decision-makers are:

- What geography represents the likely study area for NEPA?
- Which resource agencies should be engaged? Are there Caltrans liaisons in these agencies?
- Are there related transportation improvement projects near or associated with the proposed project? Are these projects active, funded, or anticipated?
- Who can identify and approve environmental funding for the PEL Study?

These key questions and input from staff in both planning and project development will clarify how to target the necessary approvals and agreements to proceed. Approvals and resource needs are strongly related and may require some iteration across the Divisions.

POTENTIAL FUNDING FOR PEL

Identifying funding for a PEL Study will be one of the most critical steps in getting started. Transportation funding programs typically have criteria for use; some are highly flexible, others are not. For PEL, the funding need will encompass activities that are typically associated with system planning as well as those that are usually associated with NEPA. At the beginning, the needs will be common to those within a corridor study: data collection, stakeholder meetings, and staff hours for planning and engagement. However, the intent to identify and evaluate alternative solutions will likely require preliminary design. This moves well beyond a typical corridor study need but is essential for NEPA. For this reason, it will likely take a mix of funding sources to completely cover the funding demands of a PEL Study.

Within Caltrans, PEL resources are currently limited and available through the Division of Transportation Planning (DOTP) Office of Air Quality and Climate Change. DOTP's *Environmental Planning Funding Guidelines* (April 2022) identifies specific requirements for use of this funding. The intent of this guidance is to "provide District planning and environmental staff with a clear understanding of what [PEL] activities, including Advance Mitigation, can be supported with planning resources." Approval for these funds requires coordination with planning staff in the District and approval by the District Planning Deputy. As previously identified, the approval and funding for PEL is likely to be an iterative process. These planning funds are specifically targeted to PEL activities and can be used "to expedite the environmental phase and better support project level decision-making."[8] In addition to PEL funding, the Office of Air Quality and Climate Change can assist in connecting to the DOTP Office of Strategic Investment Planning for other potential funding.

[8] *Environmental Planning Funding Guidelines*, DOTP, April 2022, page 3.

LEARN MORE

IS FUNDING A PEL STUDY TOO MUCH OF A CHALLENGE?

PEL has the potential to significantly reduce the NEPA timeline. However, the PEL process requires that agency staff learn about transportation planning and environmental review processes they may be unfamiliar with, front-loads some of the costs of environmental review, and requires building and ongoing management of new or more-frequent working relationships. This upfront effort is time well spent:

- When agency staff learn about transportation planning and/or the environmental review process, that knowledge and expertise can be used on other projects, whether or not they undertake a PEL process. Therefore, the education can be worth the time investment for both the immediate PEL process and for future endeavors.
- Although some costs may be front-loaded, there should be related decreases in cost during the environmental review phase. When multiple projects come out of a PEL Study, the cost savings are likely to increase with each subsequent project that undergoes environmental review.
- Strong working relationships with other agencies and with stakeholders can benefit other projects involving the same agencies and stakeholders. On complex projects with multiple jurisdictions, agencies with permitting oversight, resources agencies, and stakeholders especially, a strong working relationship can be invaluable for collaboration. Agencies and stakeholders can develop a detailed understanding of the project at hand, laying the groundwork for effective continued agency coordination during environmental review.

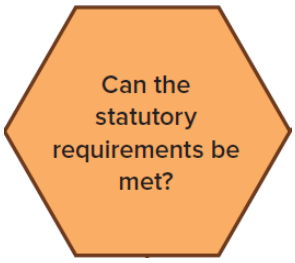
See PEL Benefits: Measuring the Benefits of Planning and Environmental Linkages (PEL), FHWA, October 2015.

Transportation Funding Sources to Consider for PEL	
Funding Resource	**Description**
State Planning and Research (SP&R)	SP&R funds are made available to state DOTs from an ongoing federal program. As implied, the use of these funds is only for planning, research, and within specific guidelines, technology research and development. Although each state decides the guidelines for using SP&R funding, the management of these funds has requirements from FHWA and from Caltrans.
Congestion Mitigation and Air Quality (CMAQ)	The CMAQ program is a flexible funding source that is maintained and enhanced under transportation reauthorizations. The funding is apportioned to the states as a lump sum for distribution to air quality nonattainment and maintenance areas. A state may apportion up to 50 percent of CMAQ funding to other federal-aid programs. For the list of potential opportunities, see *Transferability to and from Other Federal-aid Apportioned Programs.*
Metropolitan Planning Organization (MPO) Planning Funds	When the potential project is within an MPO boundary, there is an opportunity to partner on funding. The MPO may conduct the initial steps within the PEL Study using federal or state allocated funding. This represents an in-kind partnership with Caltrans that may require a memorandum of understanding or other agreements. Larger MPOs (population of more than 200,000) receive a direct allocation from the Surface Transportation Block Grant Program. See *Revisions to Implementation Guidance for STBG*.
Federal and State Planning Grant Programs	Grant programs are typically established for specific purposes based on policy interests, may have narrow applicability, or be available for a short amount of time. The Caltrans DOTP Office of Strategic Investment Planning and district investment planning staff should be consulted for more information. In July 2022 the PROTECT Formula Program was established to help communities protect transportation infrastructure from climate change. Funding on a state-by-state basis is available between 2022 and 2026. For California this may mean as much as $631,410,543 under the 2021 Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Bill). For more information, see *PROTECT Program Fact Sheets*.
Performance Management Considerations	Within the transportation performance management requirements is the expectation that internal coordination across program areas will occur. This is explicit in the planning regulations for coordination with asset management, safety, systems operations and management, and transit. These program areas have unique funding sources that also have restrictions. When the PEL Study need is related to any of these areas, it is useful to reach out to staff that may have an interest in collaborating. In particular, the Highway Safety Improvement Program (HSIP) should be considered whenever there is a safety need for the proposed study area.

CONSIDERING STATUTORY PEL

Before initiating the PEL Study that has been approved and funded, there is one additional decision to make. By regulation, statute, and guidance, PEL is intended to expedite project delivery by allowing planning decisions and products to move directly into NEPA. This can be accomplished in either of two ways: (1) "incorporating by reference" into NEPA and supporting documentation or (2) by "adopting" specific PEL outcomes directly in the NEPA process.

The act of incorporating PEL outcomes into NEPA by reference is a broad permission to use any planning product or decision—from traffic forecasts to recommendations on alternatives—to inform NEPA decision-making. This approach has no specific requirements or limitations. To "adopt" outcomes of a PEL process directly into NEPA involves a list of 10 requirements as identified in 23 U.S.C. 168 (also referred to as "section 168" in this Guidebook):



Planning products must meet 10 conditions if they are to be adopted following the statutory PEL requirements:

1. The planning product was developed through a planning process conducted pursuant to applicable federal law.
2. The planning product was developed in consultation with appropriate federal and state resource agencies and Indian Tribes.
3. The planning process included broad multidisciplinary consideration of system-level or corridor-wide transportation needs and potential effects, including effects on the human and natural environment.
4. The planning process included public notice that the planning products produced in the planning process may be adopted during a subsequent environmental review process in accordance with this section.
5. During the environmental review process, the relevant agency has made the planning documents available for public review and comment by members of the public and federal, state, local, and tribal governments that may have an interest in the proposed project; provided notice of the intention of the relevant agency to adopt or incorporate by reference the planning product; and considered any resulting comments.
6. There is no significant new information or new circumstance that has a reasonable likelihood of affecting the continued validity or appropriateness of the planning product.
7. The planning product has a rational basis and is based on reliable and reasonably current data and reasonable and scientifically acceptable methodologies.

8. The planning product is documented in sufficient detail to support the decision or the results of the analysis and to meet requirements for use of the information in the environmental review process.
9. The planning product is appropriate for adoption or incorporation by reference and use in the environmental review process for the project and is incorporated in accordance with, and is sufficient to meet the requirements of, NEPA.
10. The planning product was approved within the five-year period ending on the date on which the information is adopted or incorporated by reference. (See footnote 5, above, for additional detail.)

This approach is sometimes referred to as "statutory PEL." Caltrans followed the statutory requirements for the SR 37 PEL Study, previously referenced. In order to gain the most streamlining impact of PEL, it is best to start with this statutory approach and meet the conditions. However, if at any point, this appears not to be possible, everything that has been accomplished remains valid and useful under the "incorporate by reference" approach. **This means that nothing done within PEL should be lost, discarded, or abandoned.**

Considering statutory PEL is important before initiating the PEL Study because the justification for applying PEL may be impacted by this decision. For example, if the need is urgent, but funding to begin NEPA is uncertain, it is reasonable to consider whether PEL is still the right approach. PEL involves many participants and requires significant engagement on the part of everyone involved. If there is a more expedient way to meet this urgent need, it should be identified and considered instead of PEL.

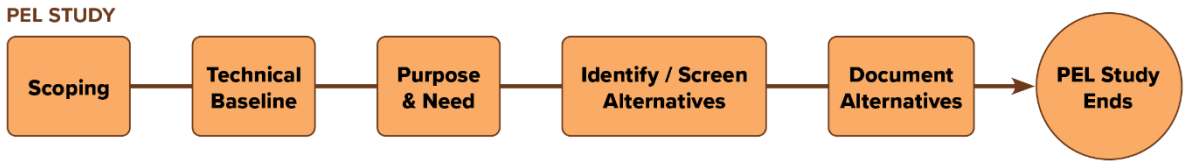
In the next chapter, there is more information on statutory PEL along with roles and responsibilities of all PEL Study participants. Use this more-detailed information to decide how to identify the planning and project development balance in leading the PEL Study. Leadership may shift over the course of the study, but the connections to long-range transportation planning and the project development process must remain. Ultimately, the PEL Study will inform future planning decisions in addition to NEPA.

CHAPTER HIGHLIGHTS

- *How to use the PEL Questionnaire to guide PEL implementation*
- *Roles and responsibilities of PEL Study participants*
- *Applying the PEL Study process steps*
- *Documentation that informs NEPA and CEQA and coordinates with other planning studies*

3 PEL Study Process and Requirements

This chapter provides a step-by-step guide on how to conduct a PEL Study once it is initiated. The foundation for this process is a combination of national guidance and best practices. The PEL Study process outlined here is based on the statutory requirements for PEL as described in the previous chapter, with the intent to conduct a PEL Study that results in development of a project and eventual environmental review under NEPA and CEQA. However, if the full statutory requirements cannot be met, the option to use PEL products as an input to NEPA and CEQA under the incorporate-by-reference provision is available and will provide valuable information to a subsequent environmental review. The PEL Study process is also applicable to policy and program development. The five steps in the figure below outline the Caltrans PEL Study process with a basic description of what happens at each step. In the following sections, more detailed explanation and recommendations are provided. Individual steps are fully described in this chapter.



The intent of a PEL Study is to facilitate and streamline a subsequent NEPA process. In California, projects of the scale that would benefit from a PEL Study will almost certainly also require environmental review under CEQA. Therefore, while PEL legislation and guidance are focused on NEPA review, this guidebook recognizes that CEQA compliance will also be needed in most cases. This chapter therefore incorporates practices directed at CEQA compliance.

THE PEL QUESTIONNAIRE

FHWA developed a PEL Questionnaire as a tool for practitioners to identify specific considerations to implement a PEL approach. This tool has been augmented with information over time that is readily accessible on the FHWA website. The PEL process outlined here relies on a similar questionnaire with California-specific requirements and considerations. The PEL Questionnaire in Appendix 3 aligns with the process described here.

The best use of the PEL Questionnaire is to review all the information at the outset of a PEL Study in order to guide initial decision-making. As the study progresses, checking in with the PEL Questionnaire is a good reminder of upcoming items to consider. The PEL Questionnaire is a starting point and can be supplemented with additional questions or explanations to reflect the unique interests of individual studies. While the PEL Questionnaire is not required, if it is used, it should be included in the documentation that is transferred to NEPA and CEQA documents as well as to related corridor or feasibility studies. The completed PEL Questionnaire quickly identifies what was considered and accomplished by the PEL Study.

ROLES AND RESPONSIBILITIES

Authorities within the PEL process can come from many groups within Caltrans. The basic interface in PEL is between system planning and project development; however, other divisions, offices, or groups may have significant roles based on the needs of the study. The makeup of the team is ultimately based on the desired outcomes of the PEL Study but must include both DOTP and DEA participation. The table below outlines roles for Caltrans staff and other state agencies but begins with Caltrans leadership necessary to approve and obtain funding a PEL Study. Note that, while certain participants in PEL, such as Caltrans DEA, have requirements such as deciding whether planning products are sufficient for use in NEPA rules, many participants in PEL have flexibility in the range of what they are responsible for. As described in Chapter 2, there are criteria that must be met before initiating PEL to ensure agency support and increase the likelihood of a successful outcome. Once a PEL Study is at the initiation stage, these roles and responsibilities tables can be referenced when actually starting the PEL Study and may be useful to help participants clearly understand their roles.

Roles and Responsibilities for Caltrans Staff and other State Agencies

State Agency/Division/Group	Role	Responsibilities
Caltrans District Deputy Director (or designee) for Transportation Planning and Environmental	▪ The location of the proposed PEL Study will determine the specific District(s) involved. The Deputy Directors will identify specific staff for the PEL Study from both DOTP and DEA.	▪ Identify PEL Study leadership. ▪ Recommend local partner/stakeholders to include in a PEL Study. ▪ Advise on other District activities that may impact the PEL Study. ▪ Ensure that local elected officials in non-metropolitan areas are aware of the PEL Study and are encouraged to participate.
Caltrans DOTP	▪ Caltrans DOTP maintains one source of PEL funding that is approved on an individual corridor basis. DOTP should be kept informed of PEL Study progress and outcomes.	▪ Approve or deny the request for PEL funding through the Office of Air Quality and Climate Change. ▪ Maintain awareness of individual approved PEL Studies related to a corridor study that is anticipated or currently in development. ▪ Interface with FHWA Planning, as needed.
Caltrans DEA	▪ Caltrans DEA Headquarters Coordinator has approval authority. Per NEPA Assignment, DEA acts in the FHWA Environmental role and is the approval authority for moving PEL products into NEPA. DEA must be kept informed and will provide approvals throughout the PEL Study.	▪ Review the PEL Questionnaire and Study Reports. ▪ Decide when planning products are ready for NEPA review.
Caltrans PEL Study Team Lead or Co-leads	▪ The specific membership of the Caltrans PEL Study team will depend on the scope and desired products. This team includes Caltrans District Staff and consultants and may include Headquarters staff (where applicable).	▪ Ensure all PEL requirements are identified and documented. ▪ Develop the PEL Questionnaire. ▪ Request approvals from other authorities (Caltrans or other), when necessary.

State Agency/Division/Group	Role	Responsibilities
		▪ Incorporate information, studies, or analyses provided by MPOs in designated planning areas. ▪ Ensure documentation of each product or decision is adequate to use in NEPA/CEQA.
Caltrans Project Manager and Project Delivery (e.g., Design, Right of Way, Traffic)	▪ Participate in the PEL Study as a member of the PEL Study team or provide insight to Caltrans Project Manager to inform the PEL Study.	▪ Provide insight related to the specific project, feasibility, and constraints. ▪ Coordinate flow of information between project team and PEL Study team in the context of their role to oversee and monitor all elements of the project development process for a specific project, including the timely and on-budget delivery of the project.
California agencies with decision-making authority or jurisdiction over affected resources are critical to PEL. Examples include California Department of Fish and Wildlife, Regional Water Quality Control Boards, California State Historic Preservation Officer, Tahoe Regional Planning Agency (District 3), and the Bay Conservation and Development Commission (District 4).	▪ For a PEL Study to expedite project delivery, the agencies that protect these resources (and issue permits needed prior to construction) must be advised on the intent of the PEL Study with respect to NEPA/CEQA and invited to participate.	▪ Identify priority resources in the study area and data required to adequately address the needs. ▪ Assist the transition into NEPA/CEQA, consistent with applicable federal laws and regulations. ▪ Potentially identify protocols for determining and mitigating impacts to resources during the PEL Study. ▪ Provide advice/feedback on prospective permitting approaches associated with PEL Alternatives.

CEQA = California Environmental Quality Act; DEA = Division of Environmental Analysis; DOTP = Division of Transportation Planning; FHWA = Federal Highway Administration; NEPA = National Environmental Policy Act

Roles and Responsibilities for Federal Agencies

Federal Agency/Division/Group	Role	Responsibilities
FHWA, California Division	▪ The FHWA Division Director, Planning and Environment (or designee) has oversight authority for regulated transportation processes. ▪ FHWA Planning: As a planning process, the PEL Study must meet federal regulations and planning requirements. Participation as an observer is required. ▪ FHWA Environment: Because Caltrans has NEPA Assignment, FHWA may only participate as an observer in the PEL Study process.	▪ FHWA Planning and Environment staff should be included in all correspondence and invited to all PEL Study meetings as optional attendees. ▪ FHWA planning staff may act in an advisory role, if requested. ▪ FHWA participation ensures that the 10 requirements of statutory PEL are met.
Federal Resource Agencies. Examples include U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Coast Guard, U.S. Army Corps of Engineers, and National Marine Fisheries Service.	▪ Federal agencies with decision-making authority or jurisdiction over affected resources are critical to PEL. For a PEL Study to expedite project delivery, federal agencies that protect these resources (and ultimately issue permits needed to construct) must be advised on the intent of the PEL Study with respect to NEPA/CEQA and invited to participate. ▪ If a federal agency wishes to use a planning product from the PEL process, the agency must concur that the ten PEL statutory conditions (23 USC section 168(d)) have been met.	Provide input on individual resources. Specifically: ▪ Identify priority resources in the study area and data required to adequately address the needs. ▪ Ensure the data used for decision-making is appropriate for NEPA decisions. ▪ Assist the transition into NEPA/CEQA, consistent with applicable federal laws and regulations. ▪ Potentially identify protocols for determining and mitigating impacts to resources during the PEL Study; offer feedback/advice on prospective permitting approaches associated with PEL alternatives.

CEQA = California Environmental Quality Act; FHWA = Federal Highway Administration; NEPA = National Environmental Policy Act; USC = United States Code

Roles and Responsibilities for Local Stakeholders

Agency/Division/Group	Role	Responsibilities
MPOs	▪ MPOs are federally regulated planning partners to Caltrans. The regional long-range transportation plan or other planning documents may provide data for the PEL Study including public outreach and solutions previously identified.	▪ Provide background and context for the proposed project. ▪ Provide analysis or other data from previous planning studies. ▪ Identify solutions that have been identified or eliminated. ▪ Support public and stakeholder outreach within the region.
Tribal Governments	▪ Both statute (23 USC section 168) and regulations (23 CFR section 450.212) specify a participatory role for Tribal governments in the PEL process. ▪ Tribal Governments (Tribes) are a key stakeholder in planning and project development and have a similar role in PEL. Note: PEL is not considered government-to-government consultation. Any requests for such consultation should be relayed to the appropriate District staff.	▪ Tribal governments offer expertise about potential resources and can provide valuable input on planning products. Tribes must be invited to participate and continuously engaged in decision-making.
Non-MPO Agencies and Jurisdictions	▪ Examples include local elected officials, local planning agencies, council of governments, and congestion management agencies.	▪ Ensure that local elected officials in non-metropolitan areas are aware of the PEL Study ▪ Provide local data and perspectives as input to the PEL process and outcomes.

Agency/Division/Group	Role	Responsibilities
Stakeholders	▪ This broad category of interested parties can include specific non-profits, community groups, or others. ▪ Any person, group, or agency interested in or affected by the PEL Study or its outcomes should be aware of a PEL Study in process.	▪ No specific responsibilities. May participate based on interest.
Public	▪ Members of the public include individuals, groups, and non-governmental organizations ▪ PEL has an outreach component similar to transportation planning and NEPA. However, in a statutory PEL process, there is a requirement to notify the public similar to the Notice of Intent for NEPA.	▪ No specific responsibilities. May participate based on interest.

CFR = Code of Federal Regulations; DEA = Division of Environmental Analysis; MPO = Metropolitan Planning Organization; NEPA = National Environmental Policy Act; USC = United States Code

PEL CONNECTED TO OTHER PLANS AND STUDIES

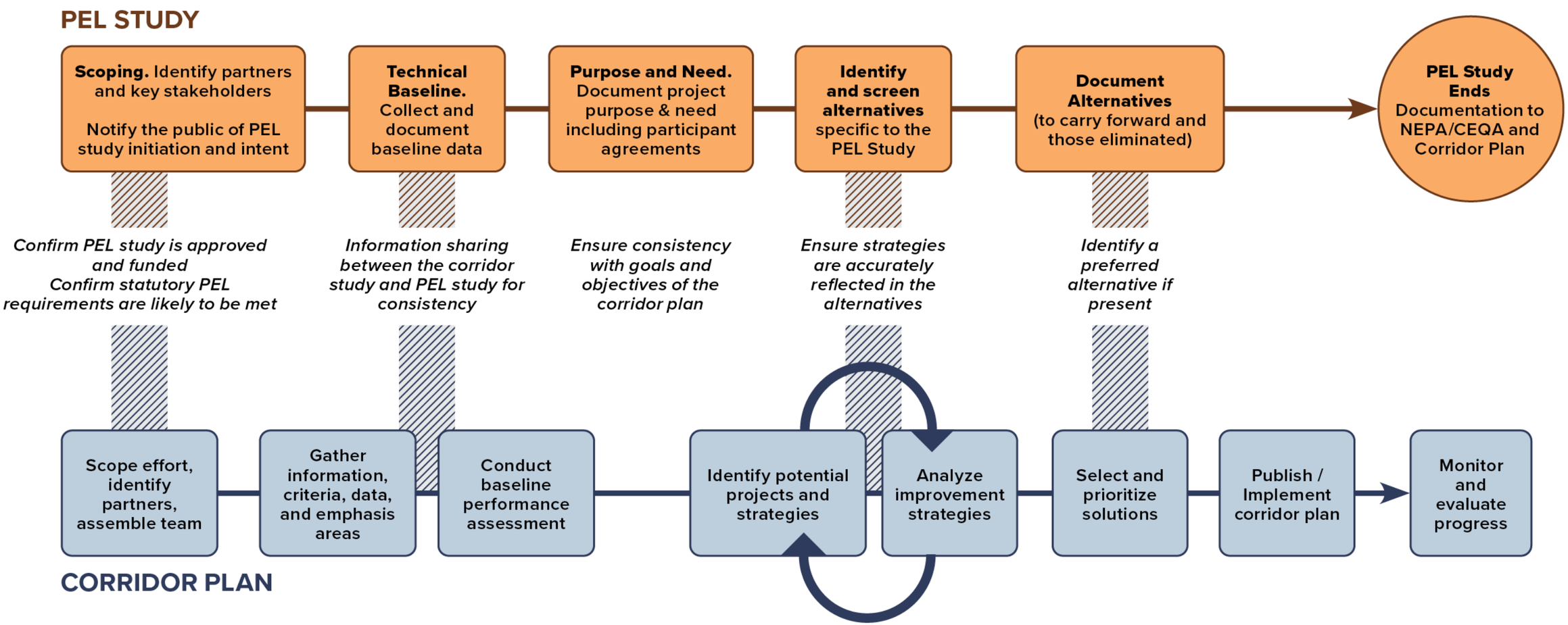
Before implementing the steps of the PEL process, it may be helpful to understand how a PEL Study interfaces with the Caltrans planning process. A PEL Study may be used at any time prior to NEPA/CEQA when the criteria for initiating a study appear reasonable. The PEL approach may also apply to any type or length of roadway, bridge, transit, or multimodal transportation solution. This flexibility is highly useful but requires additional consideration to maintain a connection to decision-making at a regional, corridor, or subarea level. Agreements and decisions within a PEL Study are usually more specific than many planning studies. As a result, the outcomes have the potential to impact the evaluation of solutions more significantly than at a typical planning scale.

Planning context in statewide and regional plans serve as the broader basis of the PEL Study development as described previously in relation to Appendix A to 23 CFR Part 450. Decisions contained in transportation planning documents can be carried forward in PEL studies and, eventually, environmental documents. The PEL Study team should review relevant plans in the study area, such as jurisdictional comprehensive plans; local and regional transporation plans; corridor plans and subarea studies; land use and special use plans (e.g., parks and greenways); and modal plans for transit, bicycle, and pedestrian transportation.

Caltrans has adopted a corridor planning approach in all Districts with a supporting eight-step process. Because this approach is used broadly, the connection between the Caltrans Corridor Plan and a PEL Study is important to consider. There are at least three potential ways in which corridor planning and a PEL Study may relate. As described below, each relationship will have unique considerations in the PEL Study, but the coordination between the two studies is the same.

- **The corridor planning study and the PEL Study are initiated concurrently.** The SR 37 PEL Study, previously referenced, is an example of this relationship.
- **The PEL Study precedes or follows a corridor planning study.** In either case, there may be an interest in advancing a section of the corridor to meet an urgent need.
- **The PEL Study examines only a section of the larger corridor.** Longer corridors that change significantly across the full length may have a specific area that can benefit from a PEL Study.

The diagram below illustrates the specific connections between the Caltrans Corridor Planning process and the Caltrans PEL Study process. The descriptions between individual steps illustrate the connections. **However, there is no time requirement implied between these two processes.** The essential links between the processes are the corridor plan goals and objectives, the PEL Study purpose and need, screening and evaluation of alternatives and strategies, and the outcomes of both. Both processes are responsible for ensuring these connections so that long-range planning decisions, data, and analyses represent the intended outcomes.


PEL STUDY
Scoping. Identify partners and key stakeholders
Notify the public of PEL study initiation and intent
Technical Baseline. Collect and document baseline data
Purpose and Need. Document project purpose & need including participant agreements
Identify and screen alternatives specific to the PEL Study
Document Alternatives (to carry forward and those eliminated)
PEL Study Ends Documentation to NEPA/CEQA and Corridor Plan
Confirm PEL study is approved and funded
Confirm statutory PEL requirements are likely to be met
Information sharing between the corridor study and PEL study for consistency
Ensure consistency with goals and objectives of the corridor plan
Ensure strategies are accurately reflected in the alternatives
Identify a preferred alternative if present
Scope effort, identify partners, assemble team
Gather information, criteria, data, and emphasis areas
Conduct baseline performance assessment
Identify potential projects and strategies
Analyze improvement strategies
Select and prioritize solutions
Publish / Implement corridor plan
Monitor and evaluate progress
CORRIDOR PLAN

The definition of the study area is also an iterative process as part of definition of the purpose and need statement. Study scopes should be identified based on the initial analysis of independent utility and logical termini,[9] which will inform the resources to be evaluated as part of the study. The project study area can be refined as the purpose and need statement is developed.

The travel demand model, for those studies using one to make forecasts about future transportation conditions, also informs the need component of the purpose and need statement. The travel demand model includes land uses from the MPO's traffic model and can be supplemented with local information if there have been changes that are needed to update the transportation demand model.

The level of detail and definition within the PEL Study purpose and need statement is flexible and highly dependent on the intended outcome of the study. Some PEL Study examples from other states include only a general vision and broad description of needs, while others contain a specific purpose and need statement for localized issues. ***The purpose and need statement will be crafted to meet the needs of the PEL Study*. Importantly, the purpose and need statement often serves as the first level of alternatives screening, wherein alternatives that do not meet the purpose and need are eliminated.** The more detailed the purpose and need statement is, the more likely that it can be adopted in NEPA as written. The option to incorporate by reference will work in other instances.

A PEL Study may also define goals and objectives or attach to those from another planning process (corridor, regional, or statewide). Goals and objectives may include non-transportation components and emphasize issues to be addressed beyond the purpose and need transportation issue. These can cover community concerns and environmental objectives. And, as noted below, the related definition of objectives can help inform subsequent CEQA review.

HOW TO CONDUCT A PEL STUDY

This section describes how to conduct a PEL Study, correlating with the steps in the diagram above. At the outset, review of the PEL Questionnaire is strongly encouraged to select what is or is not appropriate for this study. The PEL Questionnaire may be used as a point of reference throughout the PEL Study. Appendix 3 has examples of PEL from other states that demonstrate potential reporting outcomes of a PEL Study; keeping the potential outcomes in mind can help Caltrans implement the steps of the PEL process.

[9] Independent utility is defined as being "usable and . . . a reasonable expenditure even if no additional transportation improvements in the area are made" (23 CFR § 771.111(f)(2)). "Logical termini for project development are defined as (1) rational end points for a transportation improvement, and (2) rational end points for a review of the environmental impacts," per FHWA's "The Development of Logical Project Termini" (FHWA 1993).

PEL STEP 1

PEL STUDY STEP 1: SCOPE THE PEL STUDY

Scoping for a PEL Study is similar to the start of any transportation planning or project development study. This step establishes the context for the proposed improvements; documents what is known and unknown about the study area and transportation needs; and identifies the participants necessary to make decisions or reach consensus on the planning products that will inform NEPA and CEQA. Refer to the PEL Questionnaire Background, Methodology, and Coordination sections for key considerations that start during scoping for the PEL Study.

Create a PEL Study Statement of Purpose

The PEL Study team should identify the purpose for conducting the PEL Study, such as identifying a purpose and need or screening alternatives. Creating a PEL Study statement of purpose is a recommended practice to keep the study appropriately defined. Participants may change over time, and the PEL Study statement of purpose is valuable to new participants' understanding and the PEL Study continuity. In addition, the PEL Study statement of purpose may provide a means to prioritize activities within the study prior to establishing the potential project purpose and need.

PEL PRACTICE TIPS
PEL Study Purpose

Cost is often a key factor in determining the feasibility of a project. Ideally, a PEL Study can yield sufficient project design information to make informed estimates about project cost, while the PEL analysis itself can help Caltrans better understand and estimate environmental mitigation costs.

Identify Prior Relevant Studies

The PEL Study team should collect any prior studies to determine what work has been done in the area. Activities to initiate a PEL Study, as described in Chapter 2, provide the basis for the PEL Study, identify study lead(s), and suggest potential partners and stakeholders to engage. However, there are likely previous planning studies or other documents that provide a larger understanding and should be considered. Local comprehensive or land use plans, MPO plans and studies, related projects or studies within the Caltrans District, and any local understanding that has been shared or documented is a starting point for scoping the PEL Study.

Identify Environmental Resources

Another input to scoping is a list of environmental resources to consider. Caltrans has access to significant in-house and other materials that can be used to identify environmental resources. Geographic information systems (GIS) layers (e.g., National Wetlands Inventory data, study area infrastructure data) are a key source for initial screening. This information will also support early involvement of state and federal resource agencies, which can vet and augment Caltrans' in-house information. With this information,

the appropriate resource agency participants will become clear. See the resource agency list of potential participants to consider which agencies should be included in this PEL Study.

Gather Partner, Stakeholder, and Agency Input

Within a PEL Study, participation is essential for success. Planning studies commonly have strong partner, public, and stakeholder participation (including MPOs and Regional Transportation Planning Agencies), while NEPA and CEQA have strong resource agency participation and provide information to the public for comment. In a PEL Study, all of these participants will be contacted at the outset, creating a broad group of participants that has various needs for information and engagement. Input from partners is vital, and input from partners and stakeholders should help with consensus around PEL Study outcomes. It also helps foster ongoing relationships with stakeholders.

PEL PRACTICE TIPS
Environmental Resources

The PEL Study process should not be so in depth that it results in a document that looks like a NEPA study. The PEL process is meant to inform decision-making at a higher level and to feed into future actions. Having too much detail in the PEL Study can create confusion or duplication with later work.

The statutory PEL requirement for engaging the public is a benefit of the PEL approach. For the public, the long-range transportation planning process may seem too distant to matter. However, waiting to engage at a later date can result in obtaining input only when project development is imminent, so that their concerns are captured too late to make a difference. A PEL Study is specific enough to consider public interests and early enough to educate the public about consequences of solutions. The PEL approach may build trust with the public by reflecting their input and carrying their interests on to NEPA and CEQA. The benefit grows over time as other transportation improvements are considered.

While each study is different, the table below is a starting point for identifying and organizing types of participants. Refer back to the roles table for guidance on responsibilities. Consistent and meaningful stakeholder discussion can create a shared vision, address challenging issues, and create consensus on outcomes. Public and agency involvement is ongoing throughout the PEL Study process but discussed mainly in this section of the PEL Study Guidebook for organizational purposes.

Note that the PEL Study stakeholder and agency involvement is not meant to substitute for consultation or public involvement requirements in other laws and regulations. Public and agency involvement must also adhere to applicable planning law and regulations (e.g., 23 CFR sections 450.210 and 450.316). Additionally, agencies and stakeholders may also choose not to participate in the PEL process because participation is not mandatory. In this

case, PEL products can still be used in NEPA, but more coordination will be required with non-participating agencies during NEPA.

Participant Groups	Technical or Informational Role	Description
Resource Agencies	Technical role with data to share and/or support	State and federal resource agencies have individual interests but will be participants during NEPA and CEQA. Because the agencies have their own regulatory and technical requirements, including for permits ultimately needed for project delivery, it can be helpful to hold some separate resource agency-specific meetings.
MPOs	Technical role with background, context, and technical information	Within an MPO region, the participation of MPO staff is essential. This is a unique partner with the ability to contribute resources and with a strong role in decision-making. Local jurisdictions may be represented by the MPO or choose to participate also.
Tribal Nations	Informational and informal consulting role to express interests/concerns and to be informed of activities, decisions, and supporting explanations, and to provide information to support alternatives design and evaluation	This includes federally recognized tribes and tribes as defined under Assembly Bill 52 (Native American Tribe located in California that is on the contact list maintained by the Native American Heritage Commission, Public Resources Code section 21073).
Stakeholders (e.g., Regional Transportation Planning Agencies, local jurisdictions, other agencies)	Informational role to express interests/concerns and to be informed of activities, decisions, and supporting explanations	Non-profit organizations or groups with a special interest in the study can be represented in the participant list. It may be useful to have some stakeholder-only meetings so their concerns can be the focus. Other state and local agencies, such as congestion management agencies, should be considered based on the specific context of the study.
Public	Informational role to be aware of the study and its intent and ongoing progress updates	Statutory PEL requires public notification at the outset of the PEL Study. Ongoing communication with the public through a website, newsletter, or other means is a best practice.

CEQA=California Environmental Quality Act; NEPA = National Environmental Policy Act; MPO = Metropolitan Transportation Organization

A first step in engaging agencies and the public will likely be education. Educate agencies and stakeholders about PEL because it is likely that they are unfamiliar with the concept. Describe to agencies how PEL is linked to NEPA and CEQA and how it may inform subsequent decisions and permitting so that they are motivated to be engaged in the PEL process. Additionally, if there are other short-term projects in the same project area, spend time to distinguish between those and the transportation issue to be evaluated during the PEL process.

The ten requirements associated with statutory PEL, previously provided, illustrate the importance of the public in any PEL Study. To meet the statutory PEL requirements, the public must be notified during scoping. This notification must identify that a PEL Study has been initiated and describe the intent to move decisions directly into NEPA and CEQA. A means for the public to remain aware of decisions and provide input to the process is also needed. It is essential to document this notification and the process established to maintain communication with the public.

For the broad engagement required by a PEL Study, it may be important to establish a coordination framework and communication protocols during scoping. Design a public outreach strategy, including focus groups and individual meetings, that is appropriate for the transportation issue at hand. Target an array of stakeholders, such as Tribes, transportation advocates, businesses, residents, and property owners. As an example, the previously referenced SR 37 PEL Study used a number of individual committees to guide decision making, including Technical Working Groups, a Stakeholder Working Group, and Resource Agency Partners group. As more information and data is gathered in subsequent steps, this structure will facilitate review and decisions. And, although adjustment over time may be necessary, setting participant expectations at the start of the study is essential. Share the intended goals and outcomes of the PEL Study with agencies and stakeholders and reiterate the goals at key points throughout the study.

PEL PRACTICE TIPS Stakeholder and Agency Input

- Conduct outreach and solicit input in a variety of forms, such as online maps and social media outreach. Consider whether online meetings or in-person meetings will garner more attendance.
- Center agency coordination on report review and comment.
- Consider having separate meetings with agencies so they can provide specific technical expertise and input.
- Periodically check in with stakeholders individually, particularly resource agency partners, regarding any comments or concerns.
- Avoid stakeholder burnout by being intentional with meetings held at key decision points.
- Be clear about the likely schedule for the PEL Study and how long it takes, in addition to how long the environmental review can take, so that it is clear to stakeholders where Caltrans is in the overall project process.

Methods used for stakeholder outreach should be determined as appropriate for the context, study area, and stakeholders involved. The table below illustrates broad categories of involvement methods.

Involvement Methods

Method	Details
Informational outreach 	Share information with stakeholders. Examples of informational outreach include small group meetings, public meetings, news releases, and websites. These can be appropriate throughout the PEL process to provide a one-way flow of information about the PEL Study.
Data gathering 	Caltrans should gather information within agency control or access and work with agencies and stakeholders to vet that information. Agencies can also provide local knowledge or additional information, and stakeholders may have useful input about the data.
Participation opportunities 	Gather specific information and opinions about the project area, purpose and need, alternatives, and environmental resources and impacts. Examples of these are public meetings, small group meetings, and technical working group meetings.

Scope Documentation Requirements

Beginning at scoping, documentation is a key aspect of the PEL Study that must be maintained throughout, rather than trying to catch up at the end. The PEL Questionnaire helps identify the important elements to document. In addition, any discussion that leads to decisions or actions may be valuable context for later steps as well as within the NEPA and CEQA process and should be documented. Documentation of previous studies and alternatives that were dropped from consideration, agreements to participate, stakeholder interests, and other relevant information helps establish systematic documentation that will be essential later.

CEQA Considerations

Determine whether the PEL Study should be prepared to address any needs specific to CEQA. Many of the considerations related to NEPA also apply to CEQA. For example, a PEL Study should not be used as a short-cut around CEQA compliance, and there may be other studies that are more appropriate than PEL to garner the information needed as the foundation of CEQA review.

Include in the scope of work specific actions related to CEQA compliance. Because PEL authorities (e.g., 23 USC section 168) do not contemplate use of PEL planning products for CEQA compliance, outline strategies to ensure that the PEL content still meets federal

statutory and regulatory requirements, and that CEQA-related material does not hinder meeting these requirements.

Consider engaging potential CEQA responsible agencies regarding CEQA compliance needs so that those agencies can provide CEQA-specific input. Do not limit Tribal involvement to federally recognized Tribes; also include California Native American Tribes as defined in Public Resources Code section 21080.3.1. Clarify that consultation under Assembly Bill 52 is separate and distinct from the PEL process.

PEL STEP 2

PEL STUDY STEP 2: ESTABLISH A TECHNICAL BASELINE

All planning studies must establish the baseline conditions, often referred to as "existing conditions." For planning studies, the technical baseline also includes the identified horizon year and any transportation improvements anticipated at that time. During Step 2, the projects, studies, or analyses that were identified during scoping must be organized, reviewed, and considered by participants. Data availability and the scale of this data is a key consideration to prepare for NEPA and CEQA. Questions 7, 8, and 9 in the Appendix 3 PEL Questionnaire are particularly useful at this step.

Existing Conditions Report

The existing transportation system represents how various components exist today, while the future transportation system is the assumed transportation network at least 20 years in the future if all programmed transportation improvements are implemented. Professional judgement and familiarity with the proposed project area inform what sources to consult for information about the transportation system. The existing conditions are documented in the Existing Conditions Report. Details about the transportation system that can be included in this discussion include:

Roadway network. The roadway network should be discussed by regional planning categories: freeway, major regional arterial, principal arterial, and minor arterials. Granular information can include highway lanes, right of way (ROW) and access, safety, traffic volume, trip purposes, signalization, access, interchanges, and roadway features.

Traffic. Travel demand modeling should provide information about level of service (LOS), peak traffic volumes, when intersections are congested, turning movement volumes, and the Travel Rate Index. Additionally, with the current focus on induced vehicle miles traveled (VMT) pursuant to Senate Bill 743, existing trips within the project area will need to be characterized to facilitate eventual evaluation of new trips generated by potential improvements.

Railroads. Railroads include existing and planned freight and passenger rail facilities. Characteristics include location, ROW width, crossings, stations, crossing signalization, safety issues, and schedules. The characterization of railroads informs constraints that can impact alternatives development.

Transit services. Transit services include an overview of transit types, service levels, routes, and frequency. This also includes park-and-ride lots and transit stations that facilitate intermodal travel. The characterization of transit services identifies missing infrastructure and missing intermodal connections that could be included in alternatives.

Bicycle and pedestrian facilities. Information includes location and widths of routes, which can be paths, trails, crosswalks, and lanes. This also includes connections to other transportation facilities. ADA accessibility should be addressed. The characterization of transit services identifies missing infrastructure and missing intermodal connections that could be included in alternatives.

Utilities. Information includes existing and proposed utilities from maps and field review, such as infrastructure for cable, electricity, natural gas, crude products, water, waste, and stormwater (see 23 CFR section 645.105). This identifies utilities that may require relocation or coordination with property owners.

Other projects in the study area. Other transportation and large development projects should be identified in the PEL Study to provide for coordination with nearby project stakeholders and future alternatives and cumulative analyses.

Mitigation at the Planning Scale

Mitigation strategies aim to rectify, reduce, eliminate, or compensate for the potential impact. Mitigation is encouraged in the transportation planning regulations[10] at the statewide and regional planning levels and reflects the resources addressed in the long-range transportation plan rather than project-level impacts. Mitigation at a planning scale will identify the potential environmental impacts of future transportation projects and is considered in consultation with FHWA and/or FTA and the agencies with jurisdiction and special expertise over the resources. Planning regulations identify two ways to consider mitigation: programmatic mitigation and

PEL PRACTICE TIPS Existing Conditions

- Conduct capacity and LOS analyses for various segments to rank importance of improvements.
- Conduct VMT analysis within the project area to determine trip demand and compare induced VMT impacts of improvement.
- Coordinate and reach consensus early on analysis details: including current and future years, analytical techniques, and effectiveness metrics.
- Obtain early stakeholder input on transportation study parameters.
- Consider a standalone traffic analysis report that can be appended to the NEPA document and other documents.

[10] 23 CFR 450 Sections 214, 216, 320, and 324.

discussion of environmental mitigation activities in the long-range transportation plan. In a PEL Study mitigation has two purposes:

- **Define potential planning-level, programmatic mitigation that address impacts on a broader scale than project-level mitigation.** This can include mitigation banking and prioritization of mitigation investments and may offer more efficient and effective measures through long-term planning starting early in the PEL process.
- **Inform mitigation costs and efforts prior to NEPA at the project level.** A strategy for mitigation should be outlined for each alternative, and the PEL Study should also provide a basis for the strategy and a flow chart of the decision process. Additionally, the PEL Study should document the timing of mitigation in terms of project planning and implementation, and the coordination needed, implementation and monitoring, and reasonableness and reliability of mitigation.

Agency and Stakeholder Coordination

Resource agency involvement is an opportunity to reach agreement on the level of detail necessary for decision-making in the PEL Study. Agreements made during this step can enable the discussions during NEPA and CEQA about adequacy in the selection of alternatives. It may also be possible to consider potential mitigation strategies to include in the PEL Study documentation. Agency and stakeholder input can be particularly helpful in defining the technical baseline. Caltrans should gather information within agency control or access (e.g., National Wetlands Inventory data, study area infrastructure data, and any other known information) and rely on agencies and stakeholders only to vet that information and provide local knowledge or additional information, if available, that Caltrans may otherwise not know about or have access to.

Technical Baseline Documentation Requirements

Document coordination with agencies and stakeholders on baseline information and agreement from PEL Study participants that the analysis in later steps can use that data.

CEQA Considerations

The material identified for the PEL Study also serves to inform the CEQA existing conditions report. Caltrans policy is to use VMT to assess transportation impacts under CEQA. Therefore, for situations where CEQA is anticipated, the PEL team should consider generating information about induced VMT in the project area from existing sources.

PEL STEP 3

PEL STUDY STEP 3: IDENTIFY PROJECT PURPOSE AND NEED

The use of "purpose and need" as an identifier in the PEL Study process is the first clear connection to NEPA. Planning studies typically identify problems and needs to describe the underlying transportation deficiency. Under NEPA

regulations and PEL guidance, the purpose and need statement defines the transportation problem and is used to define alternatives that could solve that problem. 40 CFR section 1502.13 states the purpose and need "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." 23 USC section 139(f) helps to guide formulation of purpose and need for a PEL. 23 USC section 139(f) indicates that the purpose and need should contain a clear statement of objectives the proposed action is intended to achieve, which may include: achieving a transportation objective outlined in an applicable statewide or metropolitan transportation plan; supporting land use, economic development, or growth objectives established in applicable federal, state, local, or Tribal plans; and serving national defense, national security, or other national objectives, as established in federal laws, plans, or policies.

Information, data, and analyses for use in the PEL Study were identified and considered in Step 2. In Step 3, the validity of this information to inform the project-level purpose and need must be determined. If land use planning, economic development, and travel demand forecasting information from previous or concurrent studies is available and relevant, this can be used directly to inform purpose and need. If additional information is necessary, the PEL Study team may need to return to Step 2 before proceeding.

FHWA guidance outlines considerations that can help explain the need for the proposed action, such as project status, system linkage, capacity, transportation demand, legislation, social demands or economic development, modal interrelationships, safety, and roadway deficiencies. In California, climate change is highly relevant for considering purpose and need. Consider whether there are any climate-related factors, such as sea level rise, mudslides, and wildfires, that impact the long-term viability of any portion of the transportation system.

Other factors that can be considered include any one or more of the following:

- Will the project connect parts of the transportation system?
- Is there inadequate capacity in the current facility?
- Does the project respond to transportation demand as described in an adopted transportation plan?
- Is there a mandate at the federal, state, or local level?
- Do projected economic or land use changes indicate there is a need for transportation system improvements?
- Is there a need to address an existing or projected safety issue?
- Are there known roadway deficiencies?
- Are there community concerns and environmental objectives that should be addressed (such as equity)?

Appendix A to Part 450 of CFR Title 23 identifies the transportation planning process as the primary source of the project purpose and need. As illustrated below, the transportation planning context is a key input to the PEL Study purpose and need. The purpose and need can include the following from transportation planning:

- Goals and objectives from the transportation planning process
- A general travel corridor or general mode or modes (e.g., highway, transit, or a highway/transit combination) resulting from planning analyses
- A statement from the financial plan for a metropolitan transportation plan that funding for a specific project will require special funding sources (e.g., tools or public-private financing)
- The result of analyses from management systems (e.g., congestion, pavement, bridge, safety)

The definition of the study area and the travel demand model also inform the purpose and need. The definition of the study area is an iterative process as part of definition of the purpose and need statement. Study extents should be identified based on the initial analysis of independent utility and logical termini, which will inform the resources to be evaluated as part of the study. The project study area can be refined as the purpose and need statement is developed. The travel demand model, for those studies using one to make forecasts about future transportation conditions, also informs the need component of the purpose and need statement. The travel demand model includes land uses from the MPO's traffic model and can be supplemented with local information if there have been changes that are needed to update the transportation demand model.

PEL PRACTICE TIPS Purpose and Need

- Consider the purpose and need development to be an iterative process.
- Consider drafting a purpose and need that is as close as possible to the purpose and need for the eventual NEPA document. Use the most-recent available data to identify the project need, and identify data that can be efficiently updated for the NEPA purpose and need.
- Goals and objectives can reflect agency input and concerns.
- Difficulty in determining alternatives screening criteria (Step 4) can indicate that the purpose and need is too general or too specific.

The level of detail and definition within the PEL Study purpose and need statement is flexible and highly dependent on the intended outcome of the study. Some PEL Study examples from other states include only a general vision and broad description of needs, while others contain a specific purpose and need statement for localized issues. The purpose and need statement will be crafted to meet the needs of the PEL Study. The more detailed this is, the more likely that it can be adopted within the NEPA process. The option to incorporate by

reference will work in other instances. Indeed, documentation for the purpose and need is essential to transfer into NEPA. The statement of purpose and need must be supported by the PEL Study participants – particularly the resource agencies – and clearly describe the evaluation of data, analysis, and information which occurred.

Purpose and Need Documentation Requirements

Document sources that were consulted to define the project and need. Document the evolution of the purpose and need, including any input from stakeholders and agencies. Keep information that supports the purpose and need statement, such as documentation of a safety issue or future sea-level rise conditions.

CEQA Considerations

The purpose and need statement under NEPA is comparable to, but not exactly the same as, the objectives under CEQA. Both should speak to the "underlying purpose" of the project and inform the alternatives considered in the environmental review. Similar issues arise with objectives as they do with purpose and need because they are the foundation of alternative development. While the purpose and need may be the same as objectives, there can also be a NEPA purpose and need and a separate set of CEQA project objectives. Input should be solicited regarding purpose and need during the PEL Study, which can be the same as or inform the CEQA objectives, or the CEQA objectives may need additional work once CEQA has started.

PEL STEP 4

PEL STUDY STEP 4: IDENTIFY AND SCREEN A REASONABLE RANGE OF ALTERNATIVES

In Step 2, the Technical Baseline for the PEL Study was established and all relevant information captured. This helped develop the purpose and need statement in Step 3 and is also useful in Step 4 to identify transportation alternatives. The use of "alternatives" to describe potential transportation solutions is another strong connection to NEPA. In transportation planning solutions are often referred to as "strategies" or "scenarios." The primary difference in these descriptions is the level of detail and commitment to implementation as described. If adoption of the PEL Study alternatives in NEPA is the intent, it is important that the alternatives be sufficiently detailed to meet expectations for immediate implementation.

Alternatives as defined in a PEL approach are the same as in NEPA regulations and are broadly defined to capture all types of concepts, including locations, minor design variations, and major modal alternatives. Central to the PEL Study is identification of alternatives, screening of alternatives, and recommendation of which alternatives to carry into NEPA. The steps in alternatives evaluation are:

1. **Define the process for analyzing alternatives.** This should be defined based on the appropriate PEL statute or regulation being used (CFR Title 23, section 450.212 or 23 USC

section 139). This can include steps for public comment and review, and findings regarding alternatives eliminated from consideration.

2. **Identify alternatives evaluation criteria.** Evaluation criteria are developed and applied to screen alternatives and compare them, and the screening can be done in a series of several steps that become more detailed. The criteria are based on the purpose and need, public and agency concerns, and data about the study area. Screening criteria should therefore reflect purpose and need as well as environmental issues that would be critical factors that could make an alternative essentially infeasible. The criteria can be qualitative or quantitative. Examples of evaluation criteria include determining whether and to what degree an alternative increases safety, minimizes environmental resources impacts, supports future growth patterns, improves multimodal connections, or reduces VMT.
3. **Define the range of alternatives, including the No Build Alternative.** This stage involves coming up with a wide range of alternatives to be screened. The alternatives should be based on meeting the purpose and need, avoiding sensitive resources, and being consistent with applicable directives. Types of alternatives include:
    - The No Build Alternative, which generally reflects programmed improvements or those under development. This alternative serves as a baseline to reflect what would happen if no additional project were implemented in response to the defined purpose and need.
    - Modal alternatives, such as transit, bicycle, and pedestrian improvements, alongside roadway and highway alternatives.
    - Different locations of the corridor or project, such as bypasses or alternative corridors.
    - Changes to the alignment.
    - Transportation Management System options.
    - Access management and intersection or interchange improvements.

PEL PRACTICE TIPS Alternatives Screening

The previously referenced SR 37 PEL Study used a three-level screening of alternatives that adhered to the following descriptions:

Level 1: How well do the alternatives meet the project purpose and address the project need?

Level 2: For the remaining alternatives, how well do they meet other key objectives such as (1) feasibility and cost, (2) environmental and ecological factors, and (3) compatibility with community plans?

Level 3: For alternatives that perform best under Level 1 and Level 2, how do the alternatives compare against each other?

Consider a wide range of potential solutions early on, including changes to route configuration, access minimization, transportation demand management, and operations and maintenance alternatives.

4. **Screen alternatives according to the evaluation criteria.** Apply the evaluation criteria to screen alternatives and reject any alternatives that do not meet the criteria. Alternatives remaining are evaluated in more detail, and then screened using a more-detailed set of criteria. Screening should identify fatal flaws that would prevent implementation of an alternative. Screening should also elicit feasibility issues with alternatives, such as technical issues that make an alternative extremely difficult to construct or maintain or that might result in unwarranted environmental impacts.

5. **As part of the screening, conduct an environmental evaluation of each alternative.** The outcome of the environmental evaluation should be to identify resources that could affect the project's NEPA review or schedule or cost, describe impacts to resources, and identify potential measures to reduce or avoid impacts. Resource impacts that could have substantial effects on a project are those that require avoiding or minimizing impacts, require a long permitting or environmental compliance timeline, or may cause public controversy. The PEL Study should identify environmental consequences, which can include environmental and social impacts and can be beneficial or adverse. Impacts also include direct, indirect, and cumulative impacts. Direct impacts are those that result from the proposed action and occur at the same time and place as the proposed action. Indirect impacts result from the action but are later in time or in a different place than the proposed action. To be considered, indirect impacts must still be reasonably foreseeable.

PEL PRACTICE TIPS Range of Alternatives Screening

- Design the alternatives analysis to address transportation needs in terms of timing. For example, critical infrastructure projects, such as replacing infrastructure with critical structural deficiencies, modify the alternatives analysis process to provide for a faster timeframe.
- Before screening alternatives, solicit stakeholder input on alternatives concepts to help steer the alternatives toward those that meet stakeholder needs and transportation solution needs.
- Be thoughtful about level of detail developed for the consideration of alternatives in the PEL process. Costs can increase if detailed engineering is done at the PEL stage, and this work may need to be redone during the NEPA evaluation.

Cumulative impacts are those that occur when the impacts of the proposed action combine with impacts from other actions within a set time or specific place, resulting in compounding impacts over time. Information generated during PEL can include:

- GIS overlays showing the past, current, or predicted future conditions of the natural and built environments.
- Environmental scans that identify environmental resources and environmentally sensitive areas.
- Descriptions of airsheds and watersheds.
- Demographic trends and forecasts.
- Projections of future land use, natural resource conservation areas, and development.
- Modeling of induced VMT, consistent with Senate Bill 743, as the primary metric for project VMT impacts.
- Outputs of natural resource planning efforts, such as wildlife conservation plans, watershed plans, special area management plans, and multiple species habitat conservation plans.

PEL PRACTICE TIPS Environmental Evaluation

- Focus on environmental resources that were raised as stakeholder concerns.
- Solicit input from state and federal agencies regarding data that should be collected.
- Evaluate resources that will need to be assessed as part of subsequent consultation or permitting requirements so that agencies may consider that information early in the planning process.

The analysis of environmental impacts should not be as detailed as is needed for NEPA but does provide a foundation to supplement during NEPA. For example, map wetlands using desktop data rather than a field delineation, use existing data to map habitat, and identify sensitive land uses for noise rather than monitor noise levels.

6. **Develop alternatives that are carried forward after screening.** Additional detail should be developed for those alternatives that make it through alternatives screening. The level of detail should allow for:
   - Creating construction cost estimates so they can be used in programming.
   - Identifying and comparing environmental impacts.
   - Developing performance measures to determine to what degree they meet the purpose and need.
   - Responding to stakeholder concerns.

Alternatives Screening Documentation Requirements

Document how each step of alternatives screening occurred, including how evaluation criteria were defined, how alternatives were screened at each level, and why alternatives were eliminated. Documentation should be completed to NEPA standards, such as:

- Whether each alternative meets the purpose and need. For alternatives that are eliminated because they do not meet the purpose and need, document why or how they do not meet the purpose and need. For example, document that an alternative would place a roadway in an area that would be inundated by sea level rise and would therefore not meet the purpose and need of adapting to sea level rise.
- The extent to which each alternative meets each screening criteria. For example, if the screening critierion is for wetlands impacts, document the amount of wetlands impacted and, for eliminated alternatives, discuss the magnitude of the impact compared to alternatives that are carried forward.
- Cost considerations and how they factor into the alternatives analysis. Well-supported cost estimates and potential funding sources are necessary to inform feasibility screening.

Keep records of stakeholder and agency input on alternatives and evaluation criteria, such as meeting notes and written input. Identify next steps for each environmental resource evaluated as part of the PEL Study, including schedule impacts, NEPA scoping, and agency and stakeholder involvement. Answer the questions of who (agency and stakeholders), what (resource conclusions), where (resource locations), when (key schedule considerations), why (context), and how (approach) for each environmental resource.

CEQA Considerations

Alternatives can be dismissed in PEL only if they are clearly infeasible or cannot meet the project purpose and need. CEQA requires consideration of alternatives when an environmental impact report is prepared. Compared to NEPA, there could be a difference in the range of alternatives that are feasible as well as the level of detail needed to evaluate alternatives under CEQA. The No Action and No Project alternatives are likely to be the same because they both illustrate what would happen if the proposed action or proposed project was not approved. Where CEQA and NEPA differ is that CEQA alternatives must avoid or substantially reduce a significant impact of the proposed project, which may be difficult to identify early in the PEL Study. Therefore, there is a higher likelihood that additional alternatives may need to be considered to satisfy CEQA requirements after the PEL Study is completed and CEQA has begun, when significant impacts are identified. Additionally, NEPA alternatives are designed to meet the purpose and need and may not reduce impacts. Therefore, alternatives that may be appropriate under NEPA, as identified in the PEL Study, may not meet CEQA requirements if they do not avoid or substantially reduce a significant impact

of the proposed project. Conversely, an alternative screened out during the PEL could very well serve as a CEQA alternative to the proposed project if the alternative can be shown, with substantial evidence, to avoid or lessen any of the significant impacts of the proposed project, meet most of the basic objectives of the proposed project, and be potentially feasible.

PEL STEP 5

PEL STUDY STEP 5: DOCUMENT AND RECOMMEND ALTERNATIVES FOR NEPA EVALUATION

After alternatives screening, the PEL process ends with documentation of recommended alternatives as well as outlining the next steps for project implementation. These are documented in the PEL Study itself.

Develop an Implementation Plan

An implementation plan should be drafted to inform potential funding as well as the next steps needed to transition into NEPA. The financial and implementation strategy is a building block to the implementation plan that occurs near the end of the PEL Study. The financial and implementation strategy analyzes federal aid, grants, state transportation bonds, state general funds, and any other potential financial resources. It also discusses constructability, and rough construction estimates may be developed to support this discussion. The PEL team should determine next steps for project implementation as it moves out of PEL, which could be done via creation of an implementation or action plan that:

- Determine probable costs and potential funding.
- Assigns roles to local, state, and federal agencies, including future commitments of agencies.
- Defines projects that are individual projects with independent utility and logical termini.
- Assesses the probable NEPA class of action for each project stage.

Both large and small transportation projects are often constructed in phases. In some cases, a PEL preferred

PEL PRACTICE TIPS Implementation Plan

- If funding becomes available during PEL, transition to NEPA.
- If more than one alternative is an appropriate solution to meet the purpose and need, avoid superficially bringing forward only one alternative.
- Fact sheets for each small project, if the PEL Study has identified a series of projects, can be helpful in defining each project as it moves forward into its own NEPA phase.
- Leave room for changes between the PEL Study and NEPA because the original scope and purpose may change as transportation planning moves into environmental review for a specific project.

alternative might be divided into multiple, smaller sections, potentially as separate projects with independent utility and logical termini. When a PEL implementation plan includes such phasing, the implementation plan can also identify a future process for determining delivery priority among sections.

The table below outlines some potential considerations that can be used to establish priority among sections in such a project. The factors in this list are in alphabetical order; the order of importance to your project will depend on the needs and issues of your project. Moreover, this list is not exhaustive; other factors relevant to your project may be appropriate to include.

Factor	Potential Considerations
Construction Safety	▪ Anticipated duration of construction/duration of placement of temporary features ▪ Potential to require non-standard geometrics or complex detours/reroutes
Cost	▪ Expected cost to construct a particular section
Efficiency	▪ Complexity of construction staging (including minimization of "throwaway" costs between segments or phases)
Environmental	▪ Anticipated duration and timing of environmental surveys ▪ Potential for a section to incorporate ecological enhancement and environmental benefits (e.g. wildlife crossings, fish passage, etc.) ▪ Anticipated cost of mitigation
Intermodal facilitation	▪ Potential to provide more connection to existing transportation facilities, including transit and active transportation
Land Use Development	▪ Future anticipated growth along a corridor served by a transportation facility
Operational Safety	▪ Potential to resolve existing points of conflict
Other Planning Efforts	▪ Identification of certain improvements as a priority in another planning or land use plan
Public/Recreational Access	▪ Potential for construction to reroute or eliminate access to recreational sites along corridor
Physical Threats	▪ Potential to resolve existing and expected future areas of high flood risk, wildfire, or other hazards. ▪ Potential to resolve existing and expected future areas of climate action, such as areas of high flood risk, wildfire, coastal erosion, or other hazards. ▪ Potential to reduce risk of corridor/connectivity due to sudden or immediate sea level rise ▪ Hazardous conditions such as landslides and rockfalls, hazardous materials transportation, and bridge strikes

As with many parts of the PEL process, the approaches for determining delivery priority are flexible, and should be calibrated as need be in consideration of the particular transportation issue, the number/complexity of involved agencies, and other factors. Prioritization efforts must also account for long-term uncertainties. Because PELs often address long-term planning solutions, prioritization can also identify which individual projects are implementable in the near-term (e.g., 0 – 10 years), mid-term (5 – 15 years), long-term (10 – 20 years) and even beyond a 20-year planning horizon.

Identify Recommended Alternative(s)

A PEL Study intended to move into the NEPA phase should have a comparative analysis of alternatives that helps decision-makers to make a clear choice among the different alternatives. But the evaluation should be objective and should not be biased toward any one alternative over another reasonable alternative. Conceptual designs may be formulated during alternatives development. A cross section for these alternatives is helpful to develop estimates related to cut and fill areas, ROW needs, earthwork needs, and some detail about environmental impacts. In addition to informing the environmental impact evaluation, it supports formulation of planning-level cost estimates. Alternatives also often incorporate avoidance and minimization strategies as environmental impacts and community impacts are identified during PEL. Recommendation of alternatives for NEPA evaluation often involves multiple alternatives. Elimination of alternatives is typically limited to those that are infeasible because of inability to meet the purpose and need or because of a fatal flaw that would prevent an alternative from being constructed. The DEA Headquarters Coordinator must also concur with the results of alternatives screening.

Update the PEL Questionnaire

The PEL Questionnaire should be appended to the PEL Study after being completed over the course of the PEL Study. While a PEL Study need not address all topics in the PEL Questionnaire, it should address those that are relevant. It can also help to organize and identify documentation for transitioning a project into NEPA. The DEA Headquarters Coordinator should review the PEL Questionnaire at the end of the PEL Study once it has been updated.

Gather Technical Reports

Technical reports may have been prepared to supplement the PEL document. Technical reports will be project-specific and are created based on needs identified by stakeholder input and study area characteristics. Factors to consider are what information is needed for the PEL Study and what information will be needed for the future NEPA compliance or for future permitting. Technical reports could include a Roadway Existing Conditions Report, Alternatives Report, Safety Assessment, Noise Impacts Analysis, Community Impacts Assessment, Phase I Site Assessment, Wetland Delineation, Archaeological Survey, or Biological Resources Report.

Prepare the PEL Study Report

The PEL Study report documents information about the PEL analysis and decisions and should be formatted so that it can be appended to the NEPA document or incorporated by reference. It should meet the requirements outlined in 23 USC section 168 for planning products so that it can be used in a subsequent NEPA document. Planning products must meet 10 conditions if they are to be adopted following the statutory PEL requirements:

1. The planning product was developed through a planning process conducted pursuant to applicable federal law.
2. The planning product was developed in consultation with appropriate federal and state resource agencies and Indian Tribes.
3. The planning process included broad multidisciplinary consideration of system-level or corridor-wide transportation needs and potential effects, including effects on the human and natural environment.
4. The planning process included public notice that the planning products produced in the planning process may be adopted during a subsequent environmental review process in accordance with this section.

PEL STUDY REPORT EXAMPLE OUTLINE

The following outline can be used for a PEL Study, but remember that PEL is flexible, so the study outline should be designed appropriate for the individual PEL Study.

1. Introduction
2. Agency, Stakeholder, and Public Engagement
3. Vision, Purpose, and Need
4. Existing Conditions
5. Alternatives Identification
6. Alternatives Evaluation Criteria
7. Alternatives Screening and Identification of the Preferred Alternative
8. Implementation Plan

5. During the environmental review process, the relevant agency has made the planning documents available for public review and comment by members of the public and federal, state, local, and Tribal governments that may have an interest in the proposed project; provided notice of the intention of the relevant agency to adopt or incorporate by reference the planning product; and considered any resulting comments.
6. There is no significant new information or new circumstance that has a reasonable likelihood of affecting the continued validity or appropriateness of the planning product.
7. The planning product has a rational basis and is based on reliable and reasonably current data and reasonable and scientifically acceptable methodologies.
8. The planning product is documented in sufficient detail to support the decision or the results of the analysis and to meet requirements for use of the information in the environmental review process.
9. The planning product is appropriate for adoption or incorporation by reference and use in the environmental review process for the project and is incorporated in accordance with, and is sufficient to meet the requirements of, NEPA.
10. The planning product was approved within the five-year period ending on the date on which the information is adopted or incorporated by reference.

PEL PRACTICE TIPS Documentation

Include documentation of:

- How goals, objectives, and screening criteria were developed.
- Outreach, coordination, and informal consultation with agencies and Tribes.
- Environmental review activities that are planning-related, such as goals, public involvement, and avoidance of environmental resources.
- Rationale and outcomes of alternatives screening.
- Documentation procedures so that PEL information is transferred to the project development team.

The DEA Headquarters Coordinator should decide if these conditions have been met, assuming this is the PEL authority to be used. The PEL Study should document public involvement so it can be continued during NEPA. Documentation should cover meeting dates, times, and locations; summaries of meetings; attendee lists; notice distribution lists; advertisements for events and meetings; and copies of materials from meetings, such as presentations and handouts.

CEQA Considerations

If CEQA compliance is also needed, the next steps should also consider any documentation useful for CEQA. Use of PEL material in CEQA is not constrained by PEL-specific statues and regulations. However, CEQA has certain requirements, such as substantial evidence and baseline. PEL Study material could help to meet substantial evidence requirements. If the baseline for an environmental impact report is the release of the notice of preparation, the next steps for project implementation may be review of the PEL Study for whether it reflects baseline conditions. Additionally, the standard for preparation of each level of CEQA review is different than in NEPA, so the level of CEQA review should be reviewed independent of the NEPA class of action.

COORDINATION WITH CALTRANS DIVISION OF ENVIRONMENTAL ANALYSIS

As described throughout this chapter, there are a number of specific coordination points with Caltrans DEA. Refer to the following checklist to make sure DEA is included at each of these required check-in points:

- **Determining the reason for the PEL Study and the desired outcomes:** DEA is given the opportunity to be the driver of the PEL Study and on the scope of the PEL Study. This helps determine which portions of the PEL Questionnaire will be relevant and will influence the PEL scope of work.
- **Methodology and purpose and need:** DEA is given the opportunity to provide input on the transportation operations methodology and the purpose and need for the study.
- **Evaluating and screening alternatives:** DEA is provided the opportunity to provide input on components of the alternatives analysis, such as methodology, evaluation criteria, elimaination of alternatives, which alternatives are carried forward, and documentation of alternatives.
- **Finalizing the PEL Study document:** DEA is provided the opportunity to concur on the document's appropriateness for eventual use in a NEPA process, whether any additional changes are needed, and recommendations for projects and NEPA compliance made in the PEL Study.

PEL PRACTICE TIPS
DEA Coordination

- Have a structured process to check in with your DEA Headquarters Coordinator so that the PEL Study results are usable in NEPA.
- Prepare an executive summary that directs attention to parts of reports that need DEA Headquarters Coordinator approval.
- Clarify how the program or project subject to PEL is related to other Caltrans projects around the PEL Study area.

While these are the required check-in points, the PEL team may decide in coordination with DEA to include more check-in points. DEA's concurrence and other involvement should be documented by the PEL Study team.

CEQA Considerations

Coordination with Caltrans Division of Environmental Analysis is done within the framework of the PEL process and subsequent NEPA review. If material in the PEL is created to satisfy CEQA, then this should be discussed with Caltrans DEA to provide context for the CEQA-related content in the PEL Study report.

COORDINATION WITH CALTRANS DIVISION OF TRANSPORTATION PLANNING

As described earlier in this chapter, the PEL Study approach described here is intended to coordinate with other planning studies, specifically the Caltrans Corridor Planning Guidance. The specific coordination points with Caltrans DOTP identified in the diagram are:

- **Scoping:** Confirm the PEL Study is approved and funded. Consider if the statutory PEL requirements are likely to be met.
- **Technical Baseline:** Information developed in a corridor planning study should be shared with the PEL Study for participant awareness and consistency in the outcome. This is an ongoing interface that ensures decisions made in one study do not conflict with the other.
- **Purpose and Need:** A PEL Study purpose and need should be consistent with planning goals and objectives from a corridor or regional plan.
- **Identify and Screen Alternatives:** Strategies considered in a corridor planning study must be reviewed and considered during the PEL Study. This activity should be documented to inform NEPA and CEQA.
- **Document Alternatives:** If a preferred alternative is identified in either a PEL Study or a related corridor planning study, this selection must be considered and documented. Any preferred alternative/solution is often reflected in future planning analyses, such as the travel demand model or other methods.

At the end of a PEL Study, the documentation advancing to NEPA and CEQA needs to be shared with Caltrans planning and environmental practitioners in the relevant District and with regional planning organizations. Awareness of PEL Study participation, decisions, and products ensures that long-range planning activities have the most current information.

CHAPTER HIGHLIGHTS

- *Foundational considerations for the environmental process after completion of a PEL Study*
- *Areas where PEL Study information can inform a NEPA document and where additional study is needed*
- *Utility of the PEL Study for use in a CEQA document and where the PEL Study outcomes may not be entirely appropriate for use in a CEQA document*

4 Use of PEL in Future Environmental Processes

The central purpose of a PEL study is to link the planning and environmental processes. Therefore, a natural step after completing the PEL Study is environmental review. The FHWA specifically developed PEL to transition into NEPA. In addition, Caltrans projects typically must also comply with CEQA. The PEL can inform every step of environmental review under both NEPA and CEQA. The main benefit in conducting NEPA and CEQA review when a PEL Study has been completed is related to schedule. The PEL process can compress the overall schedule by providing Caltrans with a head start on material for NEPA and CEQA. Development and documentation of purpose and need, alternatives, existing conditions, and other topics can inform the same in NEPA and CEQA, reducing duplication of work and the timeline of NEPA and CEQA. For example, the PEL Study can result in early elimination of unreasonable alternatives, saving effort in the NEPA and CEQA alternatives analyses. One agency that consistently uses PEL found that, even if PEL Study reports cannot be directly used in the NEPA document, starting from an existing study is still useful.[11]

[11] See *PEL Benefits: Measuring the Benefits of Planning and Environmental Linkages (PEL)*, FHWA, October 2015.

INITIAL CONSIDERATIONS

The "NEPA Transition Guide" below contains questions to be considered when evaluating how to transition from PEL to NEPA. When a PEL Study is anticipated to transition to environmental review, the PEL Questionnaire (Appendix 3) also provides helpful information.

LEARN MORE

COST AND SCHEDULE BENEFITS

An FHWA study prepared in 2015, *PEL Benefits: Measuring the Benefits of Planning and Environmental Linkages*, documented the monetary and schedule savings of projects that used the PEL process. For one project in Utah, it noted an estimated savings of $2.5 million and 22 to 28 months for environmental review. An environmental assessment (EA) for a project in Colorado took five months instead of the average 32 months, while issuing the Finding of No Significant Impact for that project took a little over nine months—instead of the average of 50 months—from the start of environmental review. Colorado Department of Transportation (CDOT) had introduced an EA template at the same time, but CDOT was also confident the PEL Study made a substantial contribution to the NEPA schedule savings. It should be noted that the PEL Study took two years, dampening the overall time savings flowing from the reduced NEPA timeline. However, the content in the PEL Study was broader and identified multiple projects to address the transportation needs at issue. As a result, time savings should continue when each project undergoes environmental review. This same phenomenon can happen with costs (*See PEL Benefits: Measuring the Benefits of Planning and Environmental Linkages (PEL)*, FHWA, October 2015).

NEPA Transition Guide		
Timing	**How much time has passed since the planning studies and corresponding decisions were made?**	▪ NEPA must be initiated within five years of completing a PEL Study under 23 USC section 168. ▪ Caltrans may also use 23 USC section 139 as authority for PEL if planning is completed far ahead of NEPA and PEL includes only alternatives development and evaluation. ▪ Incorporation by reference, as can be done under NEPA in general, can also be considered (40 CFR section 1502.21; 23 CFR sections 450.212 and 450.318).
Assumptions	**Are the future year policy assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion consistent with those to be used in the NEPA process?**	▪ There must be no significant new information or new circumstances that have a reasonable likelihood of affecting the continued validity or appropriateness of the planning product to adopt or incorporate planning products into a NEPA document under 23 USC section 168. Additionally, the planning product must be appropriate for adoption or incorporation by reference and use in environmental review. ▪ NEPA requires that the environmental consequences analysis have a discussion of conflicts between the proposed action and objectives of federal, regional, state, and local land use plans (40 CFR section 1502.16(c)) and allows for a discussion of a cost-benefit analysis (40 CFR section 1502.23).

NEPA Transition Guide		
Relevance[12]	**Is the information still relevant and valid?**	▪ There must be no significant new information or new circumstances that have a reasonable likelihood of affecting the continued validity or appropriateness of the planning product, and the planning product must be appropriate for adoption or incorporation by reference and use in environmental review to adopt or incorporate planning products into a NEPA document under 23 USC section 168. ▪ NEPA requires that the description of the affected environment be sufficient to understand the effects of alternatives (40 CFR section 1502.15). As a result, the information must reflect the existing environment and, in that way, it must still be relevant and valid.
Changed Conditions[13]	**What changes (if any) have occurred in the area since the study was completed?**	▪ There must be no significant new circumstances that have a reasonable likelihood of affecting the continued validity or appropriateness of the planning product to adopt or incorporate planning products into a NEPA document under 23 USC section 168. ▪ NEPA requires that the description of the affected environment be sufficient to understand the effects of alternatives (40 CFR section 1502.15). As a result, the information must reflect the existing environment and, in that way, it must still be relevant and valid.
Format	**Is the information (e.g., PEL Study or other report) in a format that can be appended to an environmental document or reformatted to do so?**	▪ 23 CFR sections 450.212 and 450.318 allow publicly available documents or other source material to be incorporated directly or by reference into subsequent NEPA documents if they are in a form that can be appended or referenced in the NEPA document.

[12] Refer to note 5, above.
[13] Refer to note 5, above.

NEPA Transition Guide		
Methodology	**Are the analyses in a planning-level report or document based on data, analytical methods, and modeling techniques that are reliable, defensible, and consistent with those used in other regional transportation studies and project development activities?**	▪ The planning product must be based on reliable and reasonably current data and reasonable and scientifically acceptable methodologies to adopt or incorporate planning products into a NEPA document under 23 USC section 168. The planning product must also have included broad multidisciplinary consideration of system-level or corridor-wide transportation needs and potential effects. ▪ NEPA requires that agencies shall identify methodologies used and shall make explicit reference to sources relied upon for conclusions (40 CFR section 1502.24).
Stakeholder Involvement	**Were FHWA and Federal Transit Administration, other agencies, Tribes, and the public involved in the relevant planning analysis and the corresponding planning decisions?**	▪ The planning product must have been developed through a planning process conducted pursuant to applicable federal law, and the planning product had to be developed in consultation with appropriate federal and state resources agencies and Indian Tribes to adopt or incorporate planning products into a NEPA document under 23 USC section 168. Further, public notice had to be provided that the planning products produced may be adopted during subsequent environmental review. ▪ Caltrans may also use 23 USC section 139 as authority for PEL if the planning process followed federal guidance on requirements of NEPA and any other federal law necessary for project approval. It must have also included an opportunity for public review and comment and, with concurrence of federal agencies, determined that alternatives to be eliminated are not necessary for any permit or approval under any other federal law. ▪ 23 CFR sections 450.212 and 450.318 allow publicly available documents or other source material to be incorporated directly or by reference into subsequent NEPA documents if they underwent public review with reasonable opportunity to comment and were conducted with involvement of interested state, local, tribal, and federal agencies.

NEPA Transition Guide		
Relationship with Plans	**Are natural resource and land use plans being informed by transportation planning products, and vice versa?**	▪ NEPA requires that the environmental consequences analysis contain a discussion of possible conflicts between the proposed action and objectives of federal, regional, state, and local land use plans (40 CFR section 1502.16(c)).

CFR = Code of Federal Regulations; NEPA = National Environmental Policy Act; USC = United States Code

CEQA Considerations

Many questions listed in the "NEPA Transition Guide" are also relevant to transitioning to CEQA, including:

- **Is the information still relevant and valid?** For the environmental setting, the baseline is generally the date of the release of the notice of preparation (CEQA Guidelines section 15125(a)), indicating that out-of-date information can be problematic if it no longer represents current conditions. Additionally, outdated and irrelevant information may be problematic when considering if it can provide "substantial evidence" (see CEQA Guidelines section 15384).
- **What changes have occurred in the area since the study was completed?** As for the first question, the baseline is generally the date of the release of the notice of preparation (CEQA Guidelines section 15125(a)), indicating that out-of-date information can be problematic if conditions in the area have changed since completion of the PEL Study.
- **Were the future year policy assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion consistent with those to be used in CEQA?** This question can speak to the approach for the cumulative impact methodology, which often considers future transportation network, land use, and other changes.

It Is also helpful to consider whether the PEL Study was prepared with future CEQA compliance in mind. If not, then additional work may be needed to fill in more gaps and address the CEQA requirements that differ from NEPA. The Caltrans Standard Environmental Reference (SER) provides more guidance on NEPA, CEQA, and joint NEPA and CEQA compliance.

PLANNING FOR THE NEPA DOCUMENT

This stage defines the level of effort needed for NEPA based on what the PEL Study provides for the NEPA document. The PEL Study probably addressed many of the same issues to be covered for NEPA and provides a significant head start for the NEPA study. Prior to issuing the Notice of Intent, if an EIS is going to be completed, the NEPA study should be defined based on knowing and understanding the content of the PEL Study. The PEL Questionnaire (Appendix 3) developed as part of the PEL Study provides a foundation for the transition to NEPA, and the NEPA project team should review it to plan for the NEPA study. The PEL Questionnaire addresses the following items relevant to NEPA:

- Is the intent for the PEL Study to be (1) incorporated by reference into the NEPA and CEQA process or (2) for the NEPA and CEQA process to adopt specific PEL outcomes directly?

- What were the actual NEPA and CEQA terms used and how did you define them? (6c)
- How do you see these terms being used in NEPA and CEQA documents? (6d)
- Provide a description of coordination with federal, Tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them. (7a)
- Will the PEL Study develop a purpose and need for adoption during NEPA? If not, how will the transportation need identified in the PEL Study be documented to inform NEPA? (9a)
- Document the purpose and need statement. (9b)
- Alternately, document the corridor vision, goals, and objectives and how these relate to the PEL Study area. What steps will be needed during the NEPA/CEQA process to make this a project-level purpose and need statement? (9c)
- Which alternatives should be carried forward into the NEPA/CEQA process and why? (10c)
- What are the issues that need to be considered during the NEPA/CEQA process, including potential resource impacts and mitigation requirements (if known)? (12c)
- Will the planning data provided need to be supplemented during the NEPA/CEQA process? (12d)
- List environmental resources you are aware of that were not reviewed in the PEL Study and describe why. (13)
- Describe any mitigation strategies discussed at the planning level that should be analyzed during the NEPA/CEQA process. (15)

PEL HELPS

Early evaluation of environmental issues can help determine the appropriate class of action under NEPA or the level of review under CEQA, assisting with determining the likely schedule and level of effort for environmental review and project delivery. Additionally, a PEL Study can identify multiple smaller projects that may meet a transportation need and that can be cleared under a Categorical Exclusion, based on the substantial environmental information included in the PEL Study. (See *PEL Benefits: Measuring the Benefits of Planning and Environmental Linkages (PEL)*, FHWA, October 2015). This could similarly reduce the level of effort for NEPA and/or CEQA compliance.

- What needs to be done during the NEPA/CEQA process to make information from the PEL Study available to the agencies and the public? Are there PEL Study products which can be used or provided to agencies or the public during the NEPA/CEQA scoping process? (16)

The NEPA study can be planned to include additional steps as identified in the PEL Questionnaire. The SER can also be referenced to identify considerations for the NEPA study. If the PEL Study identified additional steps needed or onerous compliance processes (e.g., long permitting timelines) that will impact the NEPA schedule or budget, these should be factored into the NEPA plan. Sensitive resources that must be avoided should also be factored into the plan for design. At this stage, resources that are not present or pose no environmental concern can be considered for elimination or minimization from further consideration in the plan for NEPA.

CEQA Considerations

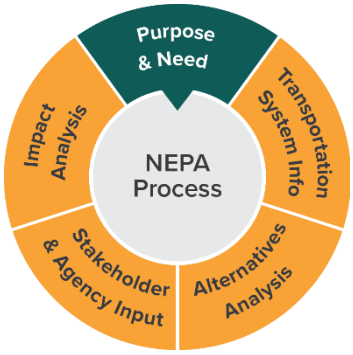
The PEL Questionnaire (Appendix 3) includes CEQA considerations with questions about NEPA in anticipation of the need for both NEPA and CEQA compliance. In addition to the questions above that are also relevant to CEQA, Chapter 5, *Preliminary Environmental Scoping*, of the SER details the steps needed for scoping for the CEQA document. That chapter covers the identification of project need, the Project Initiation Document, and refinement of project purpose and need and alternatives that would otherwise take place during the Project Approval and Environmental Document phase. PEL integrates these phases and should therefore inform CEQA similar to how PEL informs NEPA. Keep in mind the differences between NEPA and CEQA in planning for CEQA. For example, CEQA requires that alternatives avoid or substantially lessen a significant environmental impact. At this stage, significant impacts have not been identified, meaning that CEQA alternatives cannot be defined with certainty. In comparison, alternatives considered in the PEL Study may be appropriate to serve as the NEPA alternatives.

PEL INPUTS TO NEPA AND CEQA

PEL is designed to feed directly into the NEPA process. Although PEL was not specifically designed for CEQA, PEL can also provide substantial information to support CEQA. Below are some key areas where PEL can help streamline NEPA and CEQA.

- **Purpose and Need:** The purpose and need generated from the PEL Study is like that used for a NEPA document and should already adhere to Caltrans and FHWA regulations and guidance. A purpose and need from a PEL Study that is specific could serve as the NEPA purpose and need; a programmatic or broad purpose and need may need to be revised to be more focused for a particular project. The purpose and need statement under NEPA may need to be refined to formulate the objectives under CEQA.
- **Alternatives Analysis:** A key goal of a PEL process is to identify improvements that best meet the purpose and need and to recommend alternatives to carry forward in the NEPA process. Alternatives that may be appropriate under NEPA may not meet CEQA requirements for an alternative to the proposed project if they do not avoid or substantially reduce a significant impact of the proposed project.
- **Impact Analysis:** The environmental impact analysis conducted as part of a PEL Study provides context for the NEPA process, for which additional detail will need to be developed. There are some differences in the resources and how the evaluation is conducted that should be considered for CEQA compliance, such as VMT and historical resources.
- **Stakeholder and Agency Input:** NEPA requires involving federal, state, and local agencies and the public in development of EISs and EAs, and other applicable laws like the Clean Water Act and National Historic Preservation Act require agency involvement. However, agency and public participation in the PEL process is voluntary.

INTEGRATING THE PURPOSE AND NEED



The purpose and need generated from the PEL Study is similar to that used for a NEPA document and, as a result, should already adhere to Caltrans and FHWA regulations and guidance. The PEL Questionnaire (Appendix 3) contains the following information regarding purpose and need:

- What is the basis for undertaking a PEL Study? (1c)
- Document the purpose and need statement. (9b)
- Alternatively, document the corridor vision, goals, and objectives and how these relate to the PEL Study area. What steps will be needed during the NEPA and CEQA process to make this a project-level purpose and need statement? (9c)

In transitioning to the NEPA process, Caltrans should revisit the purpose and need and obtain consensus from other state and federal agencies in the case that:

- **The NEPA study area does not align with the PEL Study area.** A different study area may result from or warrant a different purpose and need than was identified for the PEL Study area.
- **Conditions in the study area have changed.** The information consulted in preparing the purpose and need and the logical termini in the PEL Study should be reviewed to determine if conditions have changed because changed conditions may affect the purpose and need for the transportation solution.
- **The NEPA process is beginning more than five years after the PEL Study was adopted.** NEPA must be initiated within five years of completing a PEL Study under 23 USC section 168. Even if the NEPA process begins within five years of adopting the PEL Study, it is nonetheless good practice to review data about topics such as land use, safety, economic development, and travel demand to identify any changed conditions since the PEL Study was adopted.

Remember, though, that if any of these conditions have occurred and it appears it will not be possible to meet the section 168 requirements, everything that has been completed can still be useful. Information that is older than five years but is still valid can be incorporated by reference. Other information can be updated with additional study.

A purpose and need from a PEL Study that is broad or programmatic may serve as a foundation for the project specific NEPA purpose and need but will need to be revised to be appropriate for the individual project. In that scenario, the project-level purpose and need should relate to the PEL Study's program-level purpose and need and explain how they are related. If, however, the PEL purpose and need was project specific, it probably also identified the project's logical termini and defined the independent utility. The PEL

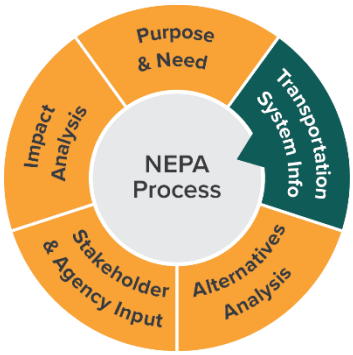
Study would therefore provide information to support that and incorporate it into the NEPA document.

CEQA Considerations

The purpose and need statement under NEPA is comparable to, but not the same as, the objectives under CEQA. While the NEPA purpose and need could be the same as the CEQA objectives, there could also be a NEPA purpose and need and a separate set of CEQA project objectives if federal and state agencies do not share the same objectives. At this point, Caltrans should evaluate the purpose and need for appropriateness for use as objectives under CEQA. The PEL Questionnaire should also contain information about what steps will need to be taken during CEQA to formulate objectives.

INTEGRATING TRANSPORTATION SYSTEM INFORMATION

Transportation system information is useful in NEPA review because the alternatives analysis must address the effectiveness of each alternative to meet transportation issues and meet the project purpose and need. The NEPA review must also evaluate impacts of a proposed action on the transportation system. The PEL Questionnaire (Appendix 3) asks the following related to planning assumptions and analytical methods:



- What is the forecast/horizon year used in the PEL Study? (11a)
- What method was used for forecasting traffic volumes? (11b)
- Are the planning assumptions and the corridor vision/purpose and need statement consistent with the long-range transportation plan/larger corridor study? Are the assumptions still valid? (11c)
- What future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion? (11d)

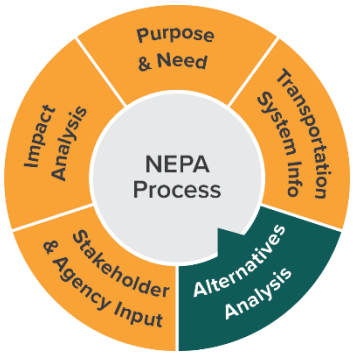
The travel demand forecasting, regional growth forecast, land use plans, and employment forecasts are planning analyses that can be incorporated into NEPA. When the PEL Study data are less than five years old and there have been no significant changes since data was obtained, then the NEPA study can use that data for the purpose and need and impact analysis. If the PEL Study is older than five years, then the transportation information must be reviewed when NEPA is undertaken to identify whether any new transportation data or modeling is necessary.

CEQA Considerations

The transportation system description can be used for CEQA if it represents baseline conditions (see CEQA Guidelines section 15125(a)). It could also be informative for the cumulative impacts analysis if it contributes to future projections (see CEQA Guidelines section 15130(b)(1)(B)). Note that CEQA also requires evaluating VMT per Senate Bill 743, while LOS is no longer an accepted metric for determining significance of transportation impacts. Therefore, for situations where CEQA is anticipated, the PEL team should review information to verify that VMT has been characterized and identify whether additional information is needed to conduct such an analysis.

INTEGRATING THE ALTERNATIVES ANALYSIS

Frequently, a key goal of a PEL Study is to recommend alternatives to bring forward into NEPA. Another interest is the elimination of alternatives from consideration. The PEL Questionnaire (Appendix 3) has the following information regarding alternatives:



- What types of alternatives were looked at? (Provide summary and reference document[s] with more detailed information) (10a)
- How did you select the screening criteria and screening process? (10b)
- For alternative(s) that were considered but not recommended for further evaluation, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.) (10c)
- Which alternatives should be carried forward into the NEPA/CEQA process and why? (10d)
- Did the public, stakeholders, and agencies have an opportunity to comment during this process? (10e)
- Were there unresolved issues with the public, stakeholders, and/or agencies? (10f)

NEPA requirements for alternatives by class of action as well as some considerations for transitioning from PEL to NEPA include:

- **Categorical Exclusion:** Alternatives are not explicitly required for a CE, though measures to avoid and minimize environmental impacts must be discussed. If the CE is prepared within five years of adoption of the PEL Study, the NEPA team can choose to move forward with just one recommended alternative from the PEL Study, even if more were recommended. The NEPA document should describe the alternatives screening that took place during the PEL Study to support why only one

alternative was carried forward into NEPA. The NEPA project team may also choose to consider more than one alternative from the PEL Study. This can be appropriate in a number of scenarios, including if the PEL Study does not identify a preferred alternative and requires further analysis to identify one, or if the NEPA scoping results in identification of a new alternative or indicates there is not consensus on a single alternative. Changed conditions and unusual controversy may also make appropriate consideration of more than one alternative. If the PEL Study is more than five years old, then the PEL Study alternatives analysis must be reviewed to determine if the results are applicable or if conditions have changed so that more alternatives must be considered. Your DEA Headquarters Coordinator should be consulted in this case.

- **Environmental Assessment:** Consideration of an action alternative and a No Action Alternative is required. Any other alternatives considered but dismissed should be documented. If the EA is prepared within five years of adoption of the PEL Study, the NEPA team can choose to move forward with just one recommended alternative from the PEL Study, even if more were recommended. The NEPA project team may also choose to consider more than one alternative from the PEL Study. This can be appropriate in a number of scenarios, including if the PEL Study does not identify a preferred alternative and requires further NEPA analysis to identify one, or if the NEPA scoping results in identification of a new alternative or indicates there is not consensus on a single alternative. Any alternatives considered but dismissed should be documented with a summary of why the alternatives were eliminated, referencing the PEL Study and either incorporating the PEL Study by reference or appending it to the EIS. The NEPA document should describe the alternatives screening that took place during the PEL Study to support why only one alternative (and the No Action Alternative) was carried forward into NEPA. Changed conditions and controversy may make it

PEL HELPS

In one project, the lead agency did such an extensive alternatives screening in the PEL Study that it brought forward only one build and the no-build alternatives into NEPA, which enabled the agency to focus more on impacts and mitigation for the alternatives instead of evaluating infeasible alternatives. A PEL Study can therefore identify alternatives that are unreasonable through a robust analysis and public engagement. This can narrow the number of alternatives evaluated in the NEPA and avoid unnecessary analysis (See PEL Benefits: Measuring the Benefits of Planning and Environmental Linkages (PEL), FHWA, October 2015.).

appropriate to consider more than one alternative. And, if the PEL Study is more than five years old, then the PEL Study alternatives analysis must be reviewed to determine if the results are applicable or if conditions have changed so that more alternatives must be considered. Your DEA Headquarters Coordinator should be consulted in this case.

- **Environmental Impact Statement:** Consideration of a reasonable range of alternatives and a No Action Alternative is required. Measures to reduce or avoid impacts must also be discussed. Any other alternatives considered but dismissed should be documented with a summary of why the alternatives were eliminated, referencing the PEL Study and either incorporating the PEL Study by reference or appending it to the EIS. New reasonable alternatives identified during NEPA scoping must be considered. All reasonable alternatives from the PEL must be considered in the EIS, no matter when the PEL Study was completed.

The PEL alternatives analysis should be reviewed again by state and federal agencies during NEPA. In addition, the final determination of eliminated and preferred alternatives is made during NEPA, even though the PEL Study recommends alternatives to be carried forward and to be eliminated.

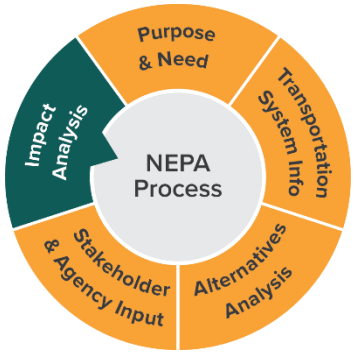
CEQA Considerations

Alternatives can be dismissed in PEL only if they are clearly infeasible or cannot meet the project purpose and need. For CEQA, alternatives, including the No Project alternative, are only needed for an environmental impact report. Compared to NEPA, there could be a difference in the range of alternatives that are feasible as well as the level of detail needed to evaluate alternatives under CEQA.

The purpose of the No Action (NEPA) and No Project (CEQA) alternatives are the same in that they serve to illustrate what would happen if the proposed action or proposed project is not approved. As a result, they will be similar, if not the same. However, CEQA alternatives, other than the No Action Alternative, must avoid or substantially reduce a significant impact of the proposed project, which may be difficult to identify early in the PEL Study because the impact analysis under CEQA has not yet begun. Alternatives identified for use in NEPA may not meet these requirements. Therefore, in transitioning into CEQA, the project team should be aware that additional alternatives may eventually need to be considered to satisfy CEQA requirements after significant impacts are identified. Alternatives identified in PEL Study may not qualify as alternatives under CEQA if they do not avoid or substantially reduce significant impacts.

INCORPORATING THE EXISTING CONDITIONS AND IMPACT ANALYSIS

The PEL environmental impact analysis provides context for NEPA. The following information from a PEL Study is relevant and can be carried forward to support the NEPA evaluation:



- Key environmental resources
- Geographic information system data
- Potential impacts
- Planning-level information that can inform indirect and cumulative impacts
- Resources that could require mitigation of impacts
- Identification of additional data that must be developed for NEPA
- Recommendations regarding methodology and schedule for additional analysis
- Resources that were and were not reviewed in the PEL Study and why, and whether non-reviewed resources should be studied under NEPA

However, even the most detailed PEL studies do not address all NEPA requirements, and so additional work will need to be completed during NEPA. The PEL Questionnaire (Appendix 3) asks the following questions for environmental resources, which will help identify additional work that is needed for the NEPA study and information that can be carried forward into the NEPA study:

- In the PEL Study, at what level of detail was used to review individual resources and what method of review was used? (12a)
- Is this resource present in the area and what is the existing environmental condition for this resource? (12b)

PEL HELPS

Identifying environmental resources that may need mitigation or add to project schedule and budget can focus the subsequent impact analyses and avoid schedule delays. Developing information about resources early in the planning process improves the quality of information available and developed, ideally resulting in project design and transportation solutions that are more environmentally responsible. This can reduce level of effort to address impacts in NEPA and CEQA. For example, one project replaced concrete with gravel in its multiuse trail design, reducing cost and stormwater runoff (FHWA 2015).

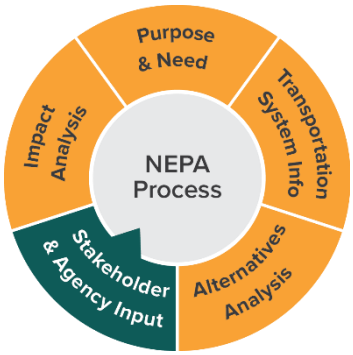
- What are the issues that need to be considered during the NEPA/CEQA process, including potential resource impacts and potential mitigation requirements (if known)? (12c)
- Will the planning data provided need to be supplemented during the NEPA/CEQA process? (12d)

If the PEL Study was adopted no more than five years before the NEPA study, then the resource information from the PEL Study can be incorporated into the NEPA study and supplemented as required. If it was not, then the PEL Study information must be validated, updated, and supplemented as part of NEPA. In that case, the PEL Study information can still help focus the NEPA analysis on key resources.

CEQA Considerations

The PEL material generated will largely serve a similar purpose for CEQA compliance as it will for NEPA compliance. However, there are some differences in the resources and how the evaluation is conducted that should be considered if CEQA compliance is also needed. For example, under NEPA, impacts are evaluated against the No Action Alternative, whereas CEQA generally uses the existing environmental setting as the baseline for evaluating impacts. CEQA's transportation analysis also includes an evaluation of induced VMT rather than LOS, and the CEQA Guidelines outline specific requirements for historical resources, Tribal Cultural Resources, and greenhouse gases. The PEL Study team should determine what additional information is needed to satisfy CEQA-specific issues, considering whether the environmental documentation is joint or separate.

INCORPORATING STAKEHOLDER AND AGENCY INPUT



NEPA requires involving federal, State, and local agencies and the public in development of EISs and EAs, and other applicable laws like the Clean Water Act and National Historic Preservation Act *require* agency involvement. However, agency and public participation in the PEL is *voluntary*. Therefore, actual agency involvement during the PEL Study may vary. Any level of public and agency involvement during the PEL Study should inform outreach efforts during NEPA. Outreach during the PEL Study can help identify critical issues and concerns early in the process and provide direction on environmental impacts and mitigation, including from agencies that have permitting authority. It can also refine outreach efforts during NEPA. The PEL Questionnaire (Appendix 3) has questions to help this transition, including:

- Who is included on the study team (name of sponsoring agencies, consultants, etc.) and what are their anticipated roles and responsibilities? (5)

- What were the key steps and coordination points in the PEL decision-making process? (6e)
- Who were the decision-makers and who else participated in those key steps? (6f)
- Provide a description of coordination with federal, Tribal, state, and local environmental, regulatory, and resource agencies. Describe their level of participation and how you coordinated with them. (7a)
- What other transportation agencies/organizations (jurisdictions, MPOs, FHWA, other) are included in the PEL Study? What are the roles and responsibilities? (7b)
- What actions will be needed to ensure support from each agency during NEPA/CEQA scoping? (7c)
- Provide a description of the intended coordination with the public and stakeholders. (8a)
- Document the initial public notification of the PEL Study and intended outcome. (8b)

PEL HELPS

PEL requires early and frequent communication with and input from agencies, stakeholders, and the public. Early input can benefit the project design when concerns are identified and addressed in planning. This input helps identify resource concerns early, provides more time for Caltrans to work with agencies and stakeholders to address concerns, and increases awareness of these issues during NEPA or CEQA. Collaboration with the public and agencies can improve communication later on, such as during NEPA and CEQA public and agency outreach.

- Were there unresolved issues with the public, stakeholders, and/or agencies? (10f)
- What needs to be done during the NEPA/CEQA process to make information from the PEL Study available to the agencies and the public? Are there PEL Study products which can be used or provided to agencies or the public during the NEPA/CEQA scoping process? (16)

CEQA Considerations

Although encouraged, agency participation is not required during PEL. It is required during NEPA and CEQA. As a result, similar questions should be asked for the CEQA transition as for the NEPA transition.

Appendix 1. Background of PEL Process and Relationship to Other Studies

This appendix provides a basic overview of the legal and regulatory background of the Planning and Environmental Linkages (PEL) process as well as resources available from the Federal Highway Administration (FHWA).

WHAT IS THE LEGAL AND REGULATORY BACKGROUND OF THE PLANNING AND ENVIRONMENTAL LINKAGES PROCESS?

The **Federal Highway Act of 1962** and the **National Environmental Policy Act of 1969** (NEPA) together require transportation planning and NEPA review for transportation projects. Statewide transportation planning is outlined in United States Code (USC) Title 23, sections 134 and 135, and USC Title 49, sections 5303 and 5304. When applied to transportation projects, NEPA requires consideration of impacts of transportation projects, including social, economic, and environmental impacts. It also includes agency and public outreach and consultation. Additionally, the transportation-related statutes describe that long-range transportation plans must include a discussion of types of potential environmental mitigation activities and potential areas to carry out the activities, which must be developed in consultation with federal, state, and tribal wildlife, land management, and regulatory agencies.

Additional statutes have, over time, continued to link transportation with environmental review. The **Intermodal Surface Transportation Efficiency Act of 1991** (ISTEA) mandated that states prepare a Statewide Transportation Plan (SWP) and a Statewide Transportation Improvement Program (STIP). The SWP examines a 20-year planning horizon for transit, highway, bicycle, pedestrian, and other transportation, while the STIP must cover at least four years of transportation projects that are consistent with the STP and other planning. ISTEA also put an emphasis on considering public and transportation partner input in making decisions about how to address transportation problems. Additionally,

1962
Federal Highway Act

1969
National Environmental Policy Act

1991
Intermodal Surface Transportation Efficiency Act

1998
Transportation Equity Act of the 21st Century

2005
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

2009
Every Day Counts Initiative

2012
Moving Ahead for Progress in the 21st Century Act

2015
Fixing America's Surface Transportation Act

2021
Infrastructure Investment and Jobs Act

LEARN MORE

Relevant Major Portions of Statues and Regulations

23 USC 139(f)(4)(E): Efficient environmental reviews for project decision-making and One Federal Decision

23 USC 168: Integration of planning and environmental review

23 U.S.C. 169: Development of programmatic mitigation plans

23 USC 327: Surface transportation project delivery program

23 C.F.R. 450.212 and 450.318: Transportation planning studies and project development

23 C.F.R 450, Appendix A: Linking the Transportation Planning and NEPA Processes

23 CFR 771.111: Early coordination, public involvement, and project development

40 CFR 1501.2: Apply NEPA early in the process

SWPs should reflect environmental objectives, like air quality attainment. The **Transportation Equity Act of the 21st Century** (TEA-21) replaced the ISTEA in 1998 and included provisions related to NEPA to address project delays, duplication of work, and costs that are frequently connected with the typical approach for NEPA review for transportation projects. The **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users** (SAFETEA-LU) then replaced TEA-21 in 2005. SAFETY-LU specifically included in transportation planning several components that are also relevant to NEPA review and provided stronger connections between planning and NEPA. Section 6001, for example, required that long-range transportation plans include a discussion of potential environmental mitigation activities defined with input from federal, state, and tribal wildlife, land management, and regulatory agencies, in addition to conducted outreach to interested parties. Section 6002 outlined provisions for efficient NEPA review.

FHWA started the **Every Day Counts** initiative in 2009 to identify and deploy innovations that shorten project delivery, enhance the safety of roadways, and protect the environment. PEL is an Every Day Counts initiative to encourage the use of information developed in planning to inform NEPA. The **Moving Ahead for Progress in the 21st Century Act** (MAP-21) replaced SAFETY-LU in 2012. MAP-21 amended USC Title 23 to include a section on integration of planning and environmental review. In 2015, the **Fixing America's Surface Transportation Act** (FAST Act) amended and added new PEL authority to USC Title 23. It also directed that the FHWA continue its Every Day Counts initiative. In 2016, FHWA and the Federal Transit Administration (FTA) issued a final rule that revised Code of Federal Regulations (CFR) Title 23, Part 450 to include provisions regarding integration of the PEL outcomes into NEPA documents. Although the 2021 **Infrastructure Investment and Jobs Act** (also known as the Bipartisan Infrastructure Bill) did not change PEL, it does provide additional funding related to climate change and equity.

Descriptions[14] of current relevant major portions of statutes and regulations as codified in the USC and CFR, respectively, are provided below:

23 U.S.C. 139(f)(4)(E), Efficient Environmental Reviews for Project Decision-making and One Federal Decision: Aims to reduce duplication in evaluation of alternatives under NEPA, allowing for a lead agency to eliminate an alternative from consideration in an Environmental Impact Statement if:

- The alternative was considered in a metropolitan planning process or a state environmental review process by a metropolitan planning organization or a state or local transportation agency, as applicable;
- The lead agency provided guidance to the metropolitan planning organization or state or local transportation agency, as applicable, regarding analysis of alternatives in the metropolitan planning process or state environmental review process, including guidance on the requirements of the NEPA and any other federal law necessary for approval of the project;
- The applicable metropolitan planning process or state environmental review process included an opportunity for public review and comment;
- The applicable metropolitan planning organization or state or local transportation agency rejected the alternative after considering public comments;
- The federal lead agency independently reviewed the alternative evaluation approved by the applicable metropolitan planning organization or state or local transportation agency; and
- The federal lead agency determined in consultation with federal participating or cooperating agencies, that the alternative to be eliminated from consideration is not necessary for compliance with NEPA; or with the concurrence of federal agencies with jurisdiction over a permit or approval required for a project, that the alternative to be eliminated from consideration is not necessary for any permit or approval under any other federal law.

23 U.S.C 168, Integration of Planning and Environmental Review: Allows lead and cooperating agencies to incorporate by reference and use a *planning product* for documents prepared under NEPA. Relevant to Caltrans, a "planning product" is a decision, analysis, or other documented information that is the result of an evaluation or decision-making process carried out by a state during statewide transportation planning under USC Title 23, section 135. The agency can adopt or incorporate decisions from a planning product, including whether tolling, private financial assistance, or other special financial measures are necessary to implement the project; a decision about general travel corridor or modal choice, including whether to implement corridor or subarea study

[14] Text has been edited for presentation. Refer to official sources for full text.

recommendations to advance different modal solutions as separate projects; the purpose and need for the proposed action; preliminary screening of alternatives and elimination of unreasonable alternatives; a basic description of the environmental setting; a decision about methodologies for analyses; identification of programmatic level mitigation of potential impacts, including a programmatic mitigation plan, that the agency determines that are more effectively addressed on a national or regional scale. Planning analyses that can be adopted or incorporated by reference from a planning product include travel demands; regional development and growth; local land use, growth management, and development; population and employment; natural and built environmental conditions; environmental resources and environmentally sensitive areas; potential environmental effects, including the identification of resources of concern and potential direct, indirect, and cumulative effects on those resources; and, mitigation needs for a proposed project, or for programmatic level mitigation, for potential effects that the lead agency determines are most effectively addressed at a regional or national program level.

Planning products must meet ten conditions if they are to be incorporated by reference:

1. The planning product was developed through a planning process conducted pursuant to applicable federal law.
2. The planning product was developed in consultation with appropriate Federal and state resource agencies and Indian Tribes.
3. The planning process included broad multidisciplinary consideration of systems-level or corridor-wide transportation needs and potential effects, including effects on the human and natural environment.
4. The planning process included public notice that the planning products produced in the planning process may be adopted during a subsequent environmental review process in accordance with this section.
5. During the environmental review process, the relevant agency has made the planning documents available for public review and comment by members of the general public and Federal, state, local, and tribal governments that may have an interest in the proposed project; provided notice of the intention of the relevant agency to adopt or incorporate by reference the planning product; and considered any resulting comments.
6. There is no significant new information or new circumstance that has a reasonable likelihood of affecting the continued validity or appropriateness of the planning product.
7. The planning product has a rational basis and is based on reliable and reasonably current data and reasonable and scientifically acceptable methodologies.

8. The planning product is documented in sufficient detail to support the decision or the results of the analysis and to meet requirements for use of the information in the environmental review process.
9. The planning product is appropriate for adoption or incorporation by reference and use in the environmental review process for the project and is incorporated in accordance with, and is sufficient to meet the requirements of, NEPA.
10. The planning product was approved within the five-year period ending on the date on which the information is adopted or incorporated by reference.

23 U.S.C 169, Development of Programmatic Mitigation Plans: Provides for development of programmatic mitigation plans as part of the statewide or metropolitan transportation planning process, to address potential impacts of future transportation projects. It also requires the Federal agency responsible for environmental review, permits, or approvals for a transportation project to give substantial weight to the plan's recommendations when carrying out its NEPA responsibilities.

23 U.S.C. 327, Surface Transportation Project Delivery Program: Provides that state transportation agencies can assume NEPA responsibilities for federal agencies. Since 2007, Caltrans has performed federal responsibilities for environmental decisions and approvals under NEPA for highway projects in California that are funded by FHWA. These responsibilities have been assigned to Caltrans by FHWA pursuant to two Memoranda of Understanding (MOU) signed by FHWA. The USC Title 23, Section 326 MOU allows Caltrans to approve Categorical Exclusions as considered under that Section; the USC Title 23, Section 327 MOU allows Caltrans to approve Environmental Assessments and Environmental Impact Statements, and Categorical Exclusions that cannot be approved as Categorical Exclusions under USC Title 23, section 326. On May 27, 2022, FHWA renewed the Caltrans 23 USC 327 NEPA Assignment MOU for a 10-year term. FHWA renewed the Caltrans 23 USC 326 Categorical Exclusion MOU on April 18, 2022, for a five-year term.

23 C.F.R. 450.212 and 450.318, Transportation Planning Studies and Project Development: States that, under TEA-21 section 1308, a state, Metropolitan Planning Organization (MPO), or transportation operator can undertake a multimodal, systems-level corridor or subarea planning study as part of the statewide transportation planning process and that it may result in production of the following:

- Purpose and need or goals and objective statement(s)
- General travel corridor and/or general mode(s) definition (e.g., highway, transit, or a highway/transit combination)
- Preliminary screening of alternatives and elimination of unreasonable alternatives
- Basic description of the environmental setting
- Preliminary identification of environmental impacts and environmental mitigation

They also state that publicly available documents or other source material produced by or in support of the transportation planning process may be incorporated directly or by reference into subsequent NEPA documents if:

- The NEPA lead agencies agree that such incorporation will aid in establishing or evaluating the purpose and need for the federal action, reasonable alternatives, cumulative or other impacts on the human and natural environment, or mitigation of these impacts; and
- The systems-level, corridor, or subarea planning study is conducted with involvement of interested state, local, Tribal, and federal agencies; public review; reasonable opportunity to comment during the statewide transportation planning process and development of the corridor or subarea planning study; documentation of relevant decisions in a form that is identifiable and available for review during the NEPA scoping process and can be appended to or referenced in the NEPA document; and the review of the FHWA and the FTA, as appropriate.

23 C.F.R 450, Appendix A, Linking the Transportation Planning and NEPA Processes: Explains the link between transportation planning and the project development and NEPA processes. It is not binding, and implementation of the appendix is considered voluntary. Most of the appendix is dedicated to a question-and-answer section on procedural, substantive, and administrative issues.

23 CFR 771.111(a)(2), Early Coordination, Public Involvement, and Project Development: States that information produced during or supporting transportation process can be incorporated into environmental review documents consistent with NEPA implementing regulations (40 CFR sections 1500–1508) and planning regulations and statutes (23 CFR Part 450, 23 CFR Part 450 Appendix A, or 23 USC sections 139(f), 168, or 169).

40 CFR 1501.2, Apply NEPA Early in the Process: As part of the NEPA implementing regulations, states that agencies should integrate the NEPA process with other planning and authorization processes at the earliest reasonable time.

WHAT FHWA RESOURCES ARE AVAILABLE FOR THE PLANNING AND ENVIRONMENTAL LINKAGES PROCESS?

FHWA has issued guidance and resources on implementation of PEL and on transportation planning can be integrated with NEPA.

FHWA Planning and Environmental Linkages Questionnaire. FHWA developed a questionnaire that summarizes the planning process and helps with the transition to the NEPA process. The FHWA PEL Questionnaire helps steer the planning process from its inception. The FHWA PEL Questionnaire helps to gather input on methodology, outreach, and other topics. It also is submitted with the PEL Study to FHWA for review, and the FHWA PEL Questionnaire will help FHWA determine if the PEL Study meets requirements listed in CFR

QUICK LINKS

FHWA Planning and Environmental Linkages Questionnaire: https://www.environment.fhwa.dot.gov/env_initiatives/pel/pel_quest.aspx

FHWA Planning and Environmental Linkages Questions and Answers: https://www.fhwa.dot.gov/hep/guidance/pel/pelqa2016.pdf

FHWA Environmental Review Toolkit, Planning and Environment Linkages: https://www.environment.fhwa.dot.gov/env_initiatives/pel.aspx

Title 23, section 450.212 or 450.318. Note that the FHWA PEL Questionnaire has been modified to fit Caltrans' specific needs (Appendix 3).

FHWA Planning and Environmental Linkages Questions and Answers. FHWA prepared a list of questions and answers to provide guidance on implementation of PEL that is meant to be updated as needed. Topics include public involvement requirements during transportation planning and environmental review, planning products that can be used in the environmental review process, and environmental justice requirements. The appendix also includes examples of state Department of Transportation and MPO PEL public participation practices.

FHWA Environmental Review Toolkit, Planning and Environment Linkages. As part of its website on initiatives to accelerate project delivery, FHWA maintains a webpage for PEL. It contains on on-demand webinars, peer exchange reports, case studies, and related publications.

Appendix 2. PEL Study Examples

This appendix contains several Planning and Environmental Linkages (PEL) studies from other states. The purpose of providing these PEL studies is not to signal they are templates for a Caltrans PEL Study. Instead, these examples serve to demonstrate the versatility and flexibility of PEL. The variety of transportation infrastructure, size of study area, rationale for using PEL, PEL outcomes, and the resources present in the study area show that Caltrans can and should consider PEL in a variety of applications.

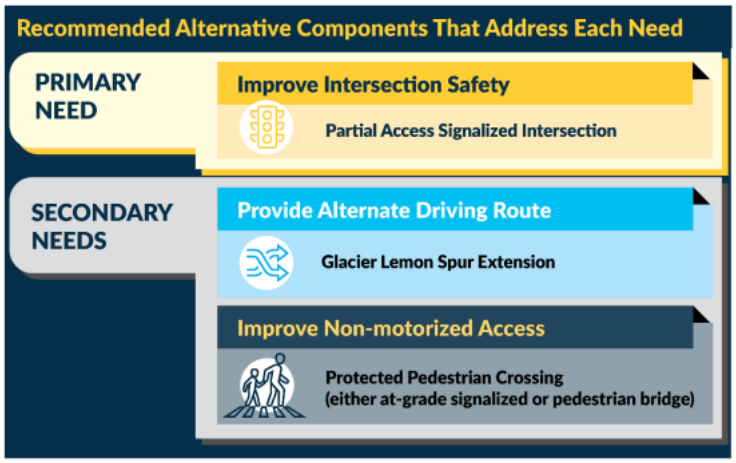
- Alaska DOT: *Planning and Environmental Linkages (PEL) Study Report: Egan Drive and Yandukin Drive Intersection Improvements*
- Colorado DOT: *State Highway 66 Planning and Environmental Linkages Study Report*
- Dover/Kent County MPO: *Banning Clarence Street Study PEL Report*
- South Carolina DOT: *I-526 Lowcountry Corridor East Planning and Environmental Linkages (PEL) Study Report*

In addition to the project examples above, a PEL approach can look vastly different in individual state Department of Transportation (DOT) products, as discussed in the following two examples:

- Florida DOT (FDOT) Efficient Transportation Decision Making
- North Carolina DOT (NCDOT) Integration Project

Alaska DOT: Planning and Environmental Linkages (PEL) Study Report: Egan Drive and Yandukin Drive Intersection Improvements

Alaska Department of Transportation (Alaska DOT) conducted the PEL Study to evaluate improvements that would address safety issues for motorists and non-motorists at an existing intersection and to also provide for an alternate route if there was an accident on Egan Drive. The study area was relatively small, at 1.5 miles long and 0.25 mile wide. The PEL Study followed a standard progression, beginning with purpose and need, identification of initial engineering treatments, generation of alternatives, and then screening alternatives. Notably, the project team found that safety improvements were significant and in recognizing that the PEL Study could take years, the project team also identified other ways to improve safety and fund permanent improvements on a shorter timeline. Because the DOT has NEPA Assignment, they also served in the Federal Highway Administration (FHWA) role for concurring on particular work products and decisions. The PEL also included an advisory group with 22 members of the public and an agency working group with 18 regulatory agency representatives. The outcomes of this PEL Study included:

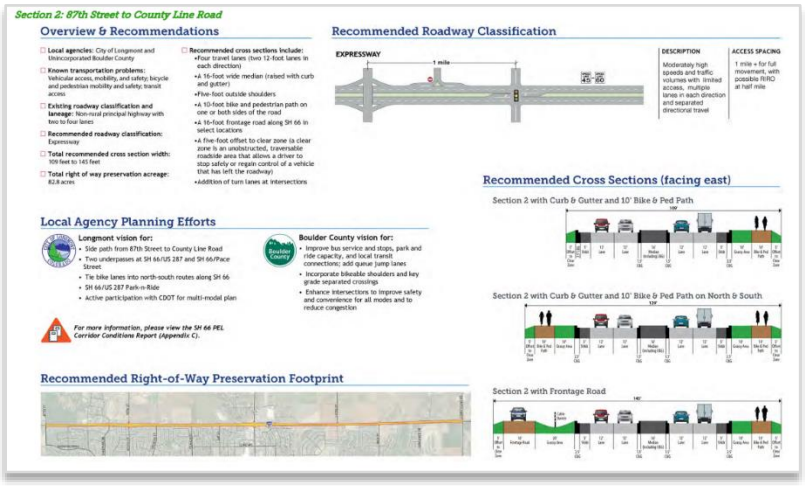


Recommended alternative components for the intersection

- Purpose and need crafted in a way that it could be used in subsequent National Environmental Policy Act (NEPA) studies as well as a set of additional community goals that potential improvements should address.
- Recommended alternative developed after two levels of screening of 15 alternatives.
- High-level evaluation of impacts, mitigation, and stakeholder concerns for each alternative based on existing environment.
- Recommendations on NEPA Class of Action for two implementation options for the Recommended Alternative.
- Cost estimates for the Recommended Alternative.

Link to PEL Study: https://dot.alaska.gov/sereg/projects/egan-yandukin/documents.shtml

Colorado DOT: State Highway 66 Planning and Environmental Linkages Study Report



Sample recommendation page of the SH 66 PEL Study

Colorado DOT conducted the PEL Study to address potential transportation improvements for safety, congestion, access control, and multi-modal mobility. The study area spanned a 20-mile rural corridor that was split into five sections in the second step of alternatives screening for consideration of future operational classifications of highway sections, number of through lanes, and basic cross-sections. Colorado DOT considered bicycle, pedestrian, and transit facilities. Colorado DOT also completed an Access Control Plan (ACP) concurrently with the PEL in the same study area.

The outcomes of this PEL Study included:

- Purpose statement as well as a summary of needs, goals, and objectives related to safety, mobility, access, community context, environment, and risk and resiliency.
- Prioritization of potential improvements to carry forward in PEL based on need, which was documented in the PEL Study recommendations and can be used by Colorado DOT and local agencies as they collaborate on implementation.
- Recommendation with a ROW preservation footprint based on three levels of screening that began with 70 generalized alternatives.
- Identification of potential NEPA documentation next steps.
- Cost estimates.

Link to PEL Study: https://www.codot.gov/projects/studies/co-66-pel

Dover/Kent County MPO: Banning Clarence Street Study PEL Report

The Dover/Kent County Metropolitan Planning Organization worked with the City of Dover and Delaware DOT to prepare this PEL Study in a mostly residential area with some commercial and industrial uses. Future residential development was a driving consideration for the study and a transportation solution. The PEL Study documented the project purpose and need, including connecting hundreds of planned housing units, reducing cut-through traffic, and providing a relief route for additional traffic. The PEL Study existing conditions, environmental resources, and project description section was based on desktop research and field verification and focused on built resources given the lack of natural resources in the mostly developed study area. The outcomes of the PEL Study included:

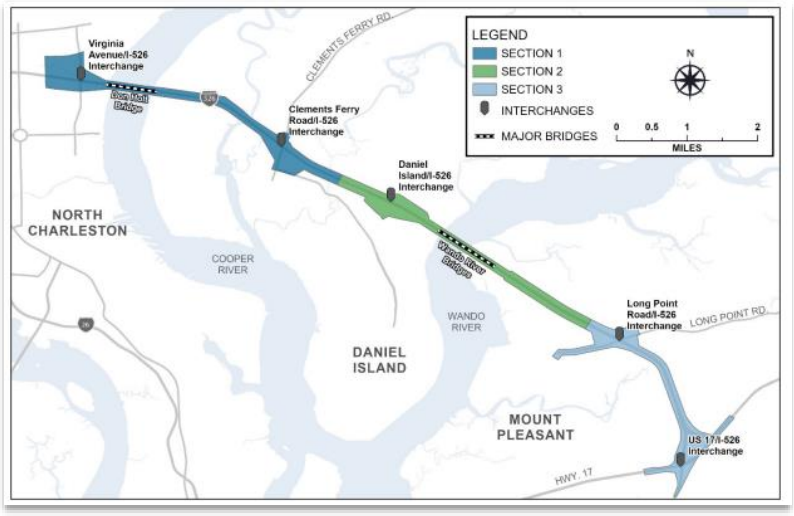
- Recommendations regarding stormwater infrastructure.
- Recommendations for advancing alternatives to design.
- List of agencies with whom coordination is recommended at the beginning of the design phase.
- Cost estimates.

Link to PEL Study:
https://doverkentmpo.delaware.gov/files/2021/11/Banning-Clarence-St-Study-PEL-Report-Final-1.pdf

Corridor alternatives

South Carolina DOT I-526 Lowcountry Corridor East Planning and Environmental Linkages (PEL) Study Report

South Carolina DOT conducted the PEL Study regarding transportation improvements to reduce congestion, improve travel time reliability, and address the mobility and roadway deficiencies that exacerbate those two issues. The study area is a 10-mile corridor with two major river crossings, providing a partial beltway around Charleston, and it contains two river crossings. A number of transportation studies and plans related in some way to the I-526 Lowcountry Corridor East study area and were reviewed to inform the PEL Study goals. Preliminary concepts included a wide range of potential options, such as additional lanes, interchange improvements, transportation systems management and operations strategies, and a parallel route. At the second level of screening, the PEL team broke the corridor into sections in the second level of screening to evaluate alternatives locally and more efficiently. The outcomes of this PEL Study included:



End-to-end sections of the corridor

- A purpose and need statement that considered input from the public, agencies, and stakeholders, as well as a list of goals that supplement the project purpose and need.
- List of anticipated permitting requirements, mitigation, and environmental considerations.
- Cost estimates.
- Discussion of phasing future project development of the corridor.
- Funding options.

Link to PEL Study: https://storage.googleapis.com/stateless-www-526lowcountrycor/wp-content/uploads/2022/07/I-526-LCC-EAST-PEL-Study-Report-Final-July-2022.pdf

FDOT Efficient Transportation Decision Making

Major highways in Florida

FDOT has applied the Efficient Transportation Decision Making (ETDM) to a large number of proposed transportation projects for almost two decades. As a PEL approach, ETDM allows early input, involvement, and coordination of stakeholders while identifying potential project effects to advance to the Project Development and Environment (PD&E) phase. ETDM uses Planning and Programming Screens to capture project input prior to determining class of action and initiating NEPA. During the Planning Screen comments received often identify environmental considerations that assist in assessing projects for inclusion or advancement. During the Programming Screen, qualifying projects are reviewed when being considered for funding in the FDOT Five-Year Work Program or Metropolitan Planning Organization Transportation Improvement Program before advancing to PD&E.

Each FDOT District has an Environmental Technical Advisory Team (ETAT) that includes representatives from Metropolitan Planning Organizations, Transportation Planning Organizations, state and federal agencies, and participating Native American Tribes. ETAT members and the public can provide input regarding a project's potential effects on the natural, physical, cultural, and community resources during the Planning or Programming phase of project delivery. This input helps to determine the feasibility of a proposed project; identify issues to be addressed during PD&E; and support early identification of potential avoidance, minimization, and mitigation opportunities.

ETDM is supported by the Environmental Screening Tool, an online interactive database and mapping application.

Project information is made available to the public through the ETDM Public Access Site: https://etdmpub.fla-etat.org/est.

NCDOT Integration Project

The PEL process used by the NCDOT is a major process improvement to integrate the long-range transportation planning process with project development, both at the local or county level and in metropolitan planning regions. The Integration Project was designed to improve the linkage between any type of long-range transportation plan and project development. The project development process in North Carolina is handled through the Section 404/ NEPA Merger 01 process or other means to follow NEPA and its state counterpart, State Environmental Policy Act (SEPA). NCDOT has identified eight potential linkages where work that is done in long-range planning could inform or serve as the starting point for NEPA/SEPA. Each of the planning items identified here are specifically linked to a point in NEPA/SEPA. Information is documented in planning to be used at a later date when the project is funded for environmental review.

Long Range Planning		Project Development
Problem Statement		**Purpose and Need**
Alternatives analysis		**Alternatives selected for detailed study**
Unreasonable solutions		**Alternatives selected for detailed study**
Multimodal analysis		**Multimodal alternatives**
Community Impacts Assessment		**Community Impacts Assessment**
Land use		**Indirect and Cumulative Effects**
Public Involvement		**Public involvement**
Mitigation opportunities		**Mitigation needs and opportunities**

Linkages between Long Range Planning and Project Development

Incorporation of resource agency considerations, priorities, regulatory, and resource management interests has long been an important goal of NCDOT. Through workshops and development of the Merger 01 process, it became clear that additional guidance was necessary to effectively collaborate with partner agencies and organizations prior to Merger and NEPA/SEPA. The Integration Project was developed to provide best practices for this coordination in the transportation planning process.

For more information, visit the website:
https://connect.ncdot.gov/projects/planning/Pages/Integration-Project.aspx

Appendix 3. Caltrans PEL Questionnaire Template

1. Background:
    a) What is the name of the PEL Study and other identifying information (e.g., sub-account or STIP numbers, long-range plan, corridor plan, or transportation improvement program years)?
    b) Who is the sponsor of the PEL Study? (Caltrans, Local Agency, Other)
    c) What is the basis for undertaking a PEL Study?
2. Provide a description of the existing transportation facility within the corridor, including project limits, modes, functional classification, number of lanes, shoulder width, access control and type of surrounding environment (urban vs. rural, residential vs. commercial, etc.)
3. Provide a brief chronology of the planning activities and documents prepared prior to the PEL Study. This may include modal studies, traffic and safety analysis, community and environment priorities, etc.
4. Are there related recent, current, or near future planning studies or projects in the vicinity? What is the relationship of the PEL Study to those studies/projects?
5. Who is included on the study team (name of sponsoring agencies, consultants, etc.) and what are their anticipated roles and responsibilities?
6. Methodology used:
    a) Is the intent for the PEL Study to be (1) incorporated by reference into the NEPA/CEQA process or (2) for the NEPA/CEQA process to adopt specific PEL outcomes directly?
    b) Is the PEL Study documentation sufficiently detailed to be used in NEPA/CEQA? If not, explain.
    c) What were the actual NEPA/CEQA terms used and how did you define them?
    d) How do you see these terms being used in NEPA/CEQA documents?
    e) What were the key steps and coordination points in the PEL decision-making process?
    f) Who were the decision-makers and who else participated in those key steps?

7. Agency coordination:
    a) Provide a description of coordination with federal, Tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.
    b) What other transportation agencies/organizations (jurisdictions, MPOs, FHWA, other) are included in the PEL Study? What are the roles and responsibilities?
    c) What actions will be needed to ensure support from each agency during NEPA/CEQA scoping?
8. Public coordination:
    a) Provide a description of the intended coordination with the public and stakeholders.
    b) Document the initial public notification of the PEL Study and the intended outcome.
9. Purpose and Need for the PEL Study:
    a) Will the PEL Study develop a purpose and need for adoption during NEPA? If not, how will the transportation need identified in the PEL Study be documented to inform NEPA?
    b) Document the purpose and need statement.
    c) Alternately, document the corridor vision, goals, and objectives and how these relate to the PEL Study area. What steps will be needed during the NEPA/CEQA process to make this a project-level purpose and need statement?
10. Range of alternatives: Detail the range of alternatives considered, screening criteria, and screening process, including:
    a) What types of alternatives were looked at? (Provide summary and reference document[s] with more detailed information)
    b) How did you select the screening criteria and screening process?
    c) For alternative(s) that were considered but not recommended for further evaluation, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.)
    d) Which alternatives should be carried forward into the NEPA/CEQA process and why?
    e) Did the public, stakeholders, and agencies have an opportunity to comment during this process?
    f) Were there unresolved issues with the public, stakeholders, and/or agencies?
11. Planning assumptions and analytical methods:
    a) What is the forecast/horizon year used in the PEL Study?
    b) What method was used for forecasting traffic volumes?

c) Are the planning assumptions and the corridor vision/purpose and need statement consistent with the long-range transportation plan/larger corridor study? Are the assumptions still valid?

d) What future year policy and/or data assumptions were used in the transportation planning process related to land use, economic development, transportation costs, and network expansion?

12. For each resource or group of resources reviewed (wetlands, cultural, etc.), provide the following:

    a) In the PEL Study, what level of detail was used to review individual resources and what method of review was used?

    b) Is this resource present in the area and what is the existing environmental condition for this resource?

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

    d) Will the planning data provided need to be supplemented during the NEPA/CEQA process?

13. List environmental resources you are aware of that were not reviewed in the PEL Study and describe why.

14. Were cumulative impacts considered in the PEL Study? If yes, provide the information or reference where the analysis can be found.

15. Describe any mitigation strategies discussed at the planning level that should be analyzed during the NEPA/CEQA process.

16. What needs to be done during the NEPA/CEQA process to make information from the PEL Study available to the agencies and the public? Are there PEL Study products which can be used or provided to agencies or the public during the NEPA/CEQA scoping process?

17. Are there issues or risks for the NEPA/CEQA process and beyond that should be documented?

18. Provide a table of identified projects and/or proposed phasing plan for corridor build out.

19. Provide a list of what funding sources have been identified to fund projects from this PEL.