

Appendix O:  
Land Use  
Discipline Report

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# Point Defiance Bypass Project



## Land Use Discipline Report



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# Table of Contents

- Summary..... 1
  - What are the effects to land use by the station relocation component of the Project? ..... 1
  - What are the effects to land use by the Bypass Route component of the Project? ..... 2
  - What minimization measures are proposed? ..... 3
- Chapter 1 – Project Description ..... 1
  - Introduction..... 1
  - Purpose and Need ..... 1
  - What alternatives are being considered for the Point Defiance Bypass Project? ..... 2
  - What’s happening in the bypass corridor today?..... 2
  - What would happen if the Project were not built?..... 3
  - What are the proposed improvements and related activities of the Point Defiance Bypass Project? ..... 3
  - What are the proposed operational changes that would result from the Point Defiance Bypass Project? ..... 4
- Chapter 2 – Methodology ..... 7
  - Why should land use be reviewed? ..... 7
  - What key regulations apply to land use planning and consistency analyses?..... 8
  - How was the study area defined for this report? ..... 12
  - How was the study area defined for the existing route, the No Build Alternative?..... 12
  - What Information was researched?..... 14
  - How does this report relate to previous environmental studies completed for the Project?..... 15
  - What coordination was used in the land use analysis? ..... 16
- Chapter 3 – Affected Environment ..... 17
  - What are the general existing land use characteristics of the study area for the Project?..... 17
  - What are the existing land uses within the incorporated areas of Tacoma and Lakewood? ..... 29
  - What are the existing land uses within the unincorporated areas of Pierce County? ..... 32
  - What are the general land use characteristics of the military reservations located within the study area?..... 33
  - What adjacent existing land uses may affect the Project? ..... 34
  - What resource lands were identified within the study area?..... 34
  - What shorelines and critical areas were identified within the study area?..... 34
  - What are the general development trends in the study area? ..... 38
- Chapter 4 – Consistency Analysis with Land Use Policies, Plans and Regulations ..... 43
  - What are the planned use and zoning policies and regulations adopted by the City of Tacoma that apply to the Project?..... 43
  - Is the Project consistent with the policies and regulations adopted by the City of Tacoma? ..... 56
  - What are the planned use and zoning policies and regulations adopted by the City of Lakewood that apply to the Project?..... 56
  - Is the Project consistent with the policies and regulations adopted by the City of Lakewood?... 57
  - What are the planned use and zoning policies and regulations adopted by Pierce County that apply to the Project?..... 58
  - Is the Project consistent with the policies and regulations adopted by Pierce County?..... 59

Is the Project compatible with the area military reservation plans? .....	60
What are the planned use and zoning designations, and is the Project consistent with the policies and regulations adopted by the City of DuPont? .....	61
Is the Project consistent with state or regional transportation plans? .....	62
Chapter 5 – Potential Project Effects .....	63
What are the Federal Railroad Administration requirements for identifying effects? .....	63
What is a project effect? .....	63
What are the land use related effects identified for the Project in other discipline reports? .....	64
What are the construction effects to land use by the Project? .....	65
What are the operational effects to land use by the station relocation component of the Project? .....	65
What are the operational effects to land use by the bypass route component of the Project? ...	65
What are the indirect and cumulative effects to land use by the Bypass Route component of the Project? .....	69
Chapter 6 – Recommended Minimization Measures.....	75
References.....	77

## List of Exhibits

Exhibit 1. Build Alternative Components .....	5
Exhibit 2. Study Area.....	13
Exhibit 3. (Panels 1-10) Existing Land Uses .....	19
Exhibit 4. Existing Land Uses –Incorporated Areas .....	29
Exhibit 5. Existing Land Uses within incorporated areas.....	30
Exhibit 6. Streams within the Study Area .....	37
Exhibit 7. City of Tacoma – Applicable Planned Use and Zoning Designations.....	43
Exhibit 8. (Panels 1-10) Zoning Designations .....	44
Exhibit 9. Tacoma Amtrak Station Relocation – Existing Land Use and Zoning .....	55
Exhibit 10. City of Lakewood –Applicable Planned Use and Zoning Designations .....	57
Exhibit 11. Pierce County – Applicable Planned Use and Zoning Designations .....	58
Exhibit 12: Recent Development Proposals in Project Area .....	71
Exhibit 13: Transportation Related Projects – Current and Reasonably Foreseeable.....	72



# Summary

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The Point Defiance Bypass Project (the Project) would improve safety and reliability, and enhance rail service frequency and efficiency for Amtrak Cascades passenger rail service along the Pacific Northwest Rail Corridor. The Project is located in Pierce County, Washington within an existing 21-mile railroad corridor.

This discipline report has been prepared in support of the Point Defiance Bypass Project Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA), the State Environmental Policy Act (SEPA), and the Federal Railroad Administration's (FRA) Procedures for Considering Environmental Impacts.

The 20-mile-long study area can be generally described as an existing railroad corridor that generally parallels and is west of the I-5 transportation corridor and is located within both incorporated and unincorporated areas. Approximately two-thirds of the Project length is located within or adjacent to the incorporated cities of Tacoma, Lakewood, and DuPont. The remainder lies within unincorporated area of Pierce County, the majority of which is occupied by US Joint Base Lewis McChord (JBLM) and Camp Murray National Guard military complexes.

## **What are the effects to land use by the station relocation component of the Project?**

Based on the analysis completed for this report, effects to existing and planned land uses would result from the Tacoma Amtrak Station relocation component of the Project by enhancing the accessibility to and between the modes of transportation in the downtown Tacoma area. The relocation to the Tacoma Dome Station at Freighthouse Square is consistent with adopted plans specific to the revitalization and redevelopment of the Tacoma Dome neighborhood and enhancing the pedestrian connection between rail services, with the goal to create economic opportunities at local, statewide and multi-state levels by the increased reliability and frequency of alternative modes of transportation.<sup>1</sup>

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<sup>1</sup> Tacoma 2001

## **What are the effects to land use by the Bypass Route component of the Project?**

Implementation of the Project would re-route high speed rail traffic away from the Puget Sound shoreline to an existing interior route used by freight and commuter trains, and would upgrade and improve the existing railroad crossings and infrastructure.

Generally, new rail facilities like a station can have positive effects like increased land values and development density, and redistribution of development to areas near the station. The re-development around the Lakewood Sound Transit Station is an example.

### **Incompatibility with adjacent land uses**

Implementation of the Project would affect adjacent land uses by the high speed and more frequent trains traveling through the communities. However, the train passbys would occur in only short durations at any given point along the corridor (approximately 12 minutes per day in total).

An estimated 25-30 percent of the adjacent lands within the urban-developed portion of the study area are identified for redevelopment potential regardless if the Project is implemented. Future development in these areas would have considered the proximity to an existing freight corridor.

Noise, vibration, transportation, public services, visual and socioeconomic effects have been identified in other discipline reports which may indirectly or directly affect adjacent land uses which range from residential to industrial. The potential effects identified were minimal to moderate.

### **Inconsistency with adjacent land use plans and zoning regulations**

The Project is consistent with adopted plans and would implement adopted policies reviewed for this report. No policy or zoning regulation was found that the Project would violate or require regulatory or development standard amendments to be adopted in order to implement the Project.

Continued growth, development, and re-development in the study area would occur as forecasted and planned for in land use and transportation plans. Limited redevelopment may occur near the relocated Tacoma Amtrak Station, which would occur in accordance with governing land use plans and zoning regulations.

### **Displacement of a substantial number of housing units or commercial uses**

Property acquisition for additional parking west or north of Freighthouse Square is anticipated as a part of the Project. The current use of the properties proposed for acquisition is parking. Therefore, this acquisition would not displace housing or commercial units. The Project would not displace any additional existing land uses or acquire additional property. Therefore, no effect to residential or commercial uses would result.

### **Extensive community disruption that affects adjacent land uses**

Implementation of the Project would affect adjacent and planned land uses by the high speed and more frequent trains traveling through the communities. However, the estimated daily 12 minute total delay of traffic at crossings is not significant. In addition, many of the crossings would be upgraded and local connectivity ultimately improved over existing conditions.

## **What minimization measures are proposed?**

To protect against unanticipated impacts and to further reduce the incidence of minor effects, minimization measures may be implemented for effects to air quality, noise and vibration, transportation, and public services and utilities. No land use-specific minimization measures are proposed.

Continued transportation and land use planning coordination with local jurisdictions, neighboring communities, and military and regional planning efforts is recommended to further enhance the level of services and quality of life, and overall, plan for continued economic and population growth in the Puget Sound.



# Chapter 1 – Project Description

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## Introduction

Under the High-Speed Intercity Passenger Rail (HSIPR) Program and pursuant to a programmatic Tier I Environmental Assessment (EA) the Federal Railroad Administration (FRA) has approved an application from the Washington State Department of Transportation (WSDOT) to improve the Pacific Northwest Rail Corridor (PNWRC), a federally designated high-speed rail corridor. One project included in the PNWRC application is the Point Defiance Bypass Project (the Project), which would respond to deficiencies in the existing rail operations around Point Defiance. This Discipline Report has been prepared in support of the project-specific EA for the Point Defiance Bypass project.

The Project is located in Pierce County along an existing approximately 20-mile rail corridor between Tacoma and Nisqually.<sup>2</sup> The Project would provide for the re-routing of Amtrak passenger trains from the BNSF rail line that runs along the southern Puget Sound shoreline (Puget Sound route) to the Point Defiance Bypass route, an existing rail corridor that runs along the west side of I-5. The Project would consist of railroad track and support facility improvements, and relocation of the Tacoma Amtrak Station to Freighthouse Square in Tacoma.

## Purpose and Need

As described above, the Point Defiance Bypass route is part of the larger PNWRC. Within Washington State, the vision for the PNWRC is to “...improve intercity passenger rail service by reducing travel times and achieving greater schedule reliability in order to accommodate growing intercity travel demand...”<sup>3</sup>.

The purpose of the Project is to provide more frequent and reliable high-speed intercity passenger rail service along the PNWRC between Tacoma and Nisqually. In conformity with the decisions under the Tier 1 Programmatic EA, the PNWRC Improvement Program has reduced the overall environmental effects of providing improved passenger rail service with the use of an existing transportation corridor and associated infrastructure, rather than creating a new corridor.

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<sup>2</sup> *The three owners of the project corridor are Sound Transit, Tacoma Rail, and BNSF.*

<sup>3</sup> *WSDOT 2009*

The Project is needed to address the deficiencies in the existing rail alignment around Point Defiance. The existing alignment (Puget Sound route), shared by freight and passenger rail traffic, is near capacity and is therefore unable to accommodate additional high-speed intercity passenger rail service without substantial improvements. In addition, the existing alignment has physical and operational constraints that adversely affect both passenger train scheduling and reliability.

Improving intercity passenger rail service in the project area and meeting the Project needs would be accomplished by:

- **Enhanced Frequency:** Increasing Amtrak Cascades round-trips from four to six by 2017 to meet projected service demands.
- **Improved Reliability:** Reducing scheduling conflicts with freight trains that often result in delays, and by minimizing or avoiding operational delays (e.g., drawbridge openings) and weather-related delays (e.g., mudslides), and improving on-time performance from 68 percent to 88 percent.
- **Enhanced Efficiency:** Enhancing the efficient movement of people by decreasing trip times by 10 minutes, and reducing the amount of time passenger trains spend yielding to freight movements.
- **Improved Safety:** Constructing at-grade crossings with upgraded safety features, including wayside horns, median barriers, advance warning signals, and traffic signal improvements.

## **What alternatives are being considered for the Point Defiance Bypass Project?**

FRA and WSDOT conducted an evaluation of three build alternatives: the Point Defiance Bypass Alternative, the Shoreline Alternative, and the Greenfield Alternative. Two of the alternatives (the Shoreline Alternative, and the Greenfield Alternative) were eliminated from further study. Although both alternatives could meet the Project's purpose and need, they were determined to be impracticable and unfeasible due to technical constraints, high construction costs, and significant environmental effects. Grade separations were also evaluated for further consideration. FRA and WSDOT's preliminary analysis revealed that current and projected future traffic volumes do not warrant the construction of new grade-separated crossings.

## **What's happening in the bypass corridor today?**

The rail line between TR Junction and East "D" Street in Tacoma hosts both freight and commuter trains, including freight operators Tacoma Rail and BNSF, and Sound Transit's *Sounder* commuter rail service. Freight

train traffic between TR Junction and East “D” Street averages under two trains per day, while Sound Transit currently operates 18 trains per day between Freighthouse Square and Seattle each weekday, and also offers occasional special event trains, usually on weekends, to serve sporting and other events in Seattle. *Sounder* service to Lakewood begins in late 2012.

## What would happen if the Project were not built?

If the Project were not built (the No Build Alternative), Amtrak’s Cascades and Coast Starlight passenger train service would continue to use the existing Puget Sound route. The No Build Alternative includes only the minor maintenance and repair activities necessary to keep the existing Puget Sound route operational. With the No Build Alternative, it would be expected that as freight traffic increases, congestion would adversely affect Amtrak service reliability, and the travel time for Amtrak trains between Seattle and Portland would increase.

Along the Point Defiance Bypass route, the Tacoma Rail and BNSF freight services would continue. The at-grade crossings at Clover Creek Drive Southwest, North Thorne Lane Southwest, Berkeley Street Southwest, 41st Division Drive, and Barksdale Avenue Southwest would not be upgraded.

Sound Transit’s *Sounder* commuter passenger trains will become operational in late 2012 between the Tacoma Dome Station at Freighthouse Square in Tacoma and Sound Transit’s Lakewood Station (on the Point Defiance Bypass route) with as many as 18 *Sounder* trains per day.

## What are the proposed improvements and related activities of the Point Defiance Bypass Project?

The Project consists of railroad track and support facility improvements, and the relocation of Amtrak’s Tacoma Station. Exhibit 1 shows the components of the Build Alternative. The following details specific components of the Build Alternative.

- **Construct New Track Adjacent to the Existing Main Line** – A new 3.5-mile track adjacent to the existing main line would be constructed from South 66th Street (Rail MP 6.9) in Tacoma to between Bridgeport Way SW (Rail MP 10.4) and Clover Creek Drive SW (Rail MP 10.9) in Lakewood.
- **Reconstruct and Rehabilitate the Existing Main Line** – Starting just southwest of Bridgeport Way Southwest (Rail MP 10.4) in Lakewood, the existing track would be reconstructed to a location southeast of the I-

5/Mounts Road Southwest interchange (Rail MP 19.8) at Nisqually Junction.

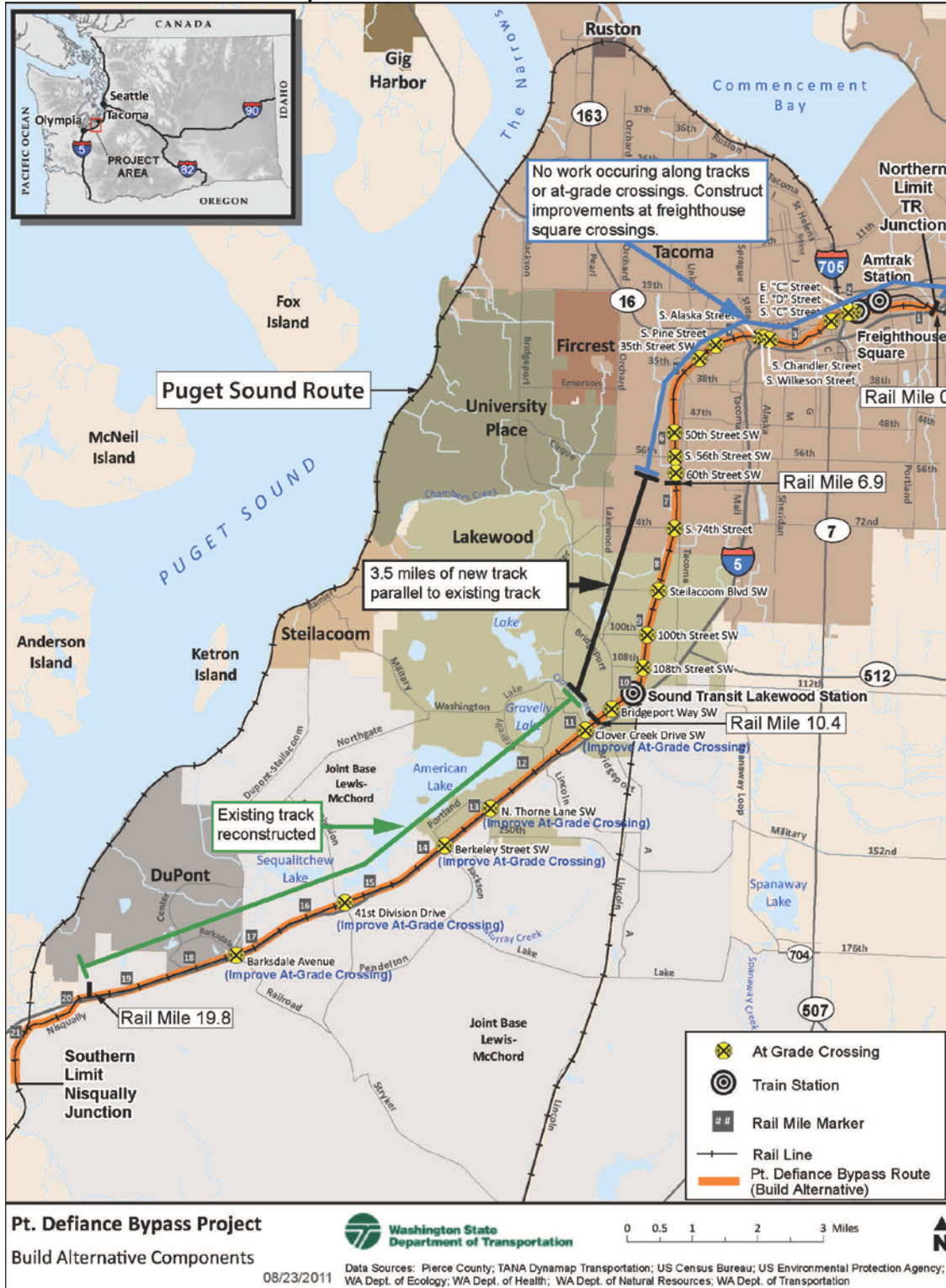
- **Improvements at at-Grade Crossings** – Several grade crossings would be improved with wayside horns, gates, traffic signals and signage, sidewalks, median separators, and warning devices. These crossings include Clover Creek Drive Southwest, North Thorne Lane Southwest, Berkeley Street Southwest, 41st Division Drive and Barksdale Avenue.
- **Tacoma Amtrak Station Relocation** – The existing Tacoma Amtrak Station would be relocated from its Puyallup Avenue location to the Tacoma Dome Station at Freighthouse Square, at 430 E. 25th Street in Tacoma.

### **What are the proposed operational changes that would result from the Point Defiance Bypass Project?**

Amtrak's existing Cascades and Coast Starlight passenger train service would be rerouted from the Puget Sound route along the Puget Sound shoreline to the Point Defiance Bypass route. The Project would also provide for additional Amtrak Cascades service by increasing the number of round trips provided from 4 to 6, or a total of 12 Cascades service train trips. Amtrak Coast Starlight would also travel on the Point Defiance Bypass route for a total of two Coast Starlight service train trips. The speed of these passenger trains would be up to 79 mph.



**Exhibit 1. Build Alternative Components**





## Chapter 2 – Methodology

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Under 64 Federal Register 28550, an EA for a Build Alternative by the Federal Railroad Administration (FRA) requires review for potential environmental effects to existing and planned land uses that may result from a proposed rail project.

This section outlines the methodology used for this report and identifies the study area boundaries, information sources and applicable land use laws and regulations that were reviewed. This report also provides an evaluation of consistency of the Project with the applicable regulations. The information reviewed was used to evaluate potential effects by the Project.

### **Why should land use be reviewed?**

Transportation is a key component on how and where land development occurs and land uses are located. Transportation projects can have direct or indirect effects on both existing and planned land uses of a community, municipality, or region. Proposed transportation projects must consider their consistency and compatibility with existing land uses, as well as adopted comprehensive plans (planned or future land use) and regulations.

As required by state law, comprehensive plans are adopted by cities and counties and include goals, policies and land designations that identify where planned uses would be located for the next 20 years. These plans include general goals and policies to help guide the location or improvement of transportation facilities in coordination with existing and future land use patterns, and include maps that generally illustrate the intended future land use pattern.

Cities and counties also adopt zoning and other development regulations that implement the comprehensive plan's goals, policies and map designations by providing specific land use and development standards that apply to a specific area.

## What key regulations apply to land use planning and consistency analyses?

### What key federal regulations apply?

The following federal regulations reviewed for this report and analysis include:

- National Environmental Policy Act (NEPA) Section 1506.2(d) and 2506.1(c)
- Interstate Commerce Act (ICA)

Other laws that protect public lands include:

- Sections 4(f) and 6(f)

### National Environmental Policy Act

The National Environmental Policy Act (NEPA Section 1506.2(d) and 2506.1(c) requires analysis and a description of possible conflicts or inconsistencies between the Project and applicable federal, state, and local land use policies, plans and regulations. If an inconsistency, effect or conflict resulting from the Project is identified, a discussion is needed that describes the extent of effect or inconsistency and proposed measures to reduce or reconcile the conflict or inconsistency.

### Interstate Commerce Act

The Interstate Commerce Act (ICA) was originally enacted in 1887 to govern the railroad industry and it created the Interstate Commerce Commission (ICC). The ICC oversaw conduct of the railroad industry, including restricting monopolies and promoting fair, nondiscriminatory practices and rates.

Various amendments to the ICA were adopted over the last century. Amendments in the 1980s and 1990s focused on deregulation, and in 1995, the ICC was dissolved and its powers were transferred to the National Surface Transportation Board (STB).

Under Chapter 49 USC 10901, the STB is empowered to authorize the construction and operation of rail lines.<sup>4</sup> This includes additions to and extensions of existing rail lines under certain criteria. Under Chapter 49

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<sup>4</sup> Title 49 – Transportation Subtitle IV – Interstate Transportation, Part A – Rail Chapter 109 – Licensing, Sec. 10901 (c) The Board shall issue a certificate authorizing activities for which such authority is requested in an application filed under subsection (b) unless the Board finds that such activities are inconsistent with the public convenience and necessity. Such certificate may approve the application as filed, or with modifications, and may require compliance with conditions (other than labor protection conditions) the Board finds necessary in the public interest.

USC 10501(b), the STB has jurisdiction over rail transportation within a state over a state or local regulation that would interfere with interstate commerce such as rail construction or operations.<sup>5</sup> In enacting the ICA, Congress expressed the intent to regulate railroad operations at a federal level, and not a state or local level. This is sometimes referred to as the federal preemption authority over the applicability of state and local laws and regulations to federal projects.

#### Section 4(f)

Projects using federal funds or requiring a permit or license from the USDOT must meet the requirements of Section 4(f) of the USDOT Act of 1966 (49 USC 303). Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 provides protection to public parks, recreation lands, wildlife and waterfowl refuges, and historic sites. To qualify as a Section 4(f) resource, the site must meet the following criteria:

- It must be a publicly owned park, recreation area, or wildlife and waterfowl refuge
- If a park or recreation area, it must be open to the public
- Its major purpose is for park/recreation or wildlife and waterfowl refuge
- It is significant as a park, recreation area, or wildlife and waterfowl refuge

In addition, the following criterion qualifies a site as a Section 4(f) resource:

- It is significant as a historic site

To comply with the USDOT Act of 1966, an evaluation of affects to a significant publicly-owned park, recreation area, wildlife or waterfowl refuge, or historic site must be completed.

Because no acquisition of park, recreation area, wildlife and waterfowl, or historic sites is proposed as a part of the Project, Section 4(f) provisions do not apply to the Project.

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<sup>5</sup> This regulation defines “local government authority” as: (A) a political subdivision of a State; (B) an authority of at least 1 State or political subdivision of a State; (C) an Indian tribe; and (D) a public corporation, board, or commission established under the laws of a State. 1) transportation by rail carriers, and the remedies provided in this part with respect to rates, classifications, rules (including car service, interchange, and other operating rules), practices, routes, services, and facilities of such carriers; and (2) the construction, acquisition, operation, abandonment, or discontinuance of spur, industrial, team, switching, or side tracks, or facilities, even if the tracks are located, or intended to be located, entirely in one State, is exclusive. Except as otherwise provided in this part, the remedies provided under this part with respect to regulation of rail transportation are exclusive and preempt the remedies provided under Federal or State law.

## Section 6(f)

Section 6(f) refers to the Land and Water Conservation Funds Act (LWCFA) that distributes grant money for purchase or improves publicly-owned outdoor recreational properties. Section 6(f) of the LWCFA concerns transportation projects that propose effects to or the permanent conversion of outdoor recreational lands that were acquired or developed with LWCFA funds and prohibits conversion of these properties acquired or developed with these grants to a non-recreational purpose without the approval of the U.S. Department of Interior's National Park Service (NPS).

Because parks and recreation areas often receive LWCFA assistance, Section 6(f) provisions often apply to Section 4(f) resources as well. Section 6(f) applies to any federal agency action, whereas Section 4(f) applies only to USDOT actions. Section 6(f) is more stringent about minimization. NPS involvement ensures that lands of equal value, location, and usefulness are provided as conditions to approval of Section 6(f) land conversions.

Because no acquisition of park property is proposed as a part of the Project, Section 6(f) provisions do not apply to the Project.

### **Which key state regulations apply?**

The following state regulations reviewed for this report and analysis include:

- Washington State Environmental Policy Act (SEPA), Revised Code of Washington (RCW) 43.21C
- Shorelines Management Act (SMA), RCW 90.58

#### State Environmental Policy Act

The SEPA, RCW 43.21C, adopted in 1971, requires new land uses to be reviewed for consistency with and effects to the social, natural and economic environments that may be affected by the proposal. This is similar to the NEPA requirements previously described.

The Washington State Growth Management Act (GMA), RCW 36.70A,<sup>6</sup> adopted in 1990, required the larger, faster growing cities and counties within the State to adopt land use plans and regulations to guide future land development over the next 20-year period. These complex plans reflect community values, while also addressing mandatory planning elements, such as land use, economic, capital facilities, resource lands, critical areas and transportation. Coordination and consistency of the

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<sup>6</sup> *Washington State Legislature, Office of the Code Reviser*

adopted plans with other mandatory elements within the plan is required, in addition to bordering jurisdictions and regional transportation planning efforts.

RCW 36.70A.103 of the GMA was adopted in 1991 requires state agencies to comply with local comprehensive plans and development regulations. Section RCW 36.70A.200 of the GMA was also adopted in 1991 and requires that cities and counties identify and not preclude the siting of essential public facilities, which include transportation facilities and services as defined under RCW 47.06.140.<sup>7</sup> The Project qualifies as a transportation facility of statewide significance.

Critical areas are defined by GMA under RCW 36.70A.030 and include the following natural areas and ecosystems: wetlands; areas with a critical recharging effect on aquifers used for potable water; fish and wildlife habitat conservation areas; frequently flooded areas; and geologically hazardous areas.

To comply with GMA and local comprehensive planning policies, local jurisdictions adopted Critical Areas Ordinances (CAO) that specify standards for new developments within in or near designated critical areas. For the purposes of this report, only fish and wildlife habitat conservation areas and aquifer recharge areas are researched and discussed as the other critical areas are discussed in other discipline reports prepared for the Project.

### Shorelines Management Act

The SMA, RCW 90.58, adopted in 1971, requires cities and counties with shorelines that are located within their boundaries to adopt a Shoreline Management Program (SMP). Shorelines generally include water features such as streams with a flow of at least 20 cubic feet per second and lakes that are at least 20-acres in size, along with adjacent wetlands. The locally-

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<sup>7</sup> RCW 47.06.140. *Transportation facilities and services of statewide significance – Level of Service standards. (1) The legislature declares the following transportation facilities and services to be of statewide significance: Highways of statewide significance as designated by the legislature under chapter 47.05 RCW, the interstate highway system, interregional state principal arterials including ferry connections that serve statewide travel, intercity passenger rail services, intercity high-speed ground transportation, major passenger intermodal terminals excluding all airport facilities and services, the freight railroad system, the Columbia/Snake navigable river system, marine port facilities and services that are related solely to marine activities affecting international and interstate trade, key freight transportation corridors serving these marine port facilities, and high capacity transportation systems serving regions as defined in RCW 81.104.015. The department, in cooperation with regional transportation planning organizations, counties, cities, transit agencies, public ports, private railroad operators, and private transportation providers, as appropriate, shall plan for improvements to transportation facilities and services of statewide significance in the statewide multimodal transportation plan. Improvements to facilities and services of statewide significance identified in the statewide multimodal transportation plan, or to highways of statewide significance designated by the legislature under chapter 47.05 RCW, are essential state public facilities under RCW 36.70A.200.*

adopted SMP includes shoreline environmental designations that identify uses allowed in or near shorelines, in addition to minimum development standards and conditions that must be met by the proposed development. In 1995, the GMA was amended to require integration with GMA so that the goals and policies of the SMA are incorporated into and consistent with the local comprehensive plan, resulting in further consistency of regulations that apply to land development.

## **How was the study area defined for this report?**

For the Project (the Build Alternative) the study area included land uses within 500 feet of each side of the Project footprint, and the proposed relocation of the existing Tacoma Amtrak Station to the Tacoma Dome Station at Freighthouse Square. The study area is shown in Exhibit 2.

The northern limit of the Project is TR Junction near the I-5 overcrossing of the Puyallup River and East Bay Street in Tacoma. The southern limit of the Project is at the Nisqually Junction.

The Project was previously evaluated in 2007. At that time, the northern terminus was South 66<sup>th</sup> Street and southern terminus was Nisqually Junction. The study area for this report extends farther north to incorporate the expanded project and station relocation.

## **How was the study area defined for the existing route, the No Build Alternative?**

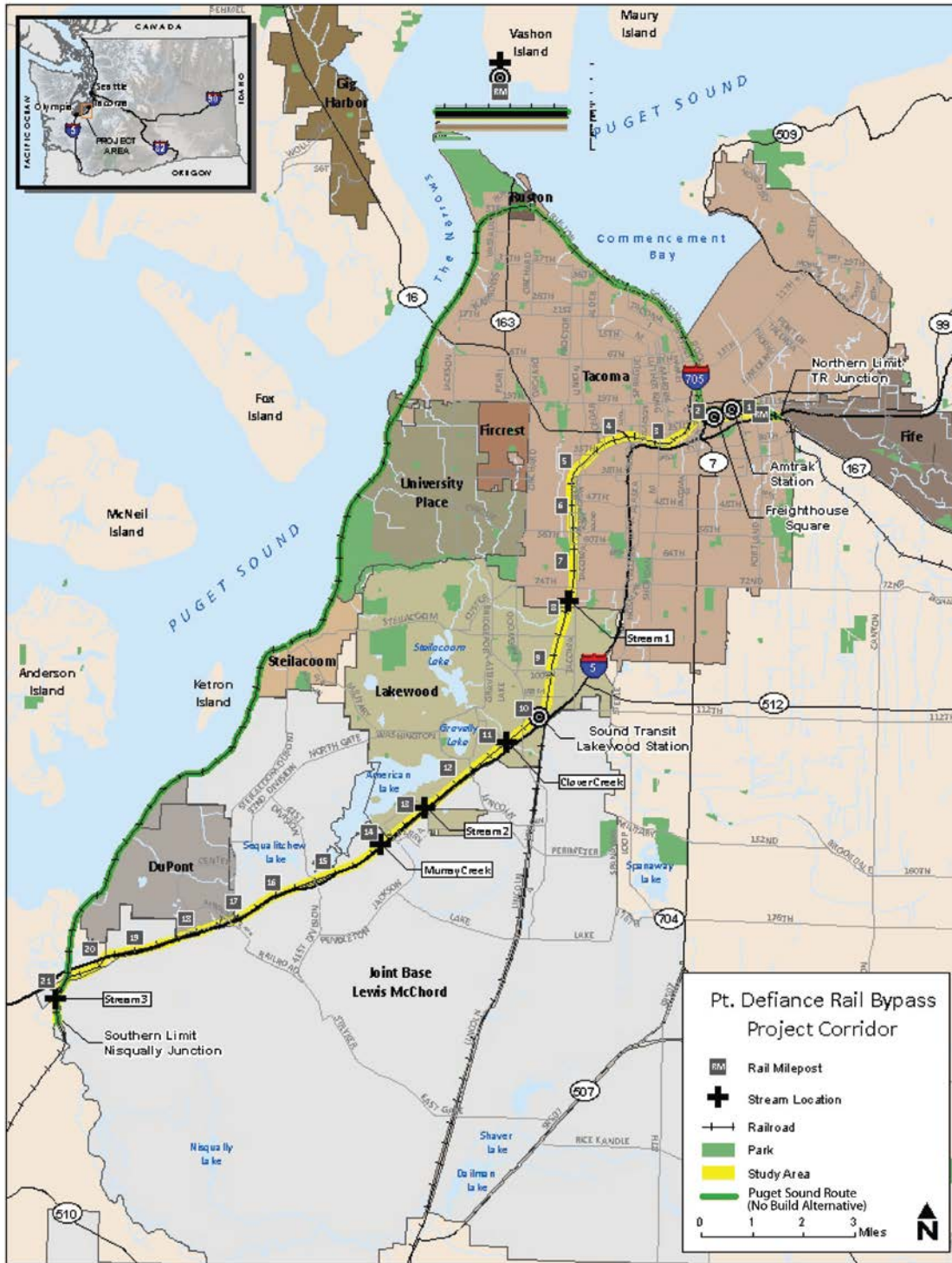
The study area for this report includes the existing route (No Build Alternative) consisting of the existing BNSF railroad right-of-way around Point Defiance used by Amtrak passenger trains and also includes the proposed corridor currently used as by existing freight and commuter trains. Additional background information and a description of the existing physical environment of the existing Amtrak passenger route can be found in the *Point Defiance Shoreline Alternative Technical Memorandum, May 2011*.<sup>8</sup>

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<sup>8</sup>WSDOT 2011



Exhibit 2. Study Area



## What Information was researched?

The research and analysis conducted for this report follows the procedures outlined in the WSDOT *Environmental Procedures Manual* (June 2011), Chapter 450 (Land Use) and includes the following elements:

- Existing Land Uses
- Planned Land Uses (Comprehensive and/or Planned Use Plans and Policies) and Future Conditions
- SMA Environment and CAO Designations
- Development Trends

## How was information collected and how was the analysis conducted?

Information and analysis on existing and planned land uses was based on the review of the FRA and WSDOT study area maps, preliminary drawings, aerial photographs, inventories, WSDOT and Internet Geographic Information System (GIS) data obtained from local agencies, and of land use regulations, plans, and zoning codes. Additionally, a windshield survey conducted on March 10, 2011.

The aerial photographs, GIS data, plans, and zoning codes were used to analyze existing conditions and evaluate potential effects that could result from the Project. The plans and codes were also reviewed to evaluate the project's relationship to and consistency with existing regulations, goals, and policies.

Comprehensive plan goals and policies, and zoning and SMA/CAO regulations reviewed for this report were generally obtained online from the following agency websites:

- City of Tacoma
  - Comprehensive Plan
  - Tacoma Dome Area Plan
  - Zoning Code
  - Shoreline Management
  - Critical Areas
- City of Lakewood
  - Comprehensive Plan
  - Tillicum Neighborhood Plan
  - Zoning Code
  - Shoreline Management
  - Critical Areas
- City of DuPont
  - Comprehensive Plan

- Zoning Code
- Pierce County
  - Countywide Planning Policies
  - Comprehensive Plan
  - Zoning Code
  - Shoreline Management
  - Critical Areas Ordinance
- Military Areas
  - Joint Base Lewis McChord Growth Coordination Plan, Land Use Appendix
- Other
  - Puget Sound Regional Council, *Vision 2040*

## **How does this report relate to previous environmental studies completed for the Project?**

This discipline report builds upon and updates a previous technical memorandum that was completed in August 2007. Development of this report also included the review of the following environmental and land use analyses recently completed for rail related projects within or related to the study area:

- Pacific Northwest Rail Corridor, Washington State Segment – Columbia River to the Canadian Border, Finding of No Significant Impact, USDOT FRA and WSDOT (December 2010)
- Sound Transit Lakewood-to-Tacoma Commuter Rail D-M Street Improvement Project, Tacoma WA, Finding of No Significant Impact (December 2, 2009)
- Pacific Northwest Rail Corridor. Washington State Segment – Columbia River to the Canadian Border. Program Environmental Assessment (September. 2009)
- Sound Transit D Street to M Street Commuter Rail, NEPA Environmental Assessment, FRA (September 9, 2009)
- Point Defiance Bypass Project, Environmental Summary, WSDOT (May 2008)
- Sound Transit Lakewood-to-Tacoma Commuter Rail D-M Street Improvement Project, Tacoma WA, NEPA Environmental Assessment (May 2008)
- Sound Transit Lakewood to Tacoma Commuter Rail and SR-512 Park and Ride Expansion NEPA/SEPA Final Environmental Impact Statement, US FTA, Sound Transit, The Central Puget Sound Regional Transit Authority, Sections 2.9, 3.9 and 4.9 (May 2002)

## **What coordination was used in the land use analysis?**

Coordination with local jurisdictions is essential to identify potential effects of the Project that may affect current and planned land uses. Development of this report included coordination with other authors responsible for the transportation, noise and vibration, water resources, fish, wildlife and vegetation, visual, socioeconomic and environmental justice, public services and utilities, and air quality discipline reports prepared for the Project. Development of this report also included review of agency comments received on the Project and personal communications with agency experts

# Chapter 3 – Affected Environment

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This section provides an overview of existing land uses in the study area for the Project which is shown in Exhibit 2. The information reviewed was used to evaluate potential effects to these existing land uses.

Under the existing conditions, Amtrak passenger trains use the BNSF Puget Sound route (No Build Alternative) which is primarily used as a freight corridor. As described in Chapter 1, the Project route would use an existing rail corridor comprised of the Prairie and American Lake rail lines constructed in 1873 and 1891. The proposed route is also primarily used as a freight corridor except for the area north of the Lakewood Station which also used by commuter rail.

The existing land use characteristics of the existing route (No Build Alternative) were not analyzed in detail, but the uses generally consist of a mix of park, residential, forestry, shoreline, wildlife refuges, and open areas adjacent to an existing railroad corridor. These uses would not change if the Project is not built. Most of the existing route is located along the Puget Sound shoreline.

## **What are the general existing land use characteristics of the study area for the Project?**

The 20-mile-long study area can be described as an existing railroad corridor that generally parallels and is west of the I-5 transportation corridor and is located within both incorporated and unincorporated areas.

Approximately two-thirds of the Project length is located within or adjacent to the incorporated cities of Tacoma, Lakewood, and DuPont. The remainder lies within unincorporated area of Pierce County, the majority of which is occupied by US Joint Base Lewis McChord (JBLM) and Camp Murray National Guard military complexes.

The study area is approximately 2,563 acres in size and is generally comprised as follows:

- 60 percent lies within incorporated areas of the Cities of Tacoma and Lakewood (34% and 26%, respectively)
- 40 percent lies within unincorporated Pierce County
- 24 percent of lies within a designated military reservation located within both incorporated and unincorporated areas (percentages

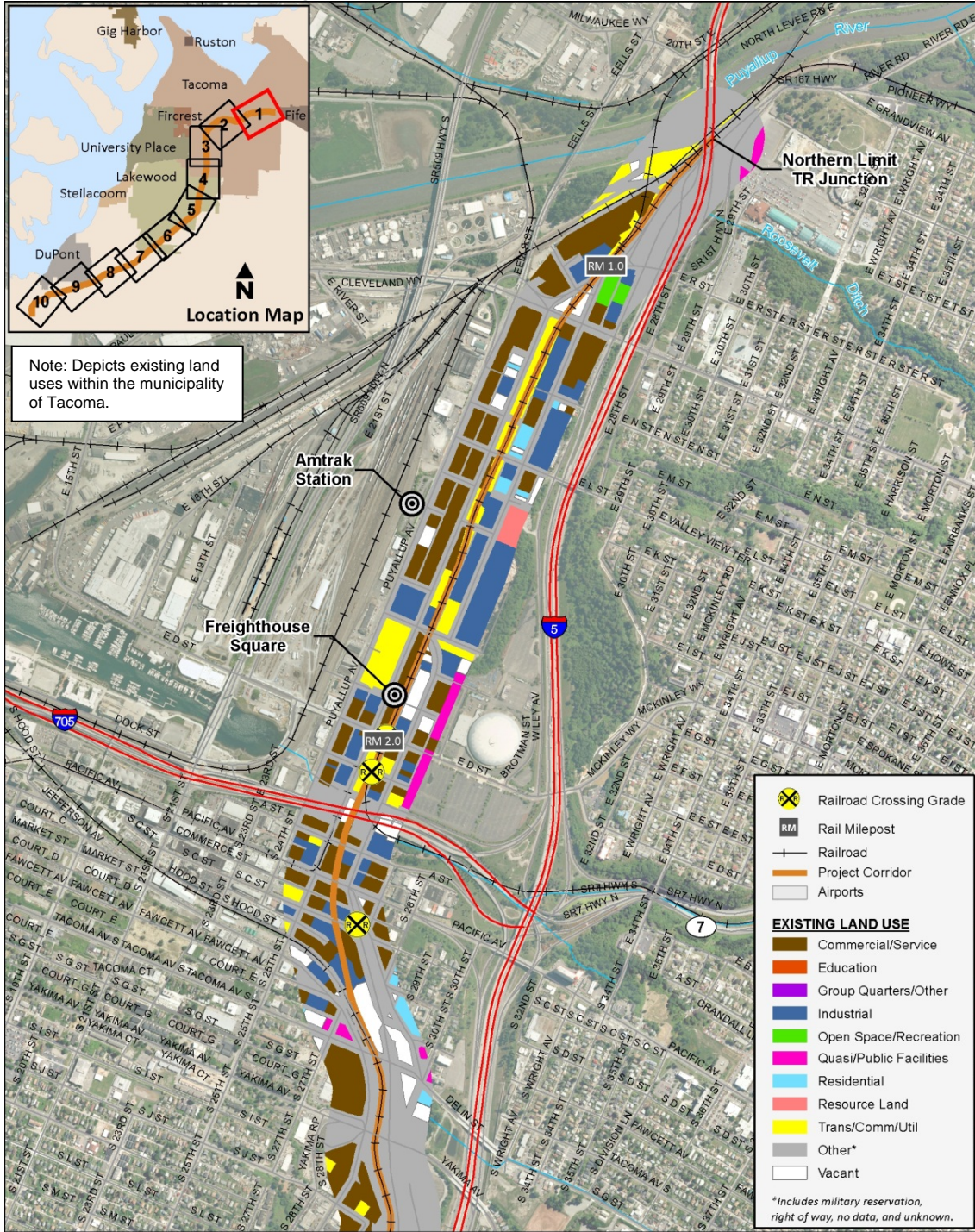
exceed 100 because much of the military reservation is within unincorporated Pierce County).

The existing land uses that are adjacent to the Project are generally categorized as:

- Heavy and light industrial and manufacturing
- Commercial – including retail, office, restaurant, and services
- Educational – including elementary and middle schools, technical, and post-secondary/college
- Open space and recreation – including open areas and drainages;
- Single- and multi-family residential
- US military reservation – including residential, commercial, and operational/training areas
- Transportation and utility– including transportation system rights of way, electrical substations and/or other utility support structures or improvements.

Further description of the existing land uses located within the unincorporated and incorporated areas are provided below and are shown in Exhibit 3, Panels 1-10.

**Exhibit 3. (Panels 1-10) Existing Land Uses**



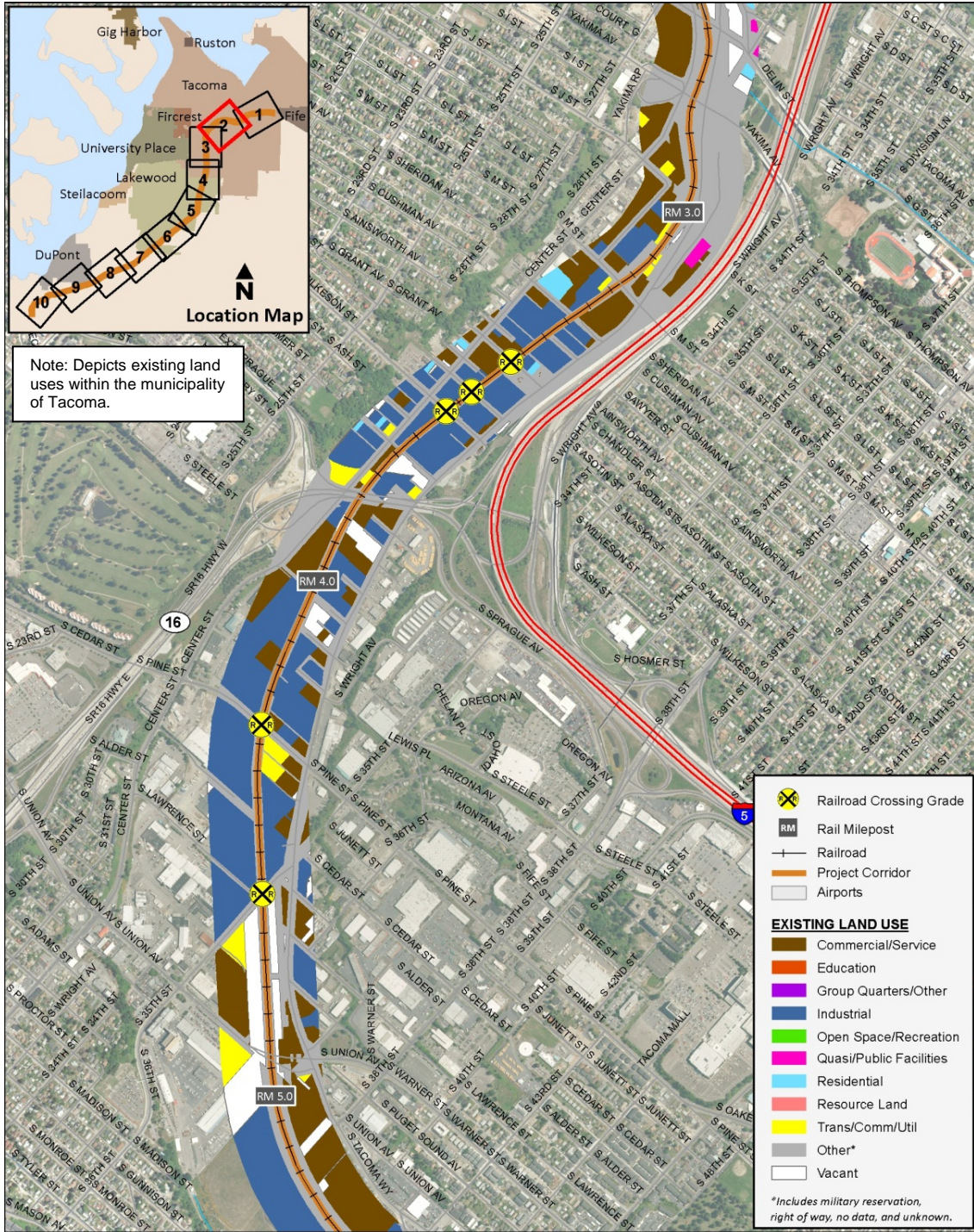
**Pt. Defiance Rail Bypass  
Existing Land Use**

Panel 1

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



**Pt. Defiance Rail Bypass  
Existing Land Use**

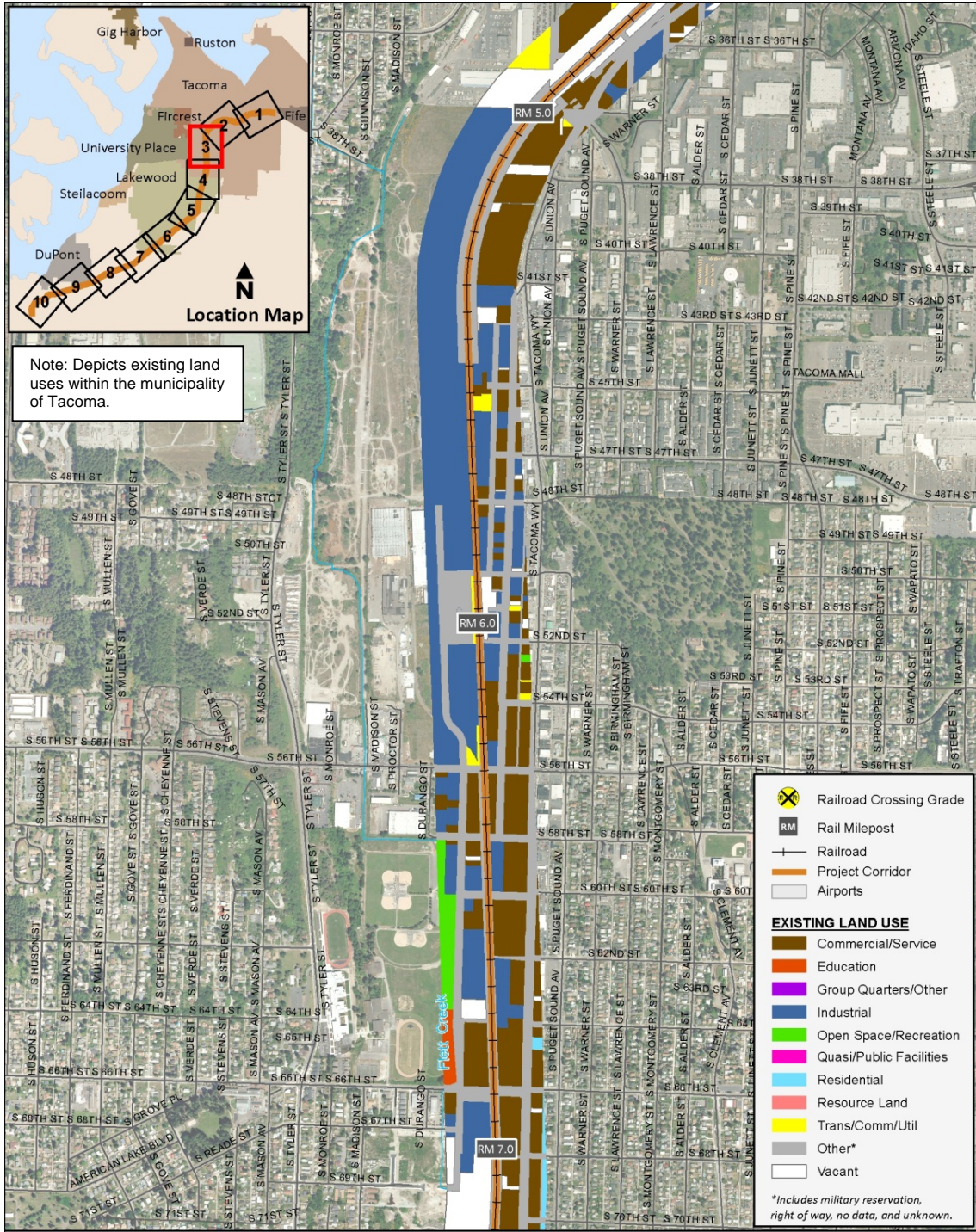
Panel 2

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation





**Pt. Defiance Rail Bypass  
Existing Land Use**

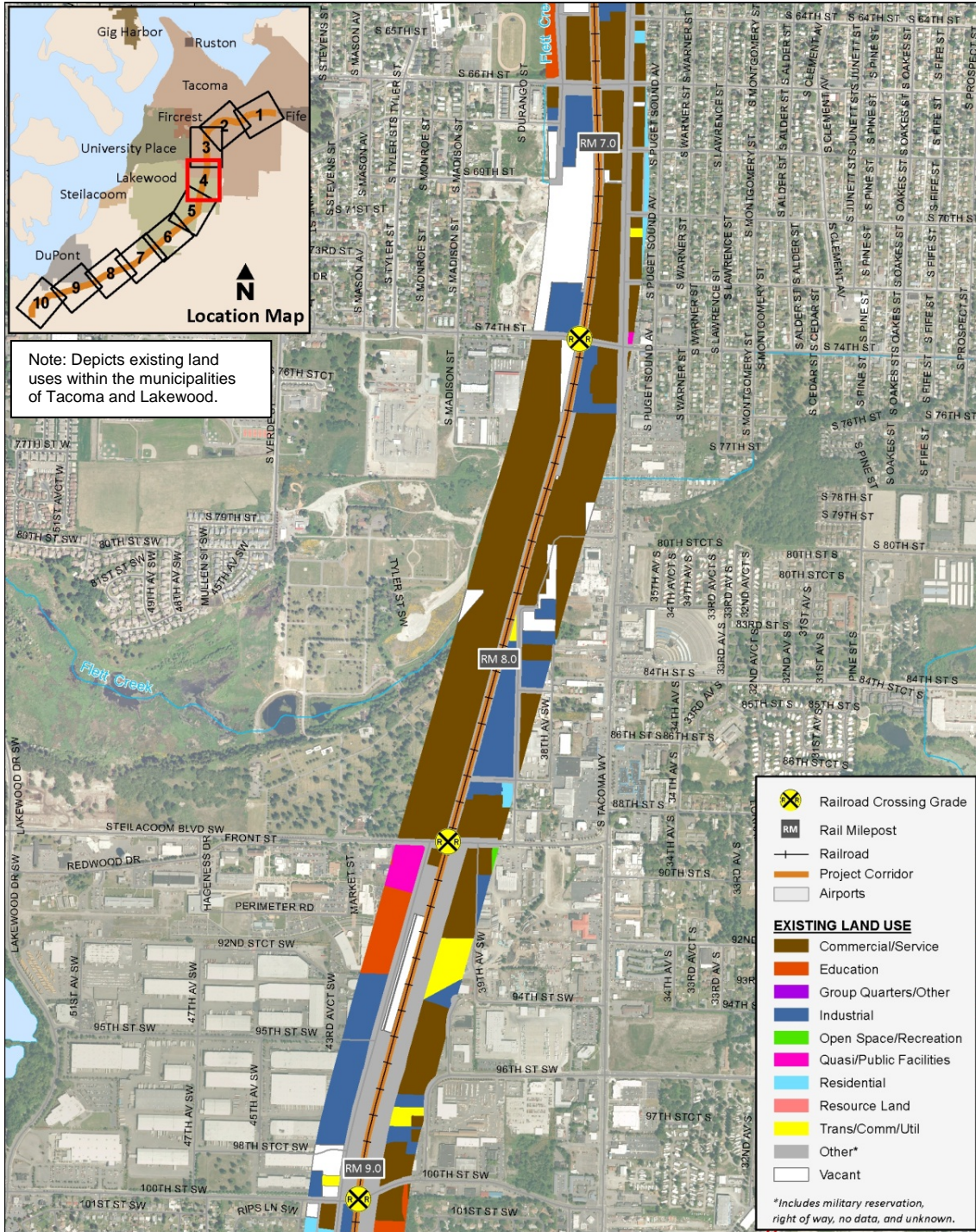
Panel 3

February 6, 2012



0 0.25 0.5 Miles

Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



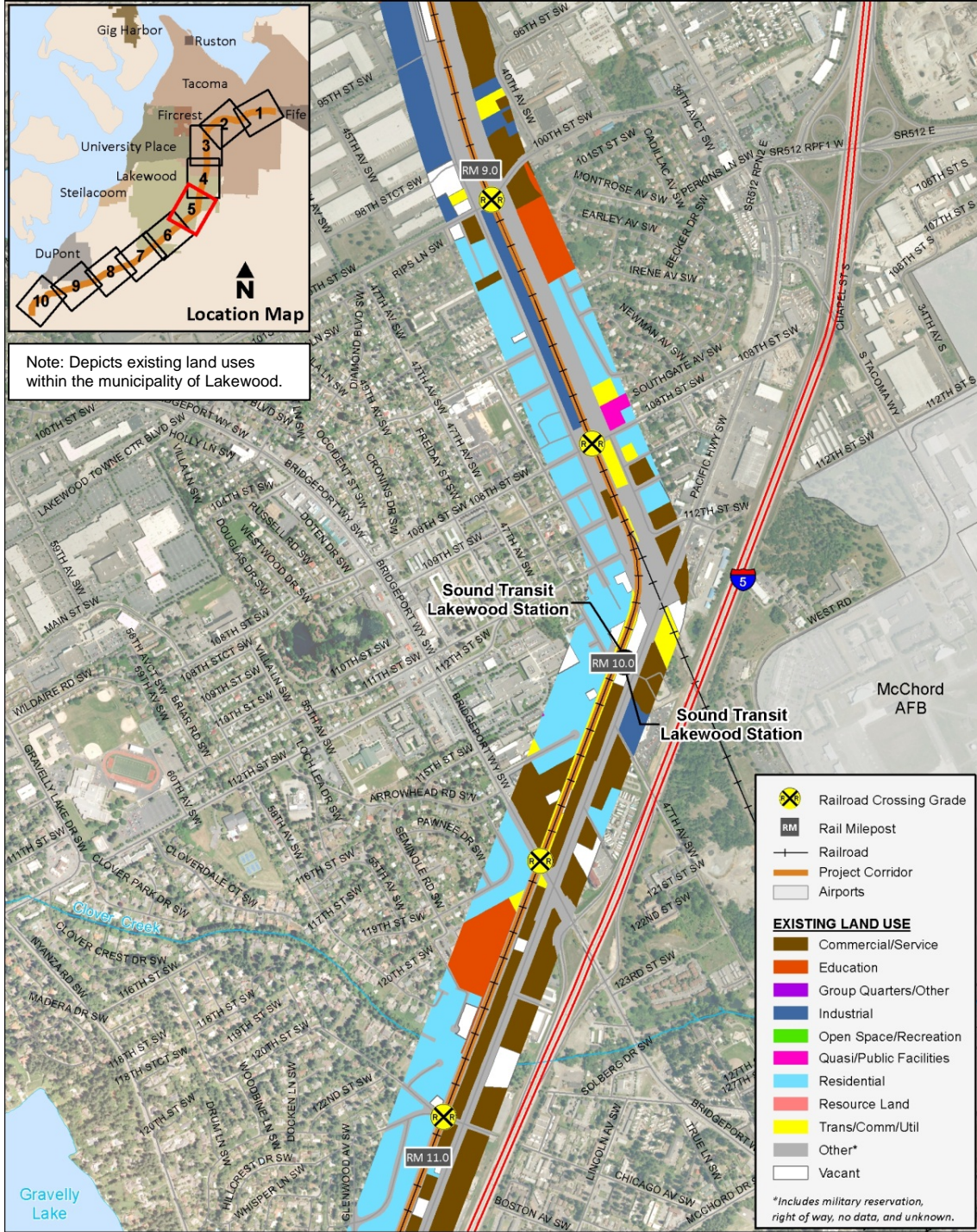
**Pt. Defiance Rail Bypass  
Existing Land Use**

Panel 4

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



**Pt. Defiance Rail Bypass  
Existing Land Use**

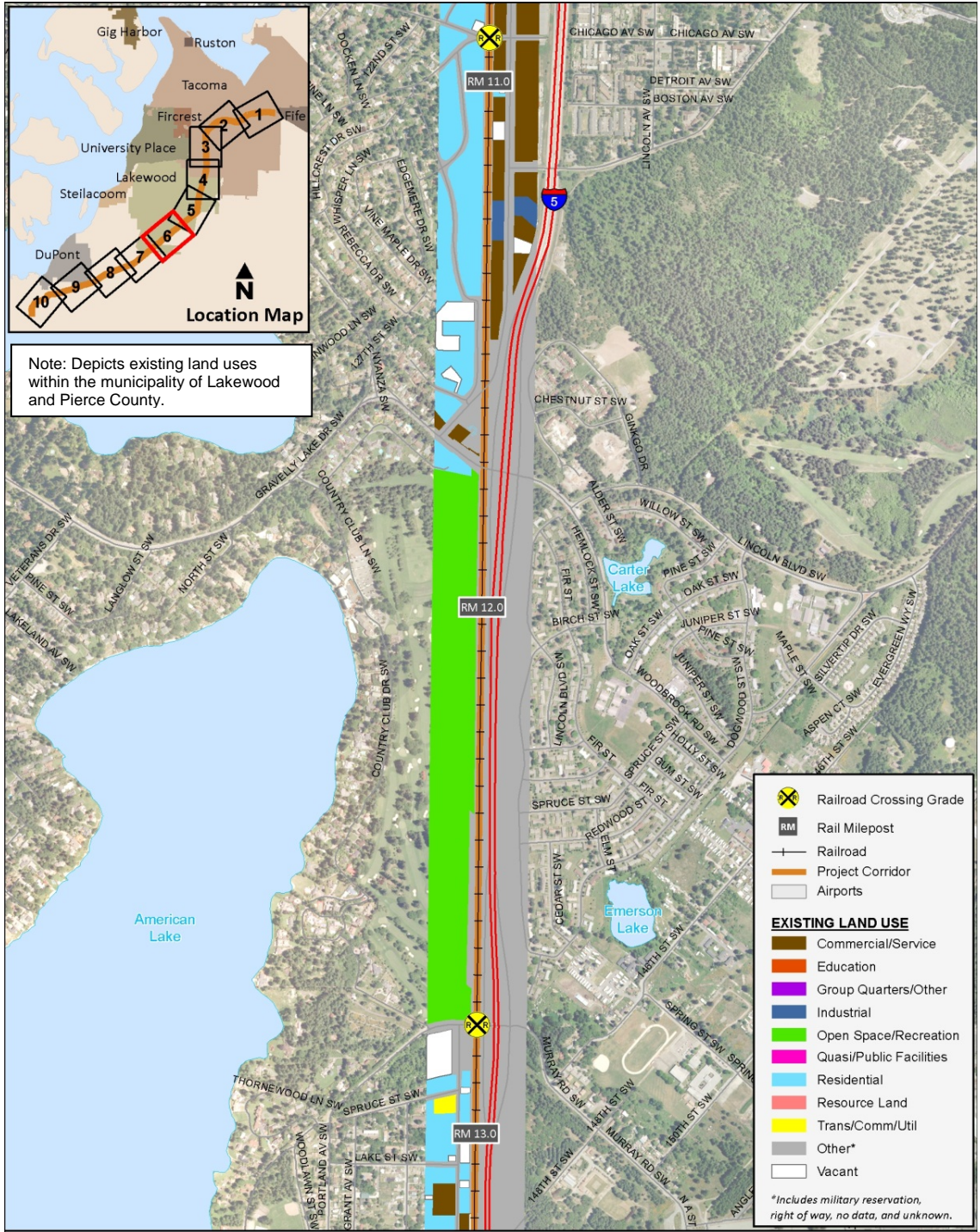
Panel 5

February 6, 2012



0 0.25 0.5 Miles

Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



Note: Depicts existing land uses within the municipality of Lakewood and Pierce County.

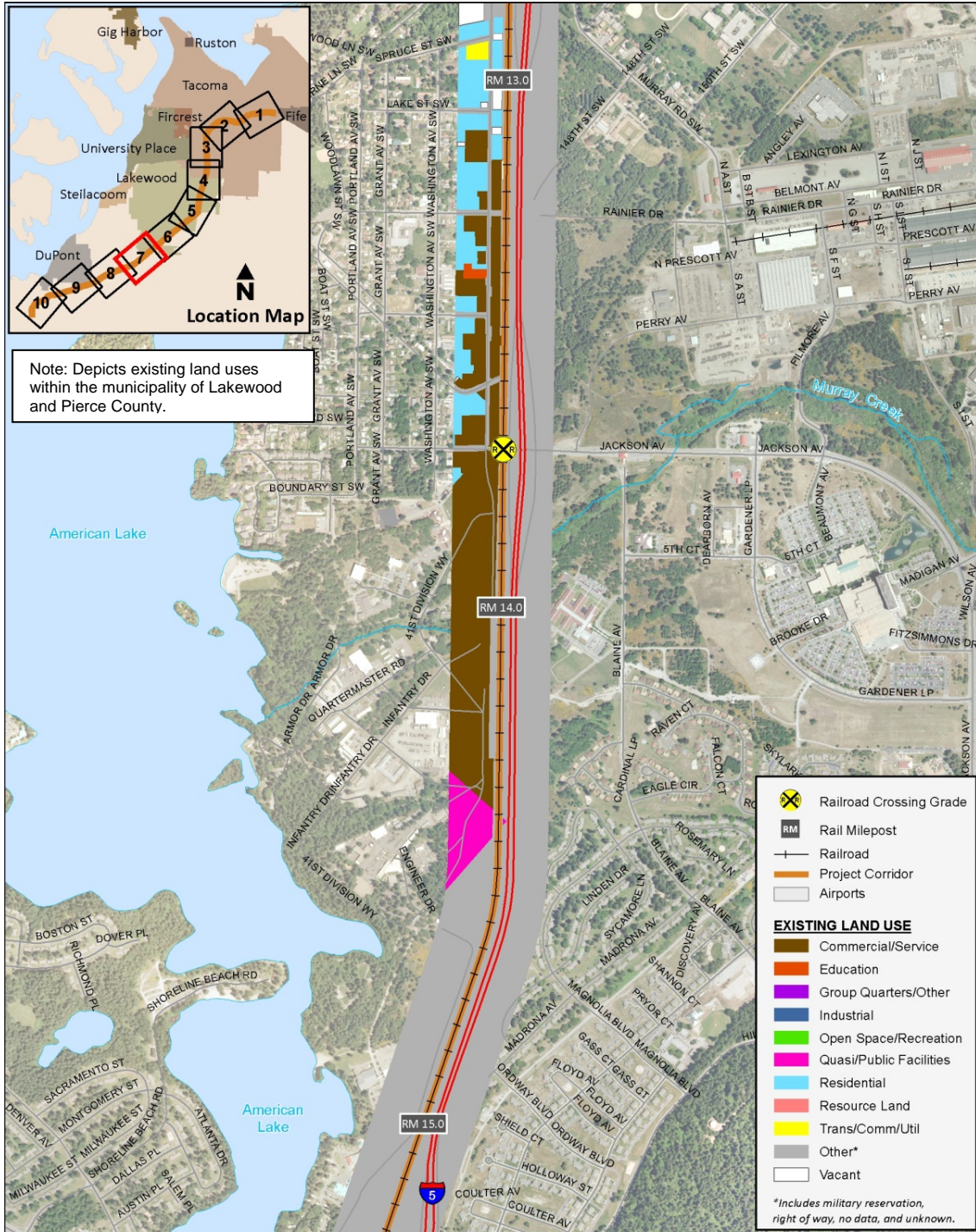
**Pt. Defiance Rail Bypass  
Existing Land Use**

Panel 6

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



**Pt. Defiance Rail Bypass  
Existing Land Use**

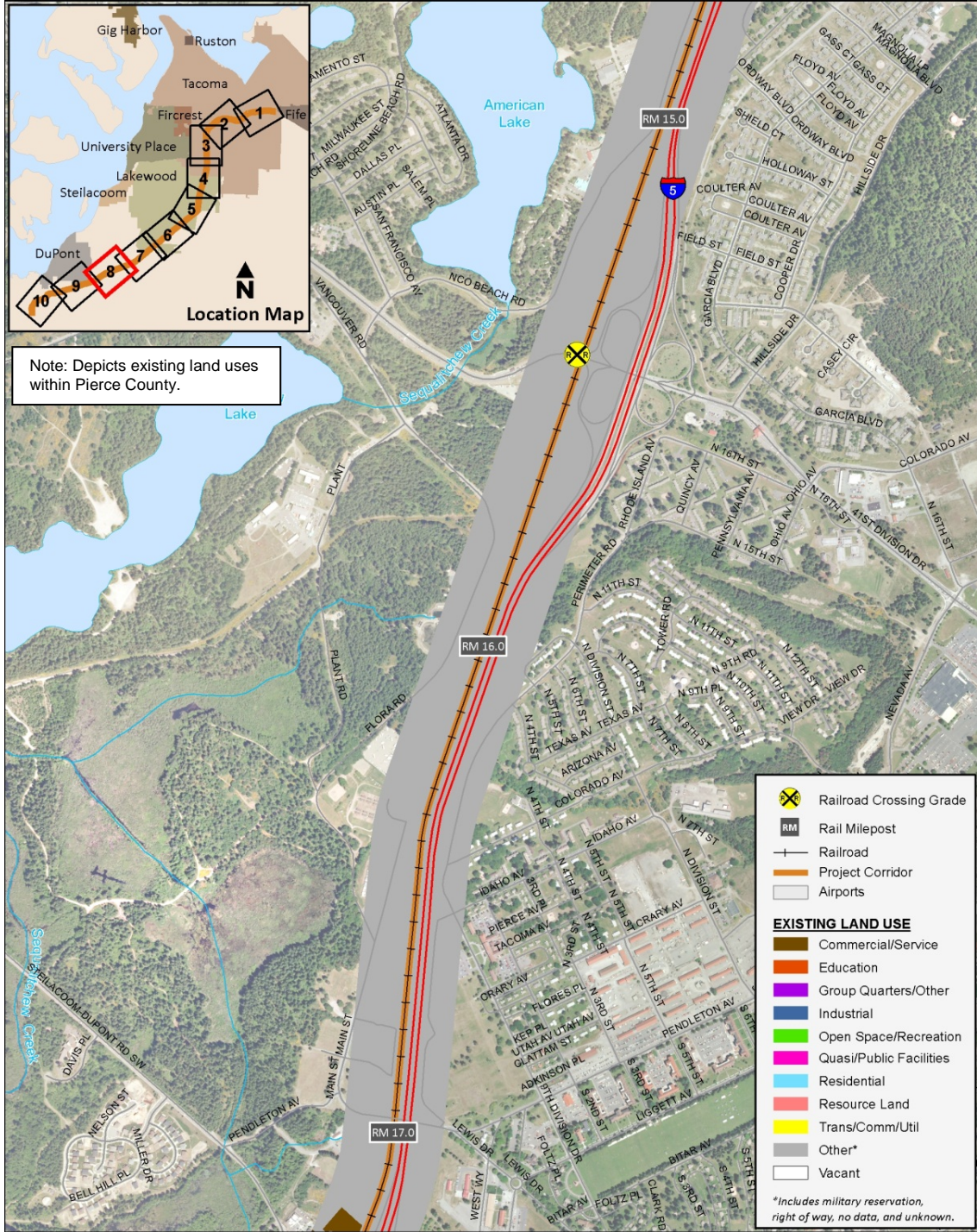
Panel 7

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation





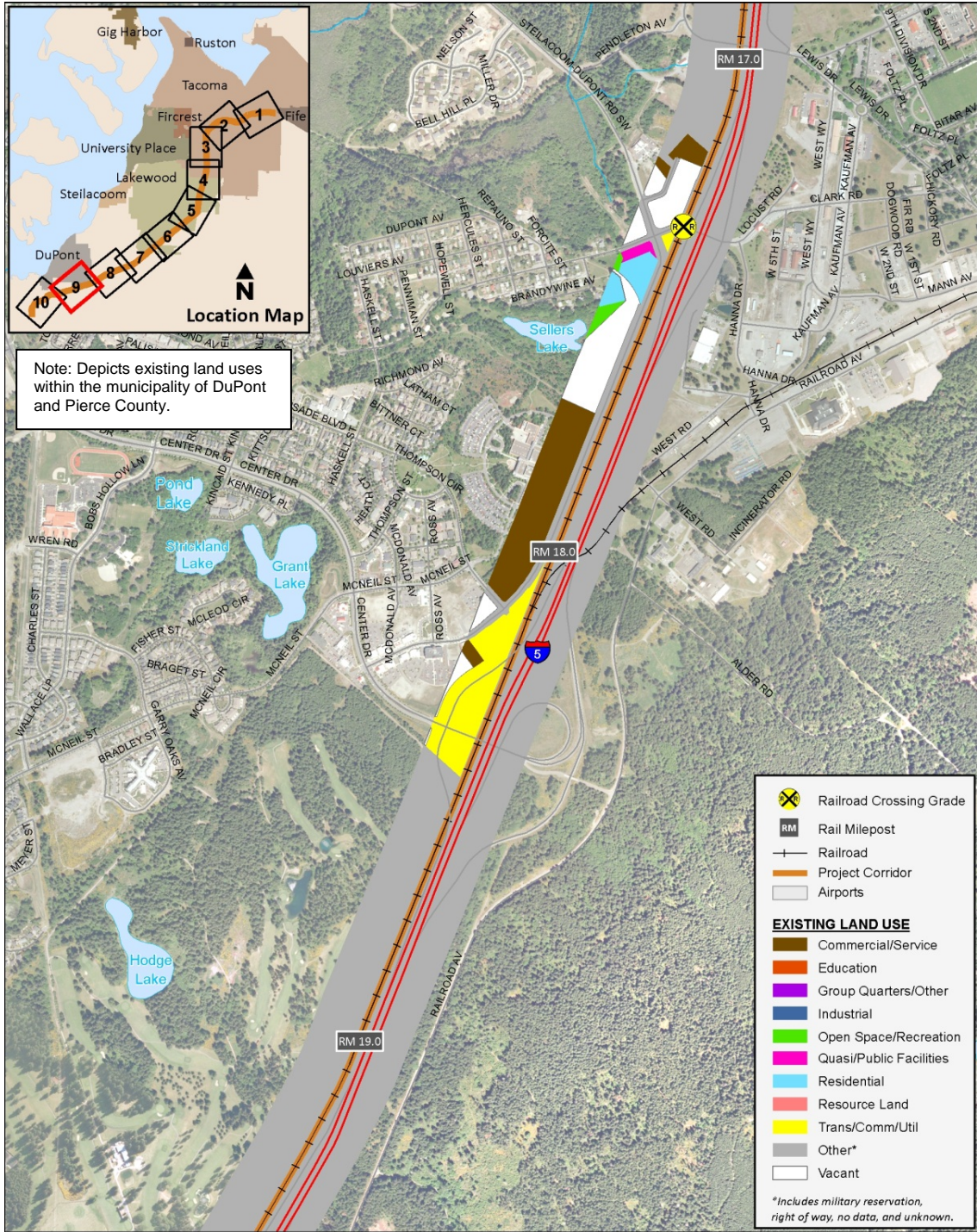
**Pt. Defiance Rail Bypass  
Existing Land Use**

Panel 8

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



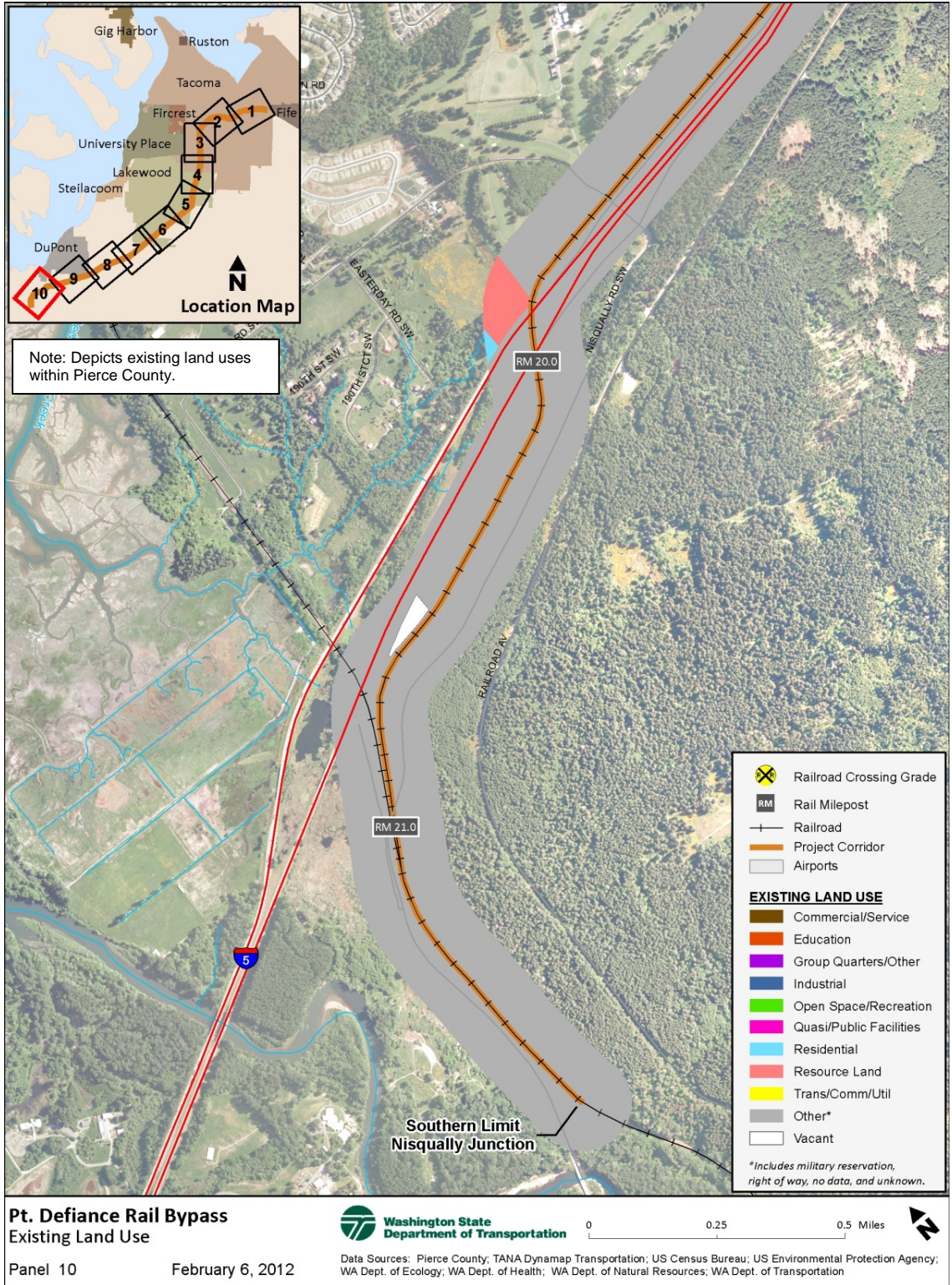
**Pt. Defiance Rail Bypass  
Existing Land Use**

Panel 9

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



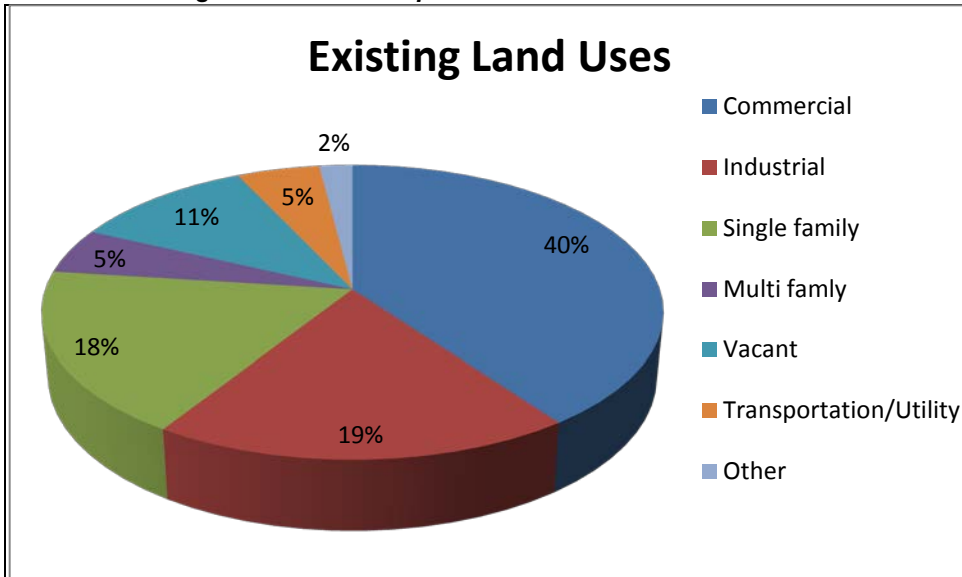


## What are the existing land uses within the incorporated areas of Tacoma and Lakewood?

Exhibit 3 (Panels 1-7) shows the existing land uses within the city limits of Tacoma and Lakewood. In addition, Exhibit 8 and Exhibit 9 provide information about the number of existing land uses and their combined percentages within the incorporated areas of Tacoma and Lakewood. The majority of commercial, industrial, and transportation/utility uses are within the city limits of Tacoma while the majority of single and multi-family residential uses are located within Lakewood. The total number of the various existing land use categories within this segment is as follows:

- Commercial: 738 uses (40 percent of total)
- Industrial: 353 uses (19 percent)
- Single-family: 329 uses (18 percent)
- Multi-family: 96 uses (5 percent)
- Vacant: 193 uses (11 percent)
- Transportation/Utility 86 uses (5 percent)
- Other: All other remaining categories including recreation, parks, open space 39 uses (2 percent)

**Exhibit 4. Existing Land Uses –Incorporated Areas**



**Exhibit 5. Existing Land Uses within incorporated areas**

Land Use Category <sup>9</sup>	Number of Uses		
	Tacoma	Lakewood	Total
Commercial / Service	520	218	738
Industrial	332	21	353
Single Family	57	272	329
Vacant	143	50	193
Multi-family	11	85	96
Transportation-Utilities	73	13	86
Open Space/Recreation/ Resource	14	7	21
Quasi-public/Public	10	3	13
Education	1	4	5
<b>TOTAL</b>	<b>1,161</b>	<b>673</b>	<b>1,834</b>

Beginning at the northern end of the study area and proceeding south through Tacoma and Lakewood, additional description of the land uses within the study area are summarized below.

#### **What are the characteristics within the city limits of Tacoma?**

For the portion of the study area that lies within the city limits of Tacoma, the majority (73%) of existing land uses are commercial and industrial. Vacant lands comprise 12%. Transportation/utility uses and residential uses (single-and multi-family) each comprise 6%. Exhibit 3 (Panels 1-4) shows the location of the existing land uses located within Tacoma.

#### **Northern Terminus at TR Junction to South 66<sup>th</sup> Street Southwest**

This segment includes the Tacoma Amtrak Station relocation from Puyallup Avenue to Freighthouse Square at 430 East 25<sup>th</sup> Street and covers the area located north of the study area boundary identified in the Point Defiance Bypass Environmental Summary and NEPA Documented Categorical Exclusion (South 66<sup>th</sup> Street Southwest).

Land uses on both sides of the existing railroad corridor include industrial and commercial (service, retail, and restaurant), with a few residences and vacant lots. This segment contains multiple, major transportation-oriented uses.

Examples of land uses in the vicinity include the major industrial facilities (e.g., Port of Tacoma, Foss Waterway) and regional commercial uses (e.g., Tacoma Dome, *Sounder* Tacoma Dome Station/Freighthouse Square, Tacoma “Train to the Mountain” service, Greyhound bus terminal,

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<sup>9</sup> Pierce County 2011

Burlington Northern rail yard). Other uses include: Tacoma Goodwill Industries, Tacoma Mall, Pierce County government offices, and a Superfund site. This segment also includes the I-5/I-705 and I-5/US 16 interchanges.

Adjacent uses and structures within this segment are generally in close proximity to the existing rail corridor. Exceptions that have greater setbacks to nearby buildings or have vegetated open areas between the railroad tracks and adjacent uses are from East Bay Street/East “R” Street to northern terminus and also from Tacoma Avenue South to South “M” Street.

### Station Relocation

The land uses adjacent to the existing Tacoma Amtrak Station are similar to those near Freighthouse Square due to the proximity of the two sites. These land uses include the Sound Transit station, restaurants, retail shops and vacant shops.

### South 66<sup>th</sup> Street, Tacoma, to South 80<sup>th</sup> Street, Lakewood

Land uses on both sides of the existing railroad corridor in this segment include industrial, commercial and vacant lots.

### **What are the characteristics within the city limits of Lakewood?**

For the segment of the study area that lays within the city limits of Lakewood, the majority (53 percent) of existing land uses is residential (single- and multi-family). Commercial and industrial land uses comprise 35 percent. Vacant lands comprise 7 percent, and Transportation/Open space/Recreation and public facilities/right-of-way comprise the remaining 5 percent. Exhibit 3 (Panels 4-7) shows the location of the existing land uses located within Lakewood.

### South 80<sup>th</sup> Street to 100<sup>th</sup> Street Southwest

The majority of land uses between South 80<sup>th</sup> Street and 100<sup>th</sup> Street Southwest are mostly commercial uses mixed with some industrial uses. Mt. View Memorial Park (cemetery) is located west of the Project between South 74<sup>th</sup> Street and Steilacoom Boulevard Southwest. Pierce Transit is located east of the Project, north of 199<sup>th</sup> Street Southwest. Southgate Elementary School abuts the Project on the west side near 100<sup>th</sup> Street Southwest. Lakeview Way Southwest borders the rail corridor on the west side.

### 100<sup>th</sup> Street Southwest to Berkeley Street Southwest

Continuing south of 100<sup>th</sup> Street Southwest, the majority of land uses on both sides of the rail corridor are single- and multi-family residential to

almost 112<sup>th</sup> Street where commercial uses begin again on the east side. Lakewood Elementary School is located west of the corridor. The Sound Transit Lakewood Station and parking facility is located north of Bridgeport Way Southwest, as is St. Clare Hospital. Nearing Bridgeport Way Southwest, commercial uses are on both sides of the rail corridor.

South of Bridgeport Way Southwest, commercial uses continued on the east side to Pacific Avenue Southwest and Forest Glen Lane Southwest area. The Tyee Park Elementary School is located on the west side of the corridor. Near Pacific Avenue Southwest, the rail corridor is located closer to the I-5 transportation corridor with the military base on the other side of I-5. The Tacoma Country and Golf Club is located east of the rail corridor and parallels the railroad and I-5 corridors for approximately one mile.

Just past Lake Street Southwest, commercial uses begin again on the west side of the corridor to just past the Lakewood city limits at Berkeley Street Southwest.

## **What are the existing land uses within the unincorporated areas of Pierce County?**

Review and quantification of the existing land uses within Pierce County was limited due to the extent of the military reservation and limited data. According to the WSDOT GIS Workbench and Pierce County GIS data, 50 parcels totaling 1,000 acres exist within this portion of the study area. It is assumed that the large tract of land containing the military bases is counted as only one or a few parcels.

The actual number or percentages of the different uses were not compiled. Exhibit 3 (Panels 7-10) shows the location of the existing land uses located within unincorporated Pierce County as identified by Pierce County GIS data.<sup>10</sup>

### **Berkeley Street Southwest to Southern Terminus at Nisqually**

South of the Lakewood city limits (Berkeley Street Southwest), the rail corridor is located within the unincorporated area of Pierce County. The majority of land uses on both sides of the study area are military reservation, undeveloped forest land, and open space and recreation, including the Fort Lewis Military Golf Course.

Review of aerial photographs and JBLM planning documents identify commercial services and residential military uses within the designated military reservation located adjacent to the rail corridor. The analyses

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<sup>10</sup> *Pierce County 2011*

revealed only a few commercial, residential, recreational, and transportation/utility uses, and vacant uses within the non-military areas.

North and south of the DuPont city limits, the residential uses continue on the east side and commercial, residential and vacant lands exist on the west side just past the Center Drive interchange. From this point south, rural military uses exist on both sides of the existing railroad corridor. The railroad corridor is separated by land uses in DuPont by a major arterial and two I-5 interchanges.

## **What are the general land use characteristics of the military reservations located within the study area?**

The location and extent of military reservation land in the study area is shown in Exhibit 2. JBLM, an 86,000-acre military reservation, is the third largest Army installation in the western United States. It includes Fort Lewis Army Post, McChord Air Force Base and Camp Murray National Guard. JBLM is recognized as the third largest employer in Washington State and notably has the most significant economic influence in the study area with over 50,000 employees and a total military payroll of \$3.2 billion in 2010. JBLM population and workforce are anticipated to increase.<sup>11</sup>

A portion of JBLM (Main and McChord sections) is within the study area but the majority is separated by the I-5 corridor. Residential uses are predominantly between MP 10 and MP 17 (Bridgeport Way Southwest to McChord Drive Southwest and also Lake Lane Southwest to Pendleton Avenue). Within McChord Air Force Base boundaries, residential uses and aircraft maintenance uses are identified. The remaining areas adjacent to DuPont south to the southern termini are identified as training areas.<sup>12</sup>

Currently, JBLM generates approximately 152,000 off-site vehicle trips per day, with access to or from JBLM via multiple gates.<sup>13</sup> These trips are defined as the number of vehicles entering or leaving the access control points on an average daily basis. Currently during the PM peak hour, traffic to and from JBLM contributes significant numbers of vehicles to the surrounding roadway networks. Extensive collaborative planning efforts are ongoing between multiple agencies to efficiently plan for future growth of military personnel and civilians on and off base while managing transportation effects and congestion. This includes gate relocation and other capital projects to improve traffic flow in this urban area along the I-5 corridor.<sup>14</sup>

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<sup>11</sup> *US Army 2010*

<sup>12</sup> *US Army 2010a*

<sup>13</sup> *US Army 2010*

<sup>14</sup> *WSDOT 2010*

## What adjacent existing land uses may affect the Project?

Throughout the existing rail corridor, several adjacent land uses occupy portions of the railroad right-of-way with parking lots, outside storage, fences and two buildings. Some occupied areas have leases with the underlying railroad right-of-way owners: Sound Transit and BNSF. A 2010 WSDOT inventory identified approximately 50 encroachments by commercial or industrial uses. Since the original investigation, many of these encroachments have been resolved through leases and removing the encroachment. Only one of the encroachments involves a building, and WSDOT is working with the owner to resolve the issue. The remaining 18 unabated locations involve parking and storage areas and are anticipated to be resolved prior to construction of the Project.

## What resource lands were identified within the study area?

Resource lands include those lands used or have physical characteristics that make them ideal for agricultural, forestry or mineral extraction purposes. In the study area and near the southern terminus of the Project (Rail MP 17), the WSDOT GIS Workbench identifies lands as Farmland of Statewide Importance.<sup>15</sup> The Pierce County Zoning Code designation for these lands is Agricultural Resource Land which includes lands that are primarily devoted to commercial production of agricultural products.<sup>16</sup> These designated agricultural lands are outside of and separated from the existing railroad corridor by the I-5 corridor.

There are no other designated agricultural resource lands identified within the study area. In addition, there are no areas designated as mineral or forestry resource lands identified within the study area.<sup>17</sup>

## What shorelines and critical areas were identified within the study area?

This section provides an overview of shorelines and critical areas identified within the study area of the Project. Additional information on these natural features can be found in the *Water Resources, Wetlands, and Fish, Wildlife, and Vegetation* discipline reports also prepared for the Project.

### What streams or shorelines are located in the study area?

The study area is traversed by five streams. These natural features qualify as shorelines or critical areas, and proposed developments in or near these

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<sup>15</sup> *Natural Resource Conservation Service Agency designation*

<sup>16</sup> *Pierce County 2011*

<sup>17</sup> *WSDOT GIS Workbench*

features are regulated. Locations of these natural features are shown in Exhibit 6.

Generally, classification of streams is based on the Washington State Department Natural Resources (WADNR) Water Typing System adopted under WAC 222-16-030, which is incorporated into a Shoreline Master Program and CAO adopted by the local jurisdiction. Designation criteria of streams are also guided by the SMA (RCW 90.58) and the Water Pollution Control Act (RCW 90.48).<sup>18</sup>

The Puyallup River and Nisqually River are designated shorelines of the state by the SMA, are classified Type S Waters by WADNR, and are located near the northern and southern Project termini, respectively, but outside of the study area identified for this report.

Within the city limits of Tacoma, an unnamed and unclassified stream flows westerly through the I-5 and railroad corridor into the Flett Creek Holding Basin. The stream crosses the railroad corridor via a culvert between Rail MP 7.5 and 7.6.

Clover Creek also drains westerly through the I-5 corridor, crosses under the railroad corridor via a bridge near Rail MP 10.8, and ultimately drains into Steilacoom Lake. Clover Creek is located within the city limits of Lakewood and is classified as a Type S stream according to the WADNR system and is a shoreline of the state under SMA. Adopted as Chapter 14.13 of the Municipal Code, the Lakewood SMP designates Clover Creek as an Urban shoreline environment and requires a 50-foot habitat protection buffer.<sup>19</sup> As part of the Project, reconstruction of the track is planned at Clover Creek approximately 15-20 feet west of the existing main line but within the existing rail right-of-way. The Project design does not require bridge upgrades for the reconstruction and no in-water work or alteration to the stream or its buffer is proposed.

Another unnamed and unclassified stream within Lakewood city limits crosses the I-5 corridor, and also the railroad corridor via a culvert at Rail MP 12.8 and drains into American Lake.

Murray Creek also drains westerly through the I-5 corridor and crosses the railroad corridor via a culvert at Rail MP 14 and ultimately drains into American Lake. This portion of Murray Creek is within the unincorporated area of Pierce County. Murray Creek is designated in by the WDNR Water Type Code system as a Type F stream which generally indicates that the stream has a year round flow with identified fish habitat or fish presence. As part of the Project, reconstruction of the track is

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<sup>18</sup> *Washington State Legislature 2011*

<sup>19</sup> *Lakewood Municipal Code 2006*

planned at the Murray Creek crossing but no culvert replacement and no in water work or alternation to the stream or its buffer is proposed.

Another unnamed and unclassified stream crosses the railroad corridor near Rail MP 20.6 and drains into the Nisqually River.<sup>20</sup>

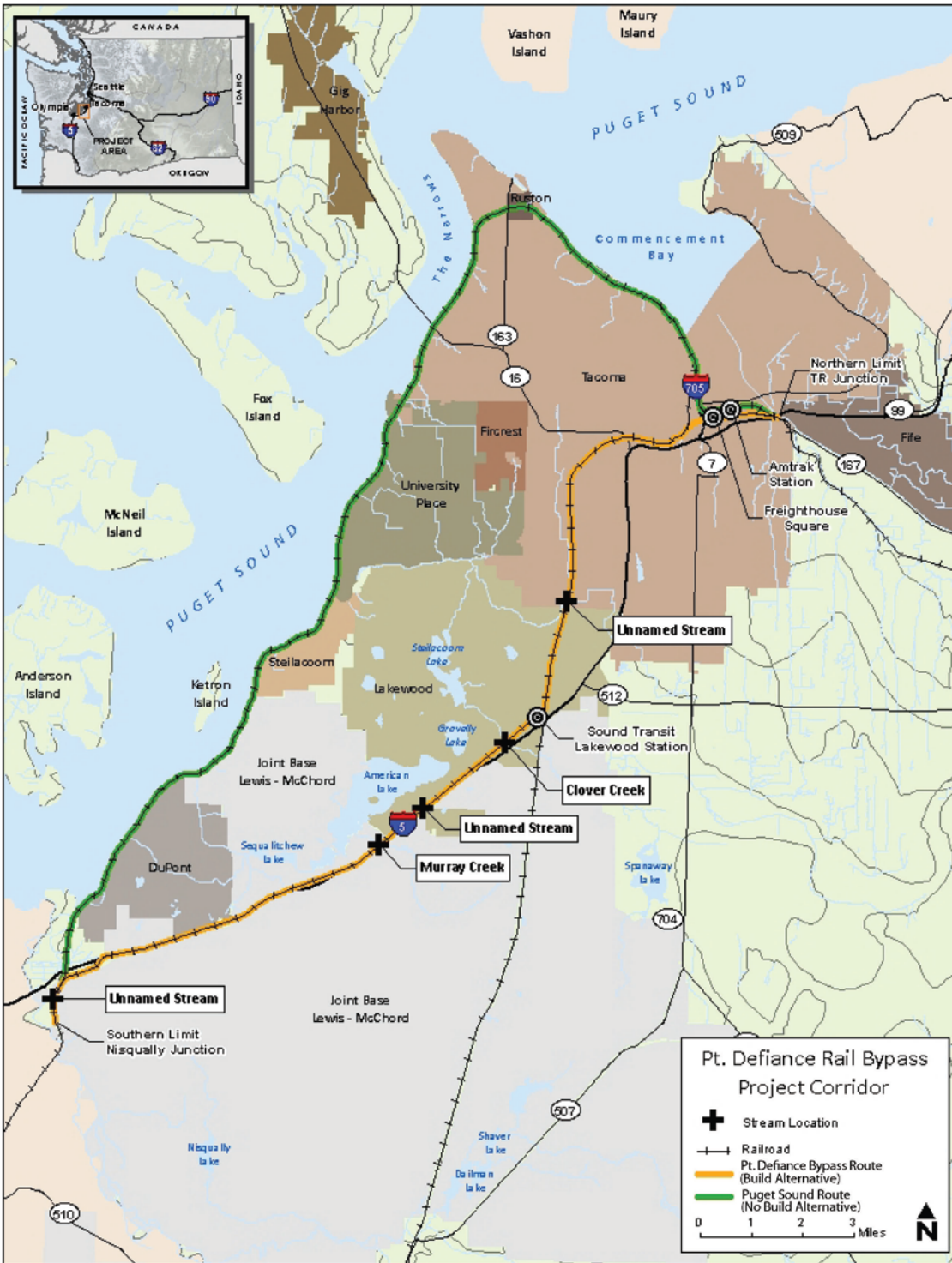
Any expanded or replaced crossing structures or alteration to the stream channel or buffer may require some level of regulatory approvals via SMA and CAO permit processes adopted by the local jurisdiction.

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<sup>20</sup> *Pierce County 2011*



Exhibit 6. Streams within the Study Area



### **What critical aquifer recharge areas were identified in the study area?**

The majority of the project corridor is located within a critical aquifer recharge area which is a type of critical area subject to GMA and CAO regulations. This area is also designated as a sole source aquifer, Central Pierce County Aquifer System, which supplies the majority of drinking water source for the region. Pierce County and the cities of Lakewood and Tacoma each have regulations that may restrict the location of certain land uses in critical aquifer recharge areas, as well as require specific ground water pollution control requirements to prevent leaching into the groundwater system. Further information can be found in the *Water Resources Discipline Report*<sup>21</sup> prepared for the Project.

### **What habitat areas were identified in the study area?**

Due to existing baseline disturbance from surrounding urban development, automobile and train traffic, human activity, and vegetation management, suitable habitat for wildlife listed under the Endangered Species Act (ESA) is absent within the study area. Additionally, due to railroad maintenance and operations, conditions within the study area are not suitable for plants listed under the ESA. Further information can be found in the *Fish, Wildlife, and Vegetation Discipline Report*<sup>22</sup> prepared for the Project.

### **What wetlands were identified in the study area?**

As found in the *Wetlands Discipline Report*<sup>23</sup> prepared for the Project, four wetlands are present within the Project study area.

## **What are the general development trends in the study area?**

### **What are the general state, regional and local economic and land use development trends?**

The Washington State Office of Financial Management forecasts a 58% population increase for Washington State by 2040, from 6.6 million to almost 8.8 million people.

The population forecast for the Puget Sound Region includes 1.6 million additional persons by 2040. Resulting changes in land use and development patterns by population growth can be partly attributed to the national and regional economy, along with the balance between

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<sup>21</sup> WSDOT 2012a

<sup>22</sup> WSDOT 2012b

<sup>23</sup> WSDOT 2012c

transportation infrastructure investments and development, policies, tax structure, political leadership and public consensus on the region's future.<sup>24</sup>

Similar to other parts of the Puget Sound area, Pierce County's economy as a whole grew between 2004 and 2008 but since 2008, has suffered from the national recession. Two of the largest local economic drivers, health care and military, helped sustain the local and economy which has slowly improved in 2010. Single-family housing was predicted to improve in 2010 but commercial and industrial real estate transactions and development were not.<sup>25</sup> The economic forecast is for steady and slow growth in 2011.<sup>26</sup>

In 2010, a transportation analysis was completed by WSDOT and TranspoGroup for the I-5 corridor between Exit 116 (Mounts Road) and 127 (SR 512) that included a land use forecast for Pierce County for the year 2030. This analysis projected a 53 percent increase of the number of households for Pierce County (to 129,000) and an employment increase of 60 percent or 123,000 jobs by 2030. Within the I-5 Corridor, these projections included a growth rate of 0.5 percent per year for each zoning district, an increased number of households by 13 percent, or 3,400 households, and employment increase by 16 percent or 1,600 jobs.<sup>27</sup>

This is partly due to JBLM who has a major influence on state, region and local development trends. JBLM forecasts an increased need for housing to support the increase of military personnel over the next 10 years. The City of DuPont is identified as the third fastest growing area in the State of Washington partly due to residential developments designed for military personnel and their families which makes up about 40 percent of DuPont's population.<sup>28</sup>

JBLM identified multiple large projects within the base boundaries totaling \$1.8 billion in construction from 2005-2010 and \$2.4 billion in projected construction between 2010 and 2016. This includes the Freedom Crossing project that would construct 470,000 square feet of new buildings for commercial/retail uses to support the base population and employees.<sup>29</sup>

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<sup>24</sup> *Puget Sound Regional Council*

<sup>25</sup> *Tacoma Pierce County Chamber of Commerce 2010*

<sup>26</sup> *Tacoma Pierce County Chamber of Commerce 2011*

<sup>27</sup> *WSDOT 2010*

<sup>28</sup> *US Army 2010*

<sup>29</sup> *US Army 2010a*

## **What is the general availability of developable lands in the study area?**

As required by GMA, Pierce County and its 23 cities and towns developed a Buildable Land Program to efficiently evaluate and monitor actual development trends and patterns in urban areas. Data compiled through these efforts into a *buildable lands inventory* included the location and availability of commercial and industrial land for employment purposes and residential lands for housing. The local jurisdictions then determined if the adopted land use plans accommodate the demand or projected need, and make amendments to land use plans accordingly.

The inventory identified some of the buildable lands as vacant, underdeveloped or redevelopable which are further defined as follows:

- Vacant lands included individual parcels or those parcels that could be subdivided into more than one parcel
- Underdeveloped included residentially-occupied parcels that could be subdivided into more residential lots, or residences that were located within commercial districts
- Redevelopable parcels were those located in multi-family or commercial zoning districts that were occupied by buildings with questionable economic viability, and included those parcels with land values greater than the value of the improvements.

For the purposes of this report, review of the 2007 Pierce County Buildable Lands Report and Appendix A, Inventory Maps, focused on the number of underdeveloped and redevelopable lands located within the study area and then compared the results to the existing land use inventory compiled in 2009 by Pierce County GIS.<sup>30</sup> This review concluded that roughly 25 percent of the parcels located within the city limits of Tacoma portion of the study area met the standard for more intense development or redevelopment. In Lakewood, the percentage increased to roughly 30 percent.

## **What are the general development trends within the city limits of Tacoma?**

The City of Tacoma identified the Tacoma Dome area as a Regional Growth Center and also as a Tacoma Dome Urban Mixed Use Center which encompasses the existing Tacoma Amtrak Station and Freighthouse Square. This area is planned for intense residential, civic and commercial development with an emphasis on transit access and usage.

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<sup>30</sup> *Pierce County 2011*

The City of Tacoma also identifies other city centers or neighborhoods such as the Downtown Tacoma Business Improvement Area, South Tacoma, Port of Tacoma, and the south Tacoma Way corridor which includes the study area located south of Freighthouse Square. The latter is designated as a Manufacturing and Industrial Growth Center which is developed with heavy and light industrial uses.

The City of Tacoma identified redevelopment possibilities in the study area which are listed below. It should be noted that no formal proposals have been submitted as of the date of this report.

- A large tract of land that housed the former BNSF maintenance shop may be redeveloped for warehousing, and transportation/loading activities between 38th and 56th Streets
- The possible redevelopment in the 700 block of East 25th and the 800 block of Puyallup Avenue
- Relocation of existing tenants and uses.<sup>31</sup>

### **What are the general development trends within the city limits of Lakewood?**

In 2010, a transportation analysis was completed by WSDOT and TranspoGroup for the I-5 corridor between Exit 116 (Mounts Road) and 127 (SR 512) that included a land use forecast for the City of Lakewood and Pierce County for the year 2030. The report noted that the forecasts for Lakewood were lower than Pierce County, indicating that Lakewood was currently well developed with most of the future building activity to occur on vacant land or by redevelopment of existing developed areas.<sup>32</sup>

The City of Lakewood identified recent city-wide developments that include several large public construction projects: Lakewood city hall at Lakewood Town Center, Lakewood Station, fire station, police station, and educational buildings. Residential and commercial development has been slow due to the current economy. Mixed use development is slow as well with only one newer development with relatively low occupancy rates.<sup>33</sup>

Within 500 feet of the rail corridor and in addition to the developments above, the City of Lakewood identified the following building permit and land use developments or construction activities since 2007:

- One 4,000 square foot (s.f.) fast food restaurant
- Four commercial (ranging from a car dealership to an espresso stand)

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<sup>31</sup> Shirley Schultz

<sup>32</sup> WSDOT 2010

<sup>33</sup> Marc Amrine

- One mixed use commercial
- One 50,991 square feet elementary school
- One 31,000 square feet Boys and Girls Club/ community center
- One 3 lot commercial short plat currently undeveloped
- Six building demolitions; 2 additional possible depending on pending abatement actions
- Two mobile home park closures totaling 89 housing units<sup>34</sup>

In addition, the City of Lakewood identifies the following projects and focus areas for redevelopment within the city that are near or within the study area:

- South Tacoma Way/Pacific Highway - Four new hotels and mini casinos are developing, and replacement of older buildings and uses by legal, contemporary redevelopment is being promoted.
- Bridgeport /100<sup>th</sup> Street Southwest - Redevelopment of the Lakewood Mall into the Lakewood Town Center to contain restaurant, retail, office and government office uses.
- Tillicum and Woodbrook neighborhoods - A recently completed sewer extension to serve these neighborhoods is likely to promote redevelopment.<sup>35</sup> Habitat for Humanity proposes to construct 30 new homes in Tillicum starting in 2012.<sup>36</sup>

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<sup>34</sup> *Deborah Johnson*

<sup>35</sup> *Deborah Johnson*

<sup>36</sup> *Lakewood 2012*

# Chapter 4 – Consistency Analysis with Land Use Policies, Plans and Regulations

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This section provides an overview of the land use plans, policies and zoning designations adopted by the cities of Tacoma and Lakewood and Pierce County that apply to the study area. This section also analyzes the Project for consistency with the regulations adopted by these local jurisdictions.

## What are the planned use and zoning policies and regulations adopted by the City of Tacoma that apply to the Project?

The City of Tacoma’s Comprehensive Plan and Zoning Code applies to the northern one-third of the study area. Exhibit 7 lists the land use and zoning designations that apply to this segment. Maps showing the zoning designations within this portion of the study area are provided in Exhibit 8 (Panels 1-4).

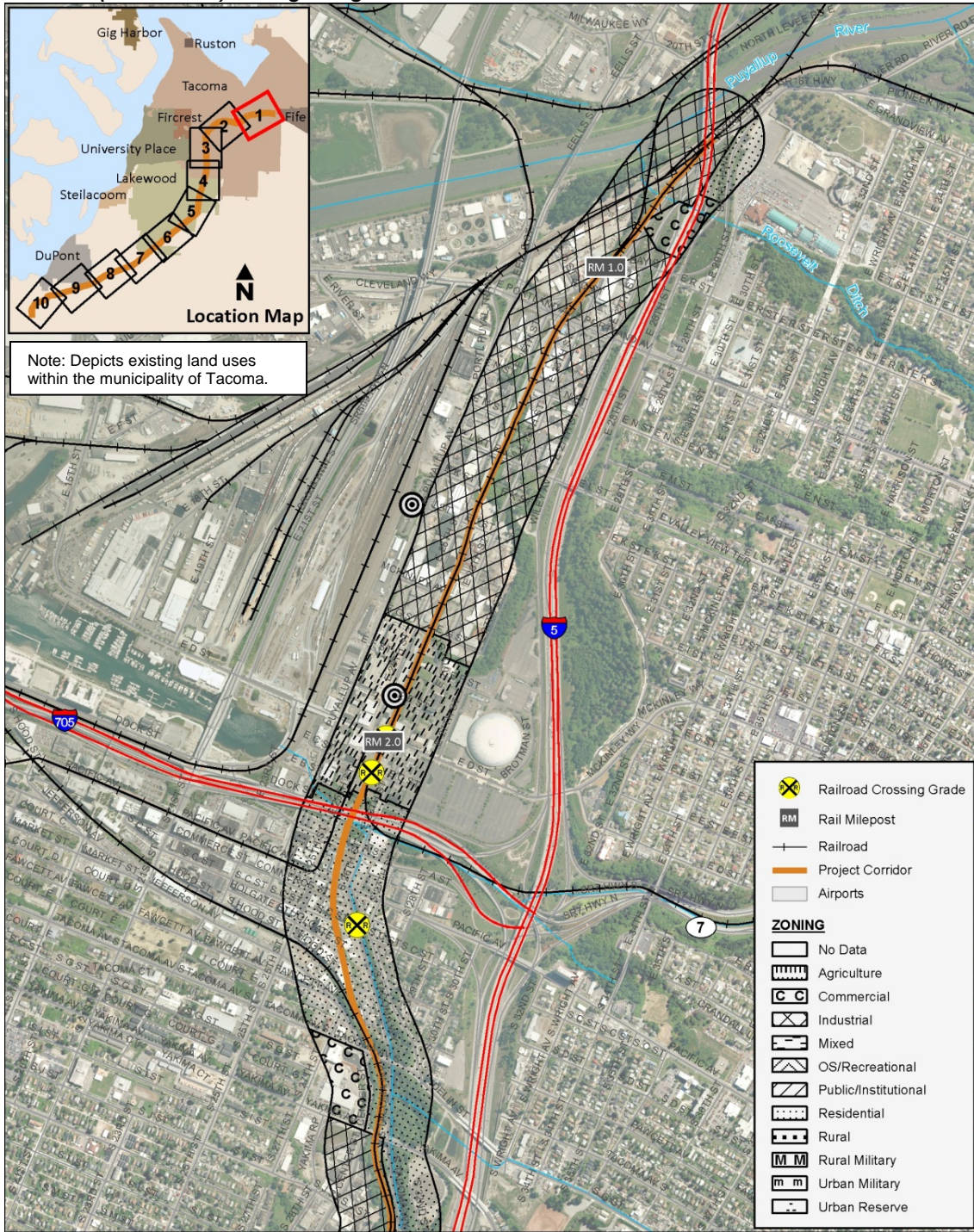
The adopted comprehensive plan designations that apply to this segment of the study area range from High Intensity to the north and Medium Intensity from South 56<sup>th</sup> Street south to the Lakewood city limits. The Comprehensive Plan describes High Intensity uses as heavy and light manufacturing and industrial centers and developments of regional significance, and describes Medium Intensity uses include as commercial and service businesses of community-wide significance.

**Exhibit 7. City of Tacoma – Applicable Planned Use and Zoning Designations**

Designation <i>Project Segment / Area</i>	Comprehensive Plan Use		Zoning <sup>37</sup>	
	<i>Project Footprint</i>	<i>Adjacent</i>	<i>Project Footprint</i>	<i>Adjacent</i>
Freighthouse Square	High Intensity	Same	Urban Mixed Use-Tacoma Dome (UCX-TD)	M1/Mixed Use
City of Tacoma to Lakewood City Limits	High Intensity/Medium Intensity	Same	Industrial (M1, M2) Commercial (C2, C1X, UCX-TD)	Same as Project Footprint plus Commercial (CCX, NCX) Residential (DR, R3, R4)

<sup>37</sup> Zoning district names: C2- General Community Commercial District; UCX-TD -Urban Center Mixed Use -Tacoma Dome; C1X -Commercial Industrial Mixed Use; M1-Light Industrial; M2 – Heavy Industrial; DR – Downtown Residential; NCX – Neighborhood Commercial Mixed Use; CCX – Community Commercial Mixed Use; R3 – Two family Residential; R4-Multi-family Residential.

**Exhibit 8. (Panels 1-10) Zoning Designations**



Note: Depicts existing land uses within the municipality of Tacoma.

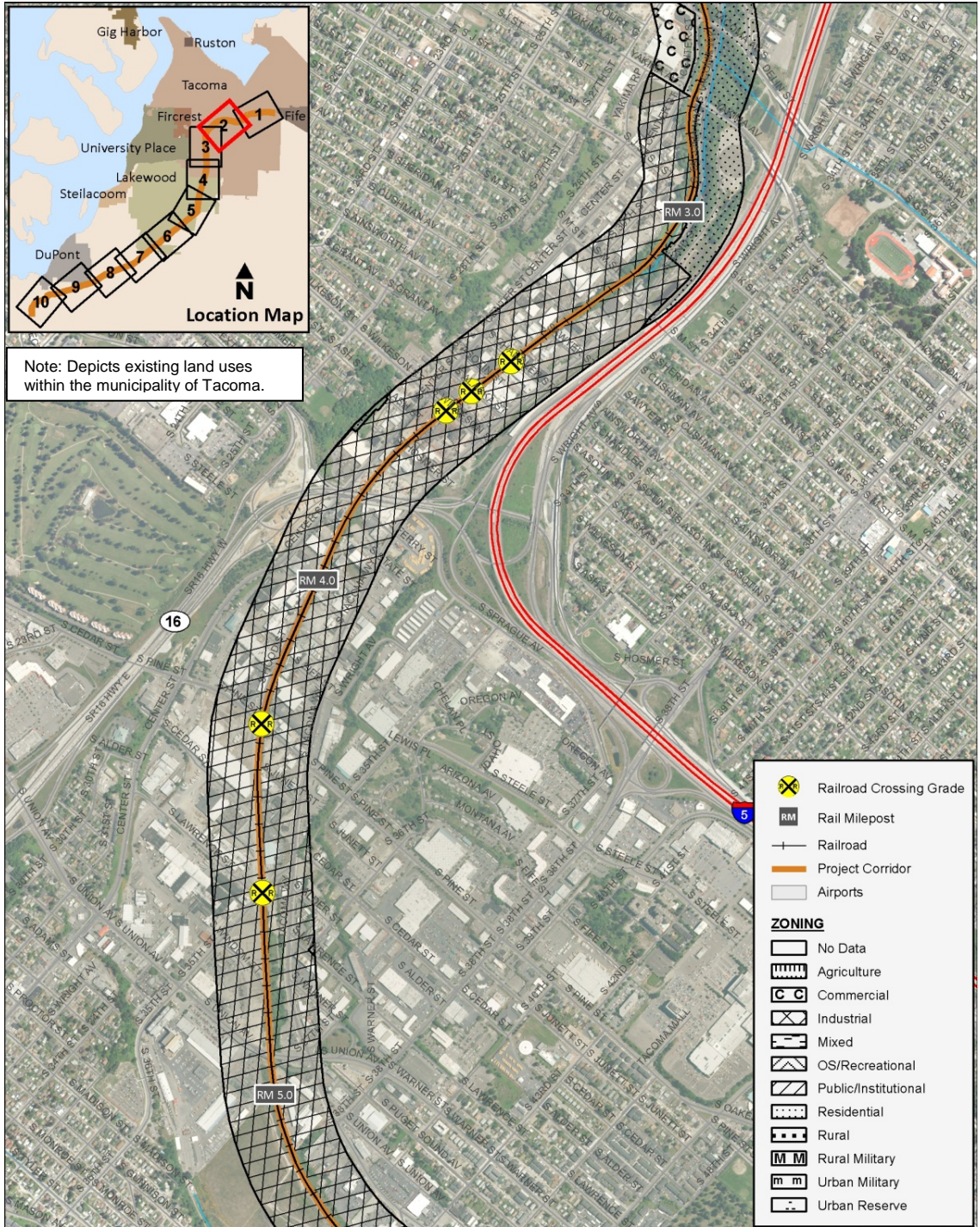
- Railroad Crossing Grade
  - Rail Milepost
  - Railroad
  - Project Corridor
  - Airports
- ZONING**
- No Data
  - Agriculture
  - Commercial
  - Industrial
  - Mixed
  - OS/Recreational
  - Public/Institutional
  - Residential
  - Rural
  - Rural Military
  - Urban Military
  - Urban Reserve

**Pt. Defiance Rail Bypass**  
**Zoning Designations**  
 Panel 1      February 6, 2012

Washington State Department of Transportation      0      0.25      0.5 Miles     

Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation





Note: Depicts existing land uses within the municipality of Tacoma.

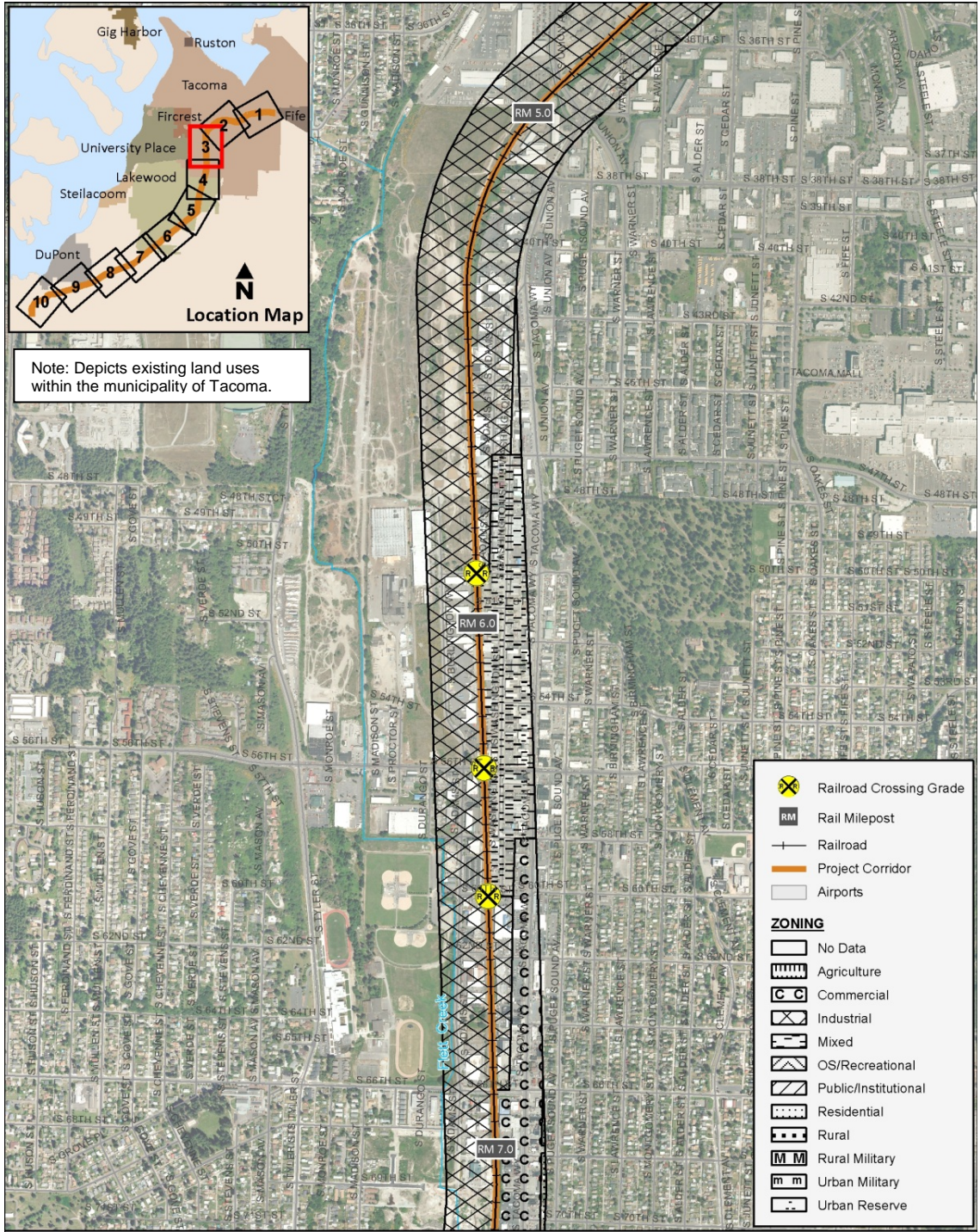
**Pt. Defiance Rail Bypass  
Zoning Designations**

Panel 2

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



Note: Depicts existing land uses within the municipality of Tacoma.

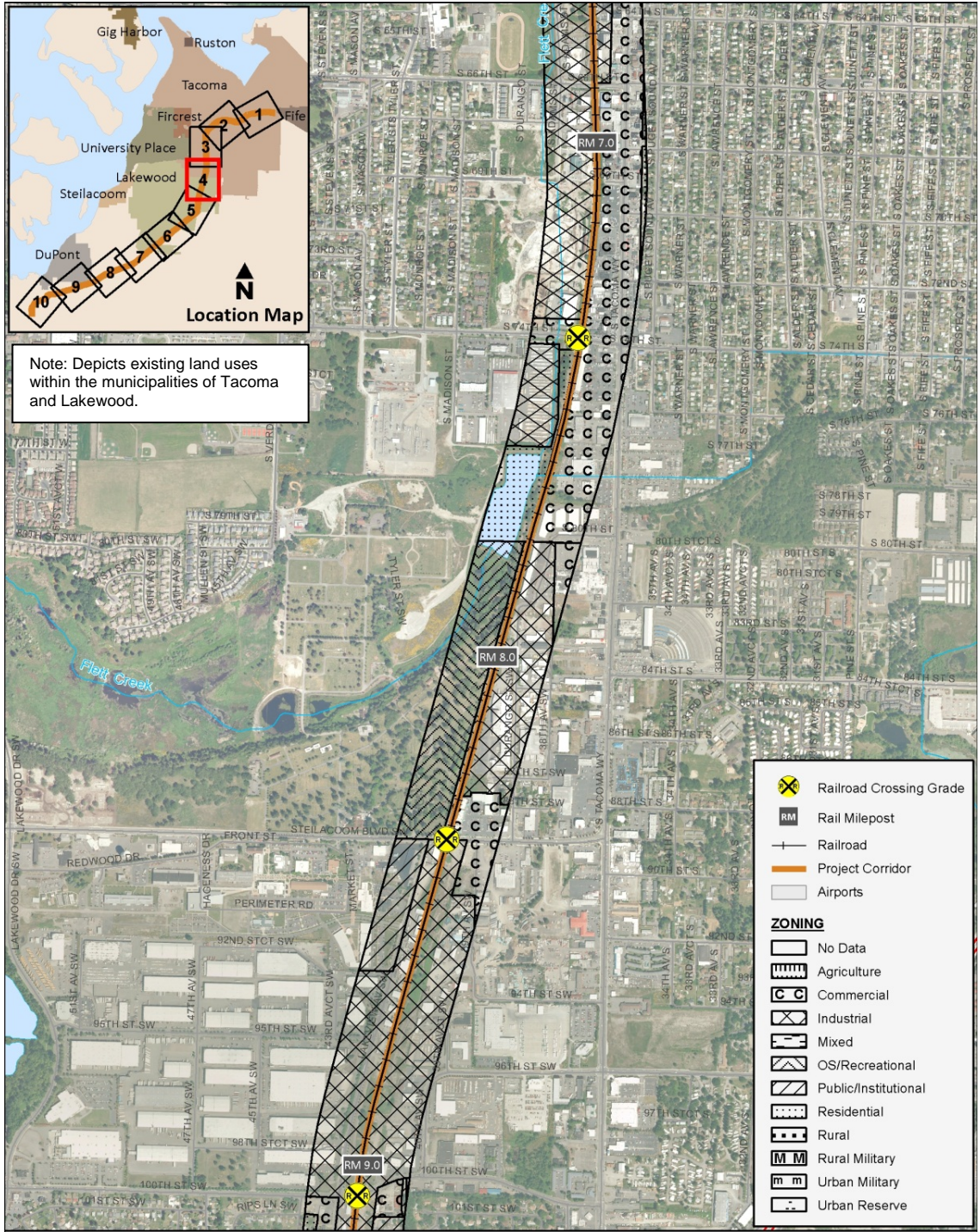
- Railroad Crossing Grade
  - Rail Milepost
  - Railroad
  - Project Corridor
  - Airports
- ZONING**
- No Data
  - Agriculture
  - Commercial
  - Industrial
  - Mixed
  - OS/Recreational
  - Public/Institutional
  - Residential
  - Rural
  - Rural Military
  - Urban Military
  - Urban Reserve

**Pt. Defiance Rail Bypass  
Zoning Designations**



Panel 3 February 6, 2012

Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



Note: Depicts existing land uses within the municipalities of Tacoma and Lakewood.

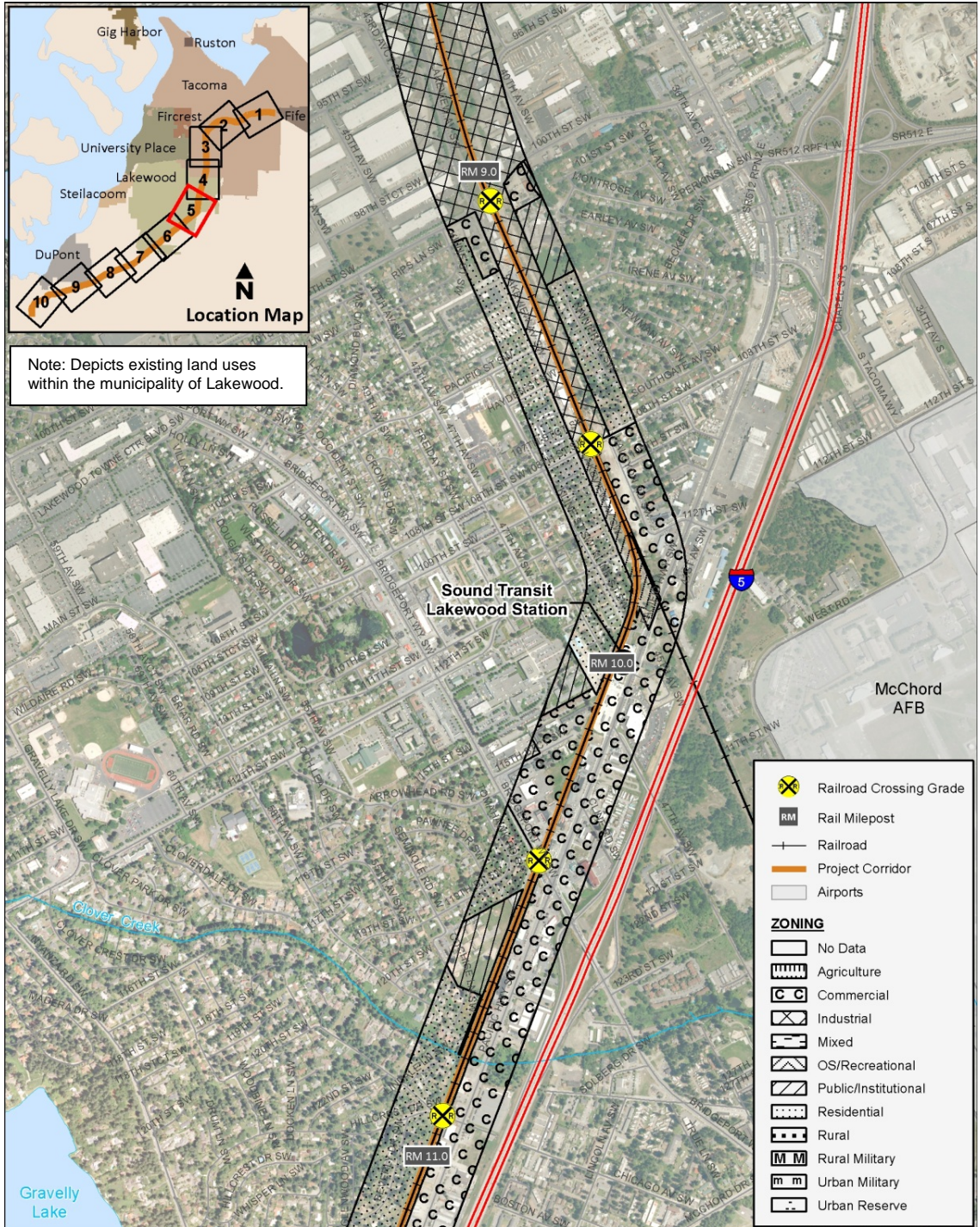
**Pt. Defiance Rail Bypass  
Zoning Designations**

Panel 4

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



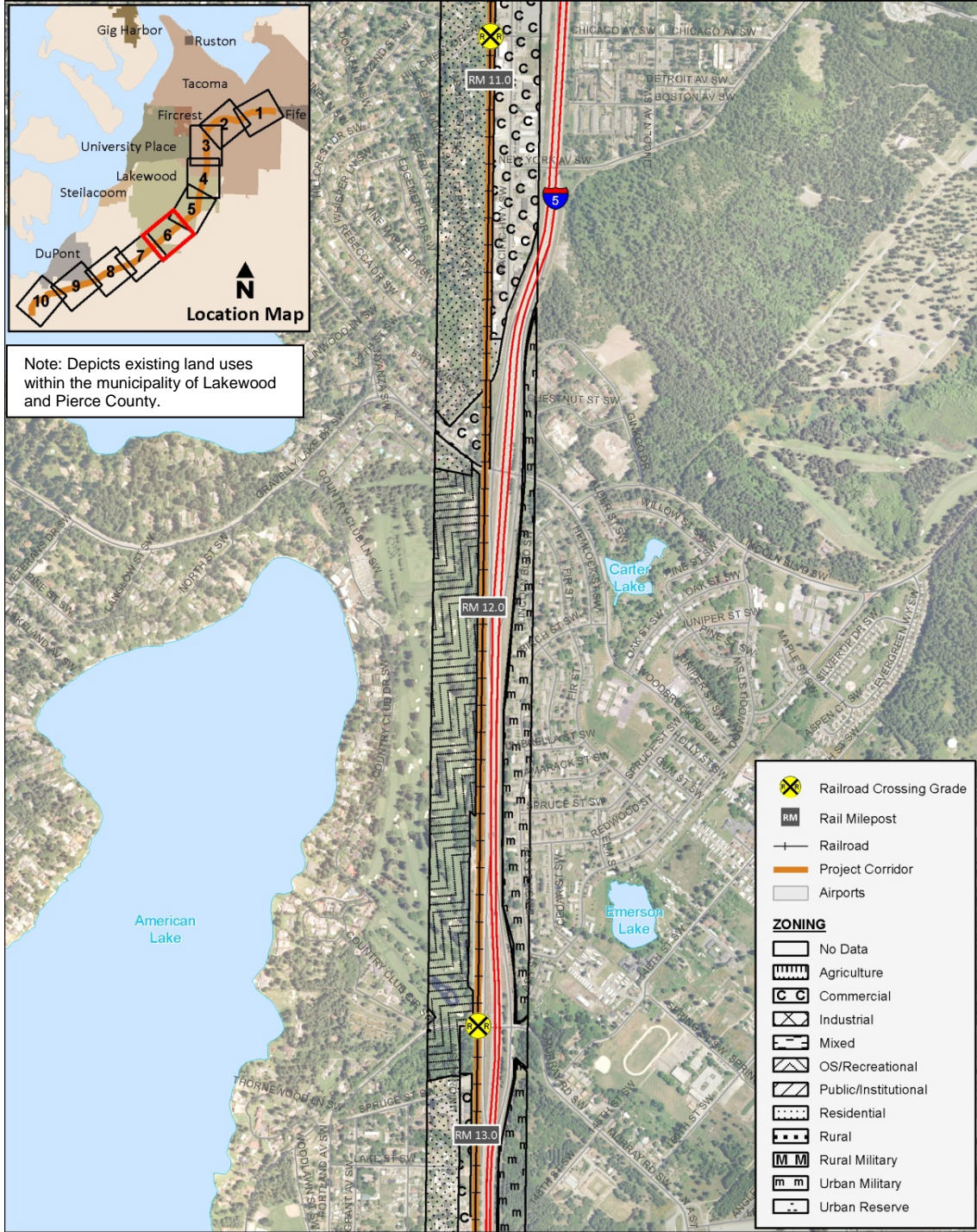
**Pt. Defiance Rail Bypass  
Zoning Designations**

Panel 5

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



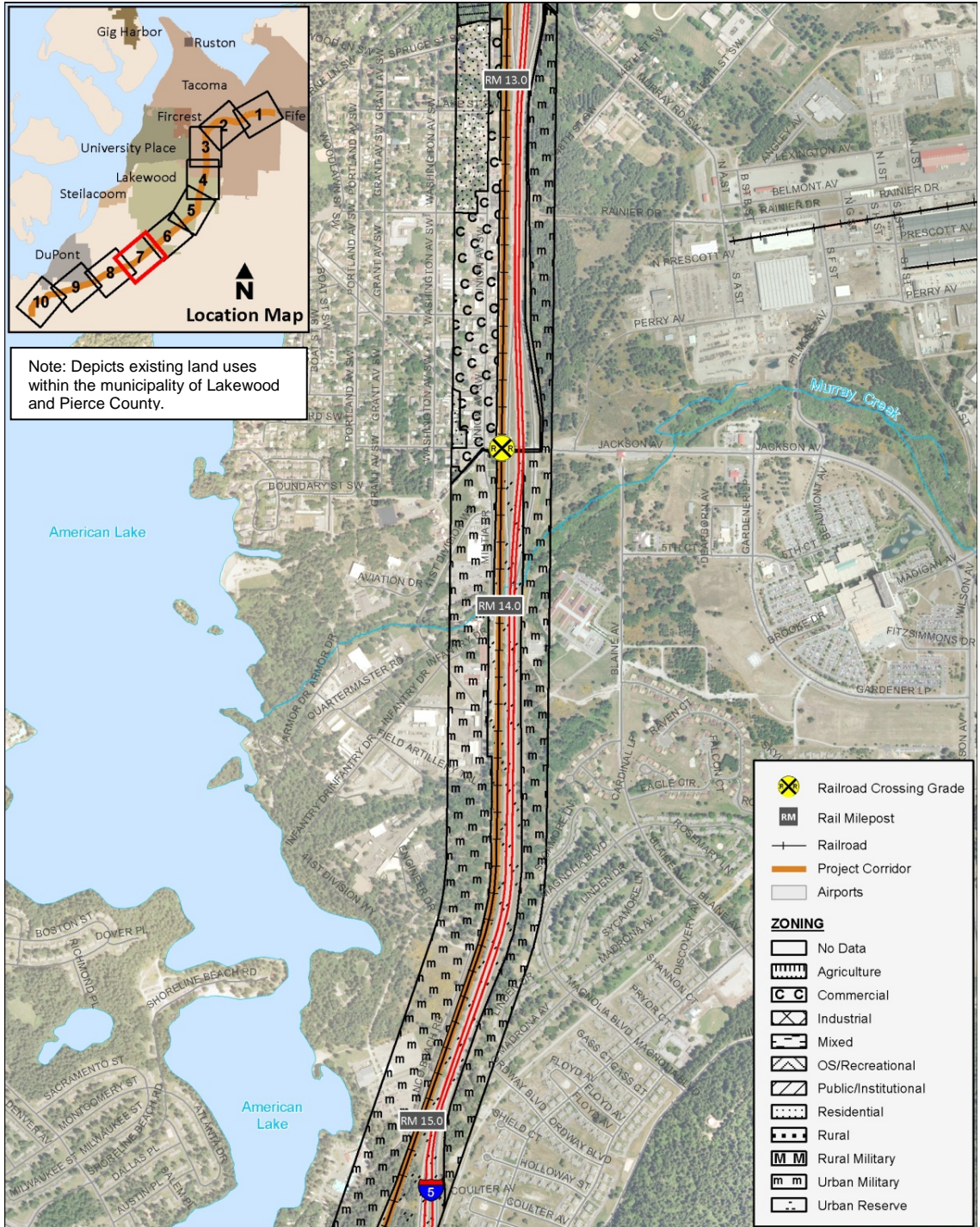
**Pt. Defiance Rail Bypass  
Zoning Designations**

Panel 6

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



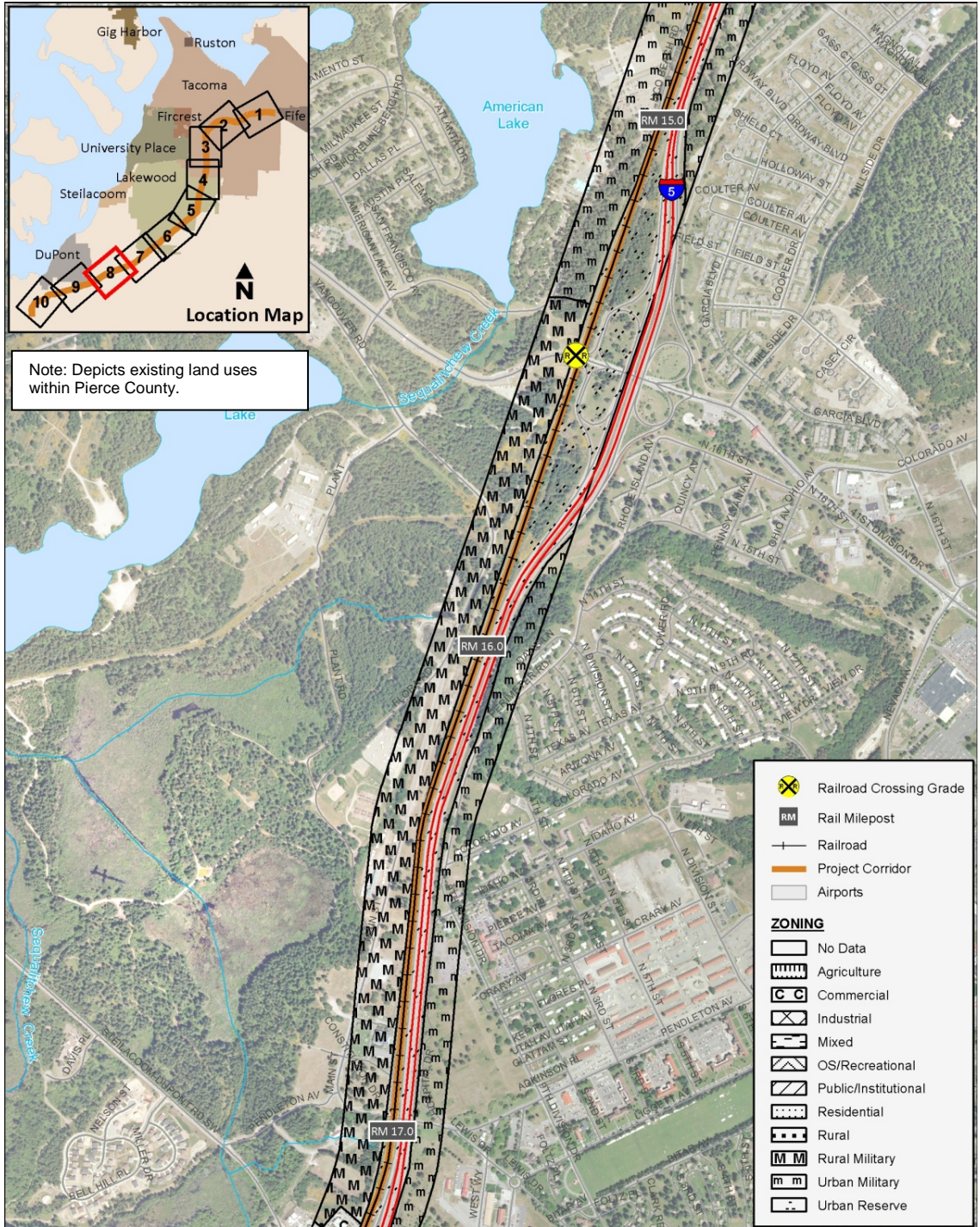
**Pt. Defiance Rail Bypass  
Zoning Designations**

Panel 7

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



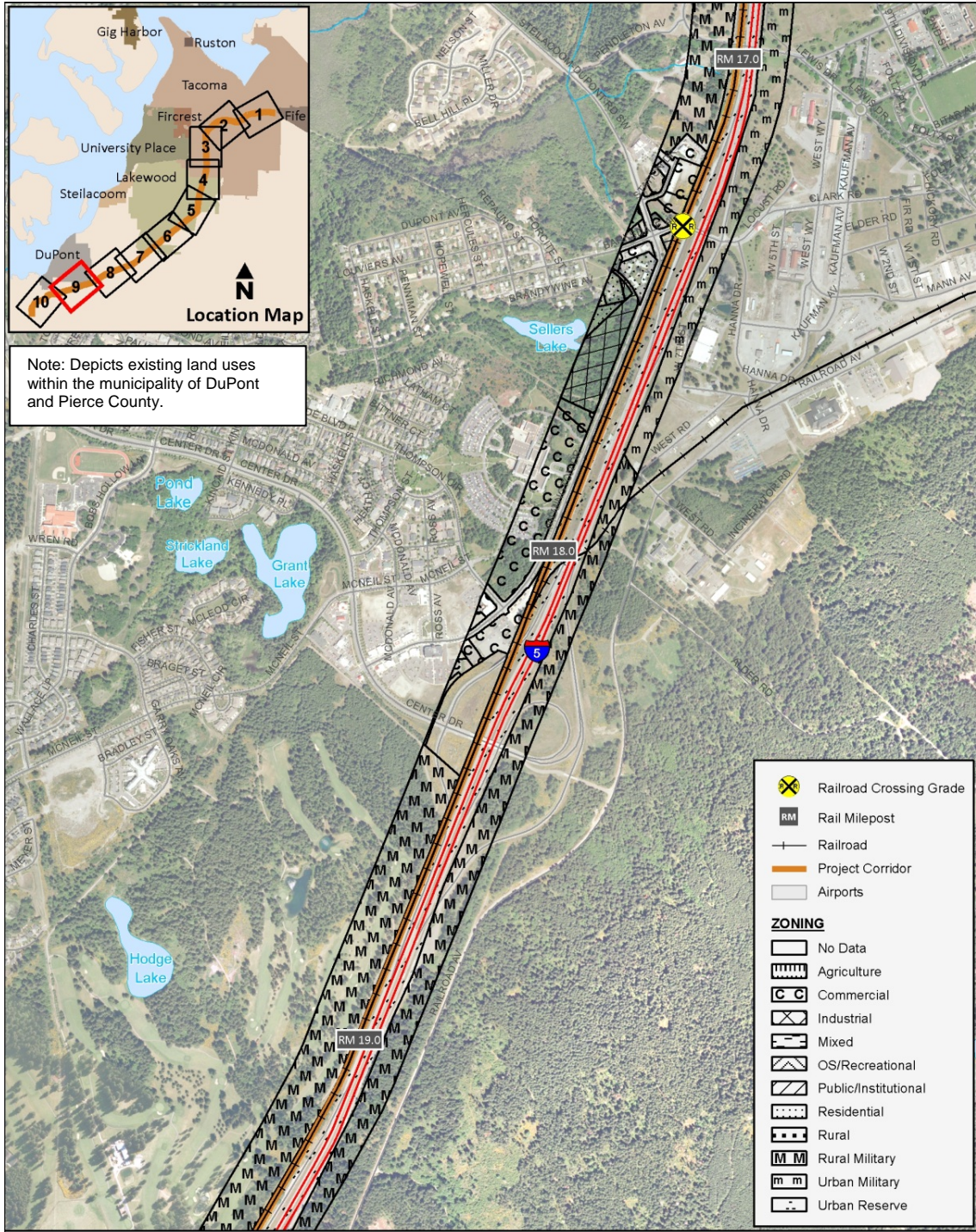
**Pt. Defiance Rail Bypass  
Zoning Designations**

Panel 8

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation



**Pt. Defiance Rail Bypass  
Zoning Designations**

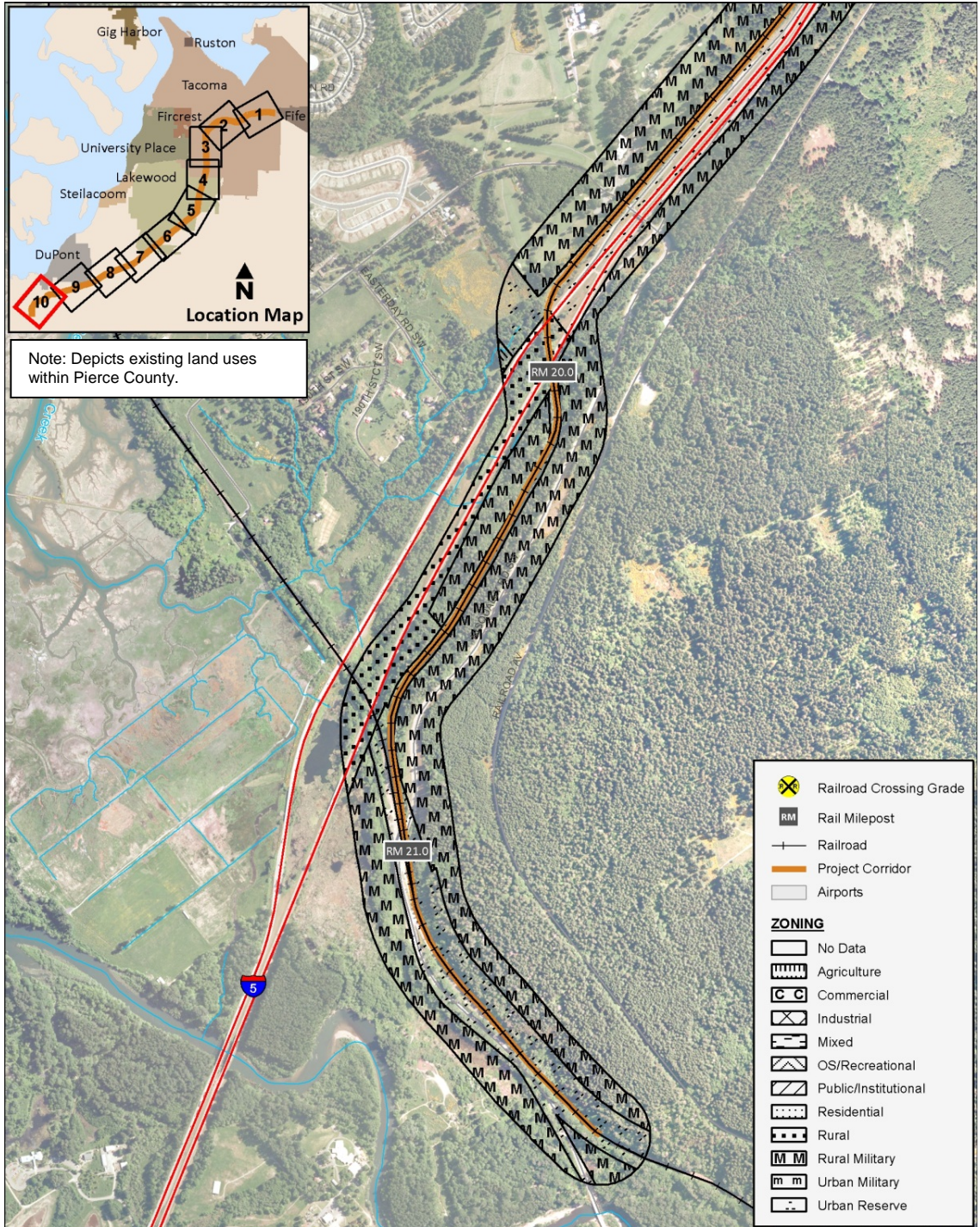
Panel 9

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation





Note: Depicts existing land uses within Pierce County.

**Pt. Defiance Rail Bypass  
Zoning Designations**

Panel 10

February 6, 2012



Data Sources: Pierce County; TANA Dynamap Transportation; US Census Bureau; US Environmental Protection Agency; WA Dept. of Ecology; WA Dept. of Health; WA Dept. of Natural Resources; WA Dept. of Transportation

The proposed Tacoma Amtrak Station relocation to the Tacoma Dome Station at Freighthouse Square would have extensive transportation and land use benefits by the joint use of the train depot, parking facilities and pedestrian pathways that would serve the Greyhound Bus, Link Light Rail, Sounder Commuter Rail, and Train-to-Mountain excursion train services. Implementing this combined use is a goal identified in multiple local and regional plans and policies. Attachment A provides a summary of these key policies.

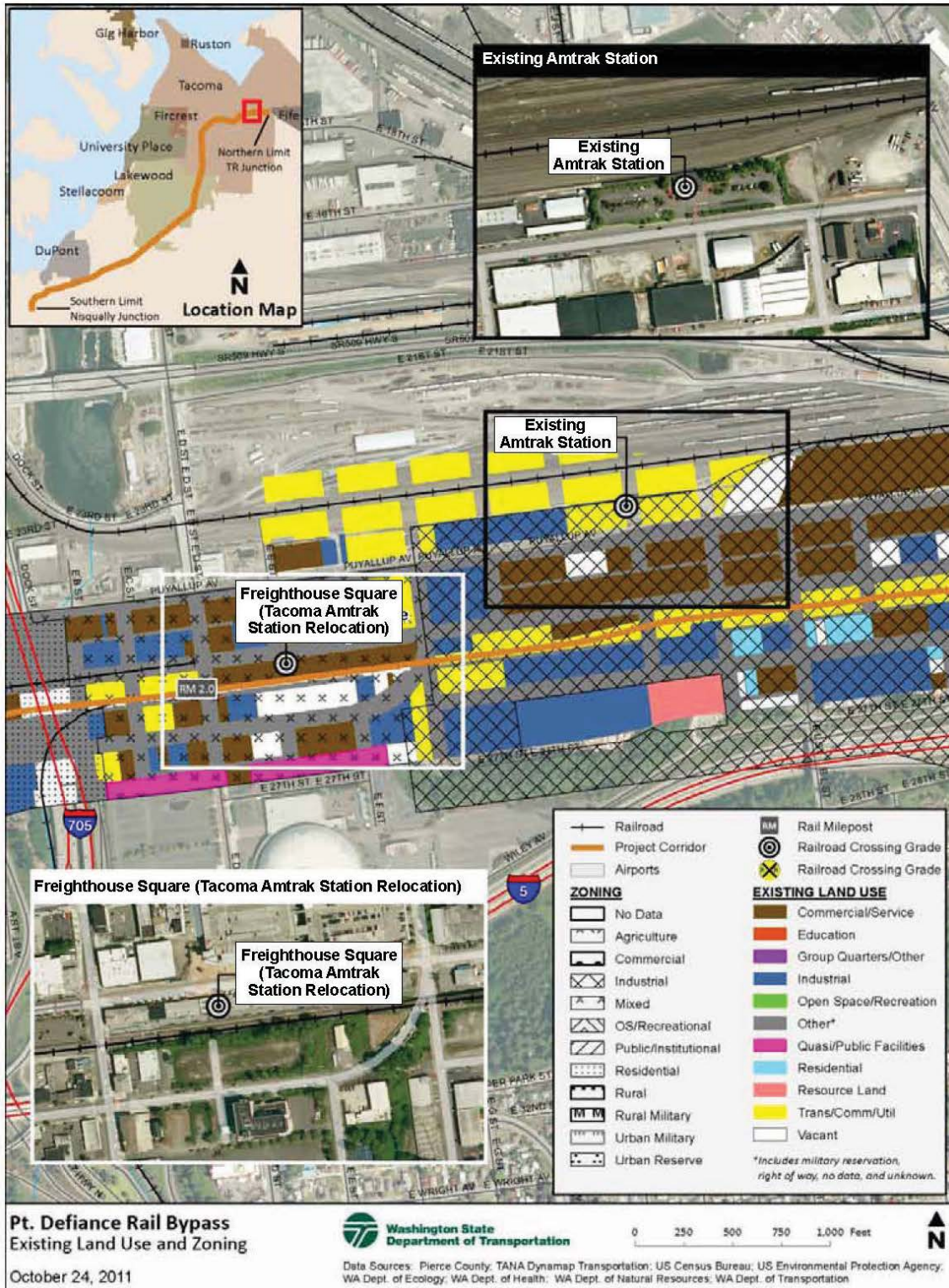
Freighthouse Square and adjoining parcels are located in the Urban Mixed Use-Tacoma Dome (UCX-TD) zoning district, which is intended as a buffer area between heavy industrial uses and less intensive commercial and/or residential uses (see Exhibit 9). The Tacoma Amtrak Station relocation component of the Project meets the definition of Passenger terminal under the City of Tacoma Zoning Ordinance, which is a permitted use within the UCX-TD zoning district.<sup>38</sup>

The Project consists of a railroad corridor upgrade and increased rail operations by high speed train use and does not fall into a typical land use category regulated by a local zoning code. In addition, the entire Project lies within a pre-existing rail corridor established in the late 1800s and has been an integral component of local and regional land use planning efforts for decades.

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<sup>38</sup> *The Tacoma Zoning Ordinance Section 13.06.700.P defines a Passenger terminal as: “Public or publicly regulated facility for passenger transportation services and operations. This classification includes railroad passenger terminals, rapid rail or street railway passenger terminals, bus passenger terminals, multi-modal transportation passenger terminals, or any combination of the above. Typical activities include ticketing, waiting, boarding, baggage and parcel handling, transport, and temporary storage of transit vehicles and equipment. Passenger terminals may include park-and-ride facilities, bicycle facilities, and pedestrian linkages at, above, or below grade (including sky-bridges and/or tunnels within City rights of way). Accessory uses may include indoor and/or outdoor retail sales, food and drink sales or other service operations within or adjacent to the terminal.” Also under Section 13.06.700.T, a Transportation/Freight terminal is defined as: “A place where transfer of goods and/or people takes place between modes of transportation. This classification includes marine terminals, freight terminals and transfer yards, container marshalling yards, intermodal rail yards, general rail yards, train and bus stations, and ferry terminals.”*

**Exhibit 9. Tacoma Amtrak Station Relocation – Existing Land Use and Zoning**



## **Is the Project consistent with the policies and regulations adopted by the City of Tacoma?**

The Tacoma Amtrak Station relocation portion of the Project would be a permitted use according to the Tacoma Zoning Code. Any new building, parking facility or renovation must comply with applicable building code and development standards adopted by the City of Tacoma.

Similar to an interstate highway or major arterial city street, the proposed railroad corridor upgrade and increased operational use does not fall into a typical land use category governed by a local zoning code. Rather, the siting of these facilities and planning of transportation networks must be coordinated with land use patterns in the area along with applicable regional and local transportation goals and policies.

The Project is consistent with adopted plans and would implement policies adopted by the City of Tacoma. No policy was found that would deem the Project inconsistent with these adopted plans and regulations. Based on this review, the Project is consistent with the comprehensive plan and zoning regulations adopted by the City of Tacoma.

## **What are the planned use and zoning policies and regulations adopted by the City of Lakewood that apply to the Project?**

The study area lies within several comprehensive plan and zoning designations adopted by the City of Lakewood which are summarized in Exhibit 10.

In this segment, the land use designations that apply to the study area are a mix of industrial, open space, commercial, residential and right-of-way overlay. Generally, commercial and industrial districts are identified north of the Sound Transit Lakewood Station, while both commercial and residential districts are located south of the Lakewood Station. The City of Lakewood zoning designations that apply for this segment of the study area are shown in the maps series provided in Exhibit 8 (Panels 4-7). Adopted key goals and polices are identified in Attachment A.

**Exhibit 10. City of Lakewood –Applicable Planned Use and Zoning Designations**

Designation	Comprehensive Plan <sup>39</sup>		Zoning <sup>40</sup>	
Project Segment / Area	Project Footprint	Adjacent	Project Footprint	Adjacent
City of Lakewood	Industrial, Open Space, Corridor Commercial, Over (Residential Estate), Single Family and ROW	Same as footprint, plus: Industrial; Commercial; Residential; Other(e.g. open space)	Commercial (C1, C2, TOC); Residential (R2, R3, Other (ROW, OSR2)	Same as Comprehensive Plan

According to the Lakewood Zoning Code, Chapter 18A.400 Transportation is defined as a public or private service like a train station or ferry dock. This section also classifies passenger rail stations as a Level 2 Transportation use.<sup>41</sup> Railroad corridors are not specifically defined as a “land use,” which is similar to a road or highway corridor.

### **Is the Project consistent with the policies and regulations adopted by the City of Lakewood?**

A portion of the Project and existing railroad corridor near Gravelly Lake Drive is located within residential and neighborhood business district designations.

Similar to the discussion of the City of Tacoma’s regulations above, the Project would upgrade and increase use of an existing railroad corridor and right-of-way that predates the City of Lakewood’s incorporation in 1996. The existing railroad corridor was an integral component of subsequent land use planning efforts by Lakewood. The Project does not fall into a typical land use category governed by a local zoning code. Rather, the siting of these types of transportation facilities and planning of transportation networks must be coordinated with land use patterns in the area along with applicable regional and local transportation goals and policies.

The City of Lakewood submitted comments to WSDOT in 2010 during the NEPA scoping process and stated that the Project would have potential

<sup>39</sup> Lakewood 2006

<sup>40</sup> C1-Commercial; C2-Commercial; TOC – Transit Oriented Commercial; I1 – Industrial; IBP – Industrial Business Park; R1 and R2 – Residential Estate; R3 and R4-Single family Residential; MR – Mixed Residential; OSR2-Open Space Recreation 2; NC2- Neighborhood Commercial; PI – Public/Institutional

<sup>41</sup> Lakewood Municipal Code, Section 18A.400 states: *Definition of Transportation: “The provision of public or semi public transportation services. Examples include parking garages, park-and-ride lots, commercial parking lots, bus shelters, bus stations, bus transfer centers, passenger rail stations, ferry docks, and other types of public and quasi-public transportation facilities”.* Section 18A400 defines Level 2 Transportation Uses as: *“Transportation uses serving community and regions, such as passenger rail and bus stations, parking facilities, including park-and-rides, and weigh stations.”*

effects on land use, development patterns, adjacent commercial and industrial buildings and leases, and consistency with adopted plans. Additional information can be found in Chapter 5, Project Effects, and the other discipline reports prepared for the Project.

The Project would not include any other activities within the City of Lakewood other than the addition of a section of double track and rehabilitation of the existing rail line. No policy was found that would deem the Project inconsistent with the plans and regulations adopted by the city of Lakewood. Based on this review, the Project is consistent with the policies and plans adopted by the City of Lakewood.

### **What are the planned use and zoning policies and regulations adopted by Pierce County that apply to the Project?**

The study area lies within several comprehensive plan and zoning designations adopted by Pierce County that apply to the unincorporated portion of the study area. Exhibit 11 lists the land use and zoning designations of the railroad corridor that lie within this segment. The Pierce County zoning district locations are shown in Exhibit 8 (Panels 7-10).

The Pierce County Comprehensive Plan and Zoning designations for the unincorporated areas are Rural Military Land, Urban Military Land, Agricultural Resource Land, Reserve 5, and Rural 10.

The majority of both the project corridor and I-5 transportation corridor are located within the Reserve 5 designation which is described as rural areas planned for eventual incorporation into an urban growth area of an incorporated nearby city. Agricultural Resource designation is found near the southern end of the Project near Rail MP17.

**Exhibit 11. Pierce County – Applicable Planned Use and Zoning Designations**

Designation	Comprehensive Plan	Zoning
	<i>Project Footprint and Adjacent</i>	<i>Project Footprint and Adjacent</i>
Pierce County	Agricultural Resource Land	Agricultural Resource Land
Pierce County	Rural 10	Rural 10
Pierce County/Military Reservation	Rural Military Land	Rural Military Land
Pierce County	Reserve 5	Reserve 5
Pierce County/Military Reservation	Urban Military Land	Urban Military Land

The Pierce County Zoning Code, 18A.33.190 Military Lands designation applies to the military reservations located within Pierce County. This designation acknowledges the consistency and coordination required

between local governments and the military. The military reservation lies within the physical boundaries of cities or counties in Washington State but is governed by the US Army.<sup>42</sup> Attachment A provides a summary of these key policies.

## **Is the Project consistent with the policies and regulations adopted by Pierce County?**

The Project would upgrade and increase use of an existing railroad corridor and right-of-way and has been an integral component in local and regional land use planning efforts. In addition, the entire Project lies within a pre-existing rail corridor established in the late 1800s.

The Project does not fall into a typical land use category governed by a local zoning code. Rather, the siting of these types of transportation facilities and planning of networks must be coordinated with land use patterns in the area along with applicable regional and local transportation goals and policies.

As required by the GMA, countywide planning policies were adopted by Pierce County in coordination with the 23 cities and towns that lie within its boundaries. Development of this policy document established a framework for the county and municipalities to adopt comprehensive plans that are consistent with each other and also GMA. The adopted policies addressed regional and local goals and objectives for affordable housing, resource lands, including agriculture, economic development, education, historic, cultural and archeological preservation, open space, sensitive areas, urban growth and transportation. Countywide Policy 13 identifies and promotes travel alternatives to reduce the number of vehicle number and miles traveled.<sup>43</sup>

No policy was found that would deem the Project inconsistent with the plans and regulations adopted by Pierce County. Based on this review, the Project is consistent with the adopted countywide planning policies and also with the comprehensive plan and zoning regulations adopted by Pierce County.

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<sup>42</sup> *Pierce County Code, 18A.33.190 Military Lands, Purpose. To recognize Urban Military Lands (UML) as portions of the Federal and State Military Installations within unincorporated Pierce County Urban Growth Area and to recognize Rural Military Lands (RML) as portions of these Installations within unincorporated Pierce County outside the Urban Growth Area. The autonomy associated with the federal ownership in combination with the unique character of the military operations and support structures is not typical of civilian land uses. Urban Military Lands and Rural Military Lands are designated on the Comprehensive Plan Land Use Designations Map but are not represented in the Use Classification Tables because Pierce County does not govern land uses within these designations. The classifications are a mechanism to recognize the presence of urban and rural areas within the military installations.*

<sup>43</sup> *Pierce County 2009*

## Is the Project compatible with the area military reservation plans?

The South Sound Military and Communities Partnership consisting of local and regional public agencies, including WSDOT, along with military representation developed the JBLM Growth Coordination Plan (Growth Plan) in 2010. Developing the Growth Plan facilitated and coordinated various long range regional and local GMA, transportation and military master planning efforts in order to plan and prepare for potential effects of continued military growth in an effective manner and maintain and enhance the quality of life for local communities and the region as a whole.

Extensive collaborative planning efforts are ongoing between multiple agencies to efficiently plan for future growth of military personnel and civilians on and off base while managing transportation safety and congestion issues. The final Growth Plan identified a need to direct future military related growth to already developed urban centers and infill areas. It also identified land use compatibility concerns related to training and noise impacts by JBLM installations and training exercises, and adjacent sensitive uses, like residential.<sup>44</sup> The Growth Plan includes recommendations and strategies to improve regional mobility.

The plan acknowledged the Project planning efforts along with the potential for the Project to further affect JBLM, Camp Murray (a Washington National Guard/Washington Military Department facility), the Tillicum neighborhood, and the region due to current accessibility and transportation congestion.<sup>45</sup> Additionally, the plan mentions local concern regarding the Project's increase in trains, numerous at-grade crossings and their proximity to I-5, safety, and operational delays. These concerns were also relayed in correspondence that WSDOT received from JBLM during the scoping and planning processes for the Project<sup>46</sup>. However, the plan concludes that the Project would improve on-time reliability, reduce rail congestion, and provide enhanced service without affecting freight capacity. Further, the plan mentions several planned projects intended to improve access to the JBLM. In addition, the Washington National Guard's Camp Murray Gate Relocation project is under construction, designed to address congestion and security concerns associated with the Berkeley Street Southwest/Union Avenue Southwest intersection in Tillicum. Additionally, concerns specific to potential Project land use effects to military reservation plans and facilities were not identified<sup>47</sup>.

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<sup>44</sup> *US Army 2010*

<sup>45</sup> *US Army 2010a*

<sup>46</sup> *US Army 2010b*

<sup>47</sup> *US Army 2010b*



While the Project would slightly increase the average delay (by approximately five seconds or less) at some intersections, a number of intersections would experience reduced delays, including reduced delays at the two Thorne Lane Southwest interchange ramp intersections in the Tillicum neighborhood. Improvements to the traffic signals at the grade crossings would minimize effects to the neighborhoods and reduce delays at the intersections. Further, proposed safety features at specific at-grade crossings would be improved, which would benefit both roadway and rail traffic mobility.

Based on the Growth Plan's consideration of the Project and other constructed or proposed mobility improvement projects, coupled with Project-related improvements, the Project itself is compatible with the adopted Growth Plan. However, implementation of recommended mobility improvement projects listed in the Growth Plan and ongoing local community, regional, and military planning efforts are imperative to accommodate military and regional growth and address related mobility issues.

### **What are the planned use and zoning designations, and is the Project consistent with the policies and regulations adopted by the City of DuPont?**

The comprehensive plan and zoning designations for the City of DuPont were reviewed but not summarized in detail for this report as the Project is located outside of the city limits and urban growth area boundaries of DuPont. Only portions of a few (approximately 12) land uses exist in the study area with the majority consisting of right-of-way or vacant lands. The Project is separated from these land uses by a major arterial and two I-5 interchanges.

Review of the adopted plans show a combination of commercial, mixed-use and open space designations in the area of the railroad and I-5 corridors. The City of DuPont submitted comments to FRA and WSDOT in 2010 during the NEPA scoping process and stated that the Project would have potential effects to both existing and future land use and development patterns, and that residential and commercial structures existing next to the railroad corridor. Specific concerns were related to the potential noise and vibration effects to these uses. Additional information can be found in Chapter 5, Project Effects and the Noise and Vibration Discipline Report prepared for the Project.

## Is the Project consistent with state or regional transportation plans?

In 2006, WSDOT prepared a *Long Range Plan for Amtrak Cascades* that identified the need for development and improvement of intercity passenger service, specifically the goals of increasing reliability and safety while decreasing travel time. This long range plan updated previous plans developed since the early 1990s. The Project was identified in 1992 as a way to implement passenger service goals to improve service and reliability.<sup>48</sup>

In 2008, the Puget Sound Regional Council (Council) adopted *Vision 2040* as a common strategy to plan for the region's population and economic growth over the next few decades. The Council includes local, state, military and federal agency representatives and oversees the coordination in the Puget Sound area of critical transportation functions of moving freight, goods and services and provides a framework for long range transportation planning and recognizes linkages between transportation and land use planning, among others. The adopted strategy includes multicounty planning policies and prioritizes transportation projects and services that result in efficiencies, increased airport capacities, and reduced trips and increased choices – such as transit, ferry, trail, bike lanes, and passenger rail, and also improved mobility. Attachment A provides a summary of these key policies.

The Project would implement local and regional transportation plans by the consolidation of the multi-mode train station at Freighthouse Square and improve overall passenger rail service by using an alternative route and bypass of Point Defiance and Puget Sound shoreline.

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<sup>48</sup> WSDOT 2006

# Chapter 5 – Potential Project Effects

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This section provides an overview of the potential effects to existing and planned land uses that would occur by the construction and implementation of the Project. This includes the physical improvements and permanent operational changes that are part of the Project.

## What are the Federal Railroad Administration requirements for identifying effects?

The FRA's procedures for considering environmental effects for compliance with NEPA regulations requires a determination if the Build Alternative will or will not have a foreseeable significant effect on the quality of the human environment which includes land use. FRA guidance includes quantification and measurement of each effect identified the likely significance of the effect, the magnitude of the Build Alternative, and whether the effects are beneficial or adverse.

Based on FRA criteria and guidance for NEPA compliance, and review of other rail projects and their associated analyses, for the purposes of this report, land use effects could result if the Project results in:

1. More than a moderate effect due to incompatibility with adjacent land uses and/or inconsistency with land use plans
2. Displacement of a substantial number of housing units or commercial uses
3. Extensive community disruption or severance, and
4. Effects to prime and unique and farmland of statewide or local importance.

## What is a project effect?

Effects of a project can be direct, indirect or cumulative. Effects are also characterized as permanent or temporary, and/or long term and short term.

Direct effects are caused by the action and occur at the same time and place. Direct land use effects could include full or partial acquisition, disturbance during construction or changes in existing access. Indirect effects are also caused by the action but are later or farther removed in distance but are still reasonably foreseeable. Indirect land use effects may occur as a result of direct effects due to changes in noise, air quality or visual quality. Indirect effects may also include growth or pattern of land use changes that may or may not be identified in local or regional plans.

Cumulative effects are those that result from the incremental effect of the action when added to past, present and reasonably foreseeable future actions.

## What are the land use related effects identified for the Project in other discipline reports?

Other discipline reports that were prepared for the Project identified potential minor land use related effects that may occur during construction (e.g. temporary; short term) as well as implementation and operation of the trains (e.g. permanent; direct and indirect). The following includes a brief summary of potential operational effects to land use. Additional discussion can be found in the respective reports.

- *Visual*: Minor effects to scenery and privacy for occupants of adjacent buildings and minor effects visual quality of the new route compared to the existing route.<sup>49</sup>
- *Noise and Vibration*: Temporary noise effects to sensitive uses (residential) due to construction activities would occur in segments as the construction activities progress through the project corridor. Moderate noise effects to a total of 12 residences at two locations due to at-grade signal devices (wayside horn noise). Vibration effects to 16 residences in two locations due to the proximity of the railroad and train operation; effects can be minimized by track treatment. The residential effects are located within the city limits of Lakewood<sup>50</sup>.
- It should be noted that the 6 residences that would experience Moderate noise effects north of the Lakewood Station at Rail MP 9.5 (108th Street Southwest), are located within a Residential zone, Commercial/Service zone, or Quasi/Public Facilities zone. . The other 6 residences that would experience Moderate noise effects are located within a Residential zone south of the Lakewood Station at Rail MP 10.5 (Bridgeport Way Southwest). Five of the residences that would experience vibration effects are located within a Residential zone just north of the Lakewood Station at approximately Rail MP 10.0 (near 112th Street Southwest). The other 11 residences that would experience vibration effects are located further south of the Lakewood Station at Lake Street Southwest (Rail MP 13) within Residential or Commercial zones.
- *Transportation*: Minor effects due to 5 second increase in delay at intersections; but rail capacity and function improved overall by other physical and operational upgrades.<sup>51</sup>

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<sup>49</sup> WSDOT 2012e

<sup>50</sup> WSDOT 2012f

<sup>51</sup> WSDOT 2012g

- *Public Services*: Minor effects due to transportation delays listed above.<sup>52</sup>
- *Socioeconomic*: A Minor to Moderate impact to community cohesion is estimated due to the noise and vibration effects identified above. A hard-to-measure but slight increase to the regional economy is estimated. No effects to relocation or disruption, commercial or residential land values, public access and safety, or environmental justice populations have been identified.<sup>53</sup>

## **What are the construction effects to land use by the Project?**

Construction effects to adjacent land uses associated with the Project would occur. This includes the disruption of traffic to and from local businesses, industries, schools and residences, and also the delay of public services like police and fire response. It would also include noise effects during construction and also the final remediation actions necessary to address railroad right-of-way encroachments by adjacent land uses. Once constructed, the short term disturbances would cease.

## **What are the operational effects to land use by the station relocation component of the Project?**

Based on the analysis completed for this report, operational effects to existing and planned land uses would result from the Tacoma Amtrak Station relocation component of the Project by enhancing the accessibility to and between the modes of transportation in the downtown Tacoma area. The relocation to the Tacoma Dome Station at Freighthouse Square is consistent with adopted plans specific to the revitalization and redevelopment of the Tacoma Dome neighborhood and enhancing the pedestrian connection between rail services, with the goal to create economic opportunities at local, statewide and multi-state levels by the increased reliability and frequency of alternative modes of transportation.<sup>54</sup>

## **What are the operational effects to land use by the bypass route component of the Project?**

Implementation of the Project would re-route passenger rail traffic away from the Puget Sound shoreline to an existing interior route used by freight and commuter trains. For the planned rerouting, the Project would upgrade and improve the existing railroad crossings and infrastructure.

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<sup>52</sup> WSDOT 2012h

<sup>53</sup> WSDOT 2012

<sup>54</sup> Tacoma 2001

The relocated Amtrak route improvements (the Project) are intended to result in long term, positive effects for regional travellers by having a reliable and more frequent passenger rail system. Freight traffic on the Puget Sound route would no longer conflict with Amtrak trains. Other potential positive effects may be realized in the integration of local and regional transit systems proposed by the Tacoma Amtrak Station relocation. Adding inter-city passenger rail to an existing multi-modal transit center will provide travelers and commuters with additional travel options. Furthermore, the station relocation aspect of the Project may have a minor or indirect role in promoting commercial and retail land uses to locate near the Tacoma Dome Station.

### **What are the potential effects to development trends?**

As the project is shifting an existing railroad line to another existing railroad corridor and would not result in an increase in highway traffic capacity, it is not anticipated to facilitate an increase in growth or development in the Project study area. Overall, the continued growth and development of the study area would occur as planned in each jurisdiction regardless of Project implementation as transportation is only one of the many complex factors that affect and influence the location and extent of urban and rural growth.

### **Conflicts with adjacent land uses**

The Project would result in temporary construction effects such as visual distractions, traffic detours and delays, utility service disruption, noise, and air quality issues (e.g., dust or construction vehicle exhaust) which can interfere with land uses on adjacent properties. As listed in relevant discipline reports, minimization measures would be implemented to reduce construction effects. Traffic delays would increase during the construction period due to construction vehicle traffic, temporary lane closures, and occasional weekend road closures, which could affect adjacent land uses, such as businesses. A traffic control plan would be implemented to keep access to local land uses generally open and functional throughout construction. Construction effects would be minor and short-term and would not have a long-term effect on adjacent land uses.

Operation of the proposed Project would affect adjacent land uses by the high speed and more frequent trains traveling through the communities and as identified in other relevant discipline reports, the potential effects are expected to be minimal to moderate. The potential conflicts with adjacent land uses include:

- *Visual*: minor decreased privacy for occupants of buildings adjacent to the rail line due to additional trains.
- *Noise and vibration*: moderate noise effects at two receptors; vibration effects at two sites.
- *Transportation*: increase in vehicle queue length at some crossing locations due to increased road blockages from train crossings; decrease in vehicle queue length at some crossing locations due to signal improvements; improved Level of Service at four intersections and decreased at four intersections; long-term improvement to safety at several existing at-grade crossings; sidewalk improvements at North Thorne Lane Southwest, Berkeley Street Southwest, and Barksdale Avenue.
- *Socioeconomics*: minor effects to community cohesion, public access, and safety from increased number of trains; and improve connectivity and safety at some locations.
- *Public services*: increased train trips resulting in more frequent grade closings during pass-bys, which may delay emergency service vehicles and extend travel time to medical centers, government offices and schools.
- *Air Quality*: temporary effects due to truck movement and the lay-down of materials.

### **Would the Project acquire or displace existing land uses?**

Property acquisition for additional parking west or north of Freighthouse Square is anticipated as a part of the Project. The current use of the properties proposed for acquisition is parking. Therefore, this acquisition would not displace existing land uses. The remainder of the Project would not acquire additional property and would be located within existing railroad right-of-way owned by Sound Transit, Tacoma Rail, and BNSF. There are no plans to expand the right-of-way to construct and implement the Project. Therefore, the Project would not displace any additional existing land uses or acquire additional property. WSDOT would enter into a lease agreement with the owners of Freighthouse Square, to accommodate the Amtrak Station at that location.

As discussed previously, resolution to several encroachments onto the railroad right-of-way area may affect parking and storage elements of the adjacent commercial or industrial uses. The two building encroachments require additional review and discussion with the underlying railroad owner. These adjacent uses with encroachments may or may not be in compliance with applicable zoning standards that generally require minimum setbacks for buildings, and either minimum on-premise parking area size and spaces to serve the particular use or off-site parking agreements with adjoining property owners. The businesses with the encroachments that are pending resolution are unlikely to be displaced.

Displacement and relocation of residences and businesses is not anticipated as part of the Project.

**Would the Project affect any shorelines or critical areas?**

Construction of the Project would pose some risk to surface and groundwater from sediment transport and/or pollutant spills. However, the Project would minimize or eliminate these risks through the implementation of required Best Management Practices. Therefore, no construction effects are expected.

No direct effects to water resources are expected from operation of the Project. The Project is not expected to result in effects to surface waters through changes in volume or water quality. In addition, no changes would be made within the boundaries of regulated shorelines or floodplains.

No effect to ESA-listed wildlife or plant habitat is anticipated as a result of the Project.

No effects to wetlands are anticipated. All four wetlands occur outside the Project footprint and would not be subject to excavation or fill. No effects to wetlands buffers are expected as construction activities would be restricted to the existing railroad fill prism.

**Would the Project affect any Section 4(f) or 6(f) resources?**

The Project would not acquire or use identified 4(f) or 6(f) properties.

**Inconsistency with adjacent land use plans and zoning regulations**

The Project is consistent with adopted land use plans, would implement adopted policies reviewed for this report, and would not result in displacement of existing land uses. No policy or zoning regulation was found that the Project would violate or require regulatory or development standard amendments to be adopted in order to implement the Project. Therefore, the Project would not result in conversion of existing, adjacent land uses or affect long-term development potential or patterns of adjacent land within the study area. The continued growth, development, and re-development in the study area would occur as forecasted and planned for in land use and transportation plans.

**Displacement of a substantial number of housing units or commercial uses**

Property acquisition for additional parking west or north of Freighthouse Square is anticipated as a part of the Project. The current use of the



properties proposed for acquisition is parking. Therefore, this acquisition would not displace housing or commercial units. The Project would not displace any additional existing land uses or acquire additional property. Therefore, no effect to residential or commercial uses would result.

### **Extensive community disruption that effects adjacent land uses**

Implementation of the Project would affect adjacent and planned land uses by the high speed and more frequent trains traveling through the communities. However, the estimated daily 12 minute total delay of traffic at crossings is not significant. In addition, many of the crossings would be upgraded and local connectivity ultimately improved over existing conditions.

The topography of the Project area, the existing railroad corridor, and I-5 currently separates portions of communities, such as the Tillicum neighborhood, and also parts of the JBLM. The degree to which the Project further isolates the population is minor<sup>55</sup> as the existing railroad corridor which was established in the late 1800s pre-dated much of the subsequent land development, as well as the I-5 corridor established in the 1960s. Existing development within the study area occurred within the constraints imposed by these existing geographic features, land use patterns, and transportation systems, and guided future development in the implementation of GMA plans.

## **What are the indirect and cumulative effects to land use by the Bypass Route component of the Project?**

### **Indirect Effects**

The Project is located within an existing rail corridor and urbanized area. FRA and WSDOT considered whether the Project would facilitate an increase in growth or development in the Project area. FRA and WSDOT determined that the project is not likely to directly or indirectly affect growth or land use patterns in the cities of Lakewood, DuPont, or Tacoma. As there would be no new Amtrak stops within the corridor, individuals utilizing passenger trains would continue to travel through the study area to their destinations, in the same way as the current Amtrak inter-city passenger train service. Generally, inter-city passenger rail transports passengers between well-defined urban centers, rather than other commuter rail or mass-transit modes which may transport passengers from an urban center to suburban areas. Growth and development in the study area would occur as forecasted and planned by each jurisdiction regardless of Project implementation as transportation is only one of the many

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<sup>55</sup> WSDOT 2012

complex factors that affect and influence the location and extent of urban and rural growth.

The Project uses an existing right of way rather than creating a new rail corridor. FRA and WSDOT did not identify any indirect effects from the proposed improvements to the rail line or the crossings. FRA and WSDOT also considered other features of the Project (such as utility improvements) to assess whether they may influence growth or indirectly facilitate other developments.

### **Cumulative Effects**

Under NEPA, cumulative effects result from the incremental effects of the Project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes the action. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. Cumulative effects include past, present, and reasonably foreseeable future actions within the study area that, together with the Project, may have a cumulative effect on the environment. Past and present actions affecting environmental resources are reflected in the existing conditions of the Project area. Reasonably foreseeable future actions include those that are being implemented or have been implemented recently, including planned and funded transportation improvements, and other local and regional infrastructure proposals. Development trends, existing development, and reasonably foreseeable projects were considered in assessing the potential cumulative impacts associated with the Project. Development trends and existing development are discussed in Chapter 3 above and reasonably foreseeable future actions are listed in Exhibit 12 and Exhibit 13 below.

FRA and WSDOT also considered the expansion of JBLM which includes numerous projects and proposed projects as outlined in the Grow the Army FEIS and other documents. FRA and WSDOT carefully considered the prior studies related to the JBLM plans, and the comprehensive assessment conducted by the South Sound Military and Communities Partnership, JBLM Growth Coordination Plan<sup>56</sup>. JBLM disclosed a significant cumulative effect to transportation and social elements from the Combat Aviation Brigade (CAB) stationing and in the FEIS for the Fort Lewis Army Growth and Force Structure Realignment. FEIS / ROD<sup>57</sup> and references the Grow the Army FEIS. The Point Defiance Bypass is listed as one of the “multiple long-term capital improvements that are being planned in the region that will accommodate the increase in traffic.”<sup>58,59</sup>

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<sup>56</sup> *US Army 2010.*

<sup>57</sup> *US Army Environmental Command 2011.*

<sup>58</sup> *US Army Environmental Command 2011.*

WSDOT and FRA concluded that the Project would not affect land use or induce growth and development in the region. While noted under potential indirect effects, redevelopment around Freighthouse Square could occur; however it would be consistent with land use plans and policies for that area. The land is highly urbanized in the Project corridor and the Project would not contribute to a cumulative effect on land use because its direct and indirect effects are negligible relative to the overall development in the region.

**Exhibit 12: Recent Development Proposals in Project Area <sup>60</sup>**

<b>Residential Development</b>	<b>Jurisdiction</b>
<b>Subdivide 7 acres into 33 Single Family Residential Lots 11604 Interlaaken Dr. S.W.</b>	<b>Lakewood</b>
<b>Creekside Village – Construct 14 buildings to create 160 multifamily dwelling units, parking, recreation and park facility on 12.8 acre site – N of Sequelitchew Ck west of Center Drive</b>	<b>Dupont</b>
<b>Commercial/Nonresidential Development</b>	<b>Jurisdiction</b>
<b>Olympic Moving and Storage 7.17 Acre -- 7010 150th S. W.</b>	<b>Lakewood</b>
<b>Kenworth Truck Dealership -- 12507 Pacific Hwy.</b>	<b>Lakewood</b>
<b>Reddy Ice – Demolish Storage Building and Construct 14,000 sf Ice Warehouse and Distribution Facility – 9635 32nd Ave.</b>	<b>Lakewood</b>
<b>Boo Han International Village, 100,000 sf, w3 story multi-tenant Retail Facility –9122 South Tacoma Way and S. Steilacoom Blvd.</b>	<b>Lakewood</b>
<b>McDonald’s: Construct 3,900 sf Drive Thru Restaurant 15004 Union Ave Tillicum</b>	<b>Lakewood</b>
<b>DuPont Learning Center – 9,275 sf single story building and 42 stall parking lot on 1.16 acres site, McNeil Street</b>	<b>Dupont</b>
<b>CalPortland North Parcel Mining Request – mine 142 acre parcel of existing mineral resource site – Sec 14, 15, 22 T19N, R1E</b>	<b>Dupont</b>
<b>Port of Tacoma Industrial Area Extend Rail Line and Install New 6-Car Facility with Associated Private Road and Stormwater Facilities – 3001 Marshal Ave., Port Industrial District</b>	<b>Tacoma</b>
<b>Demolish 104 Residential Units and Construct 140 Residential Units and Community Center with Parking – 1800 Block S G St and 2500 Block S G (Downtown N of Glass Museum)</b>	<b>Tacoma</b>
<b>Construct 108,00 sf 4-story Parking garage – 1202 Martin Luther King Jr Way (Downtown N of Glass Museum)</b>	<b>Tacoma</b>
<b>Port of Tacoma Industrial Area - Construct Container Terminal and Associated Widening of Blair Waterway &amp; Puyallup Tribe Owned Site – 3320 Lincoln Ave., Port Industrial District</b>	<b>Tacoma</b>

<sup>59</sup> The FEIS for the Fort Lewis Army Growth and Force Structure Realignment adequately assesses the potential environmental and socioeconomic consequences associated with implementing, at Fort Lewis and the Yakima Training Center (YTC)1, the December 2007 (updated in June 2010) ROD for the Final Programmatic EIS for Army Growth and Force Structure Realignment (also known as “Grow The Army”). The FEIS was issued in July 2010 and the ROD issued in February 2011. The action consists of several components including stationing, construction, and training. The FEIS analyzed the environmental and socioeconomic impacts of stationing approximately 5,700 additional soldiers, and their families at Fort Lewis. This includes approximately: 1,900 soldiers; 1,000 Combat Service Support (CSS) soldiers; and, 2,800 soldiers for a medium CAB.

<sup>60</sup> Ecology 2012; SEPA Register, documents filed since Jan 2012

**Exhibit 12: Recent Development Proposals in Project Area <sup>60</sup>**

Residential Development	Jurisdiction
Install 2 Sugar Storage Tanks (74,879 Gal capacity) at Manufacturing Facility – 115 E 27th St. (Near I-5/705 I/C)	Tacoma
Construct New Clover Park Elementary School – 1901 Lakewood Dr.	Lakewood

**Exhibit 13: Transportation Related Projects – Current and Reasonably Foreseeable <sup>61</sup>**

Pedestrian and Transit Improvements	Responsible Entity
Dower Elementary Safe Route to School - Construct curb, gutter and sidewalk, flashing pedestrian signal, and two marked crosswalks on John Dower Rd.	Lakewood
ADA Service - Provide complementary ADA service for disabled patrons in Pierce County	Pierce Transit
Lakewood Station Connection - Construct pedestrian crossing of rail road tracks, bus stop facilities, and bus turn around.	Lakewood
Tacoma/Lakewood Commuter Rail Project - Design and construct stations, parking, bus/transfer, pedestrian, and bike facilities; grade separated crossing at Pacific Ave. and S. 26th St.; complete environmental documentation.	Sound Transit
Tacoma Link Expansion Project - FTA Small Starts alternatives analysis for Link service expansion in downtown Tacoma, conceptual engineering and NEPA Scoping.	Sound Transit
Local Roadway Improvements	Responsible Entity
Gravelly Lake Drive - Construct curb, gutter and sidewalk, street lighting, upgrade signals and ADA ramps on both sides of Gravelly Lake Drive between 100th St. and Bridgeport Way.	Lakewood
Madigan Access Improvement - Construct roadway, bridge, ramp and signal modifications to improve safety from Berkeley St. to Union Ave S. W.	Lakewood
Bridgeport Way – Steilacoom Blvd. to 83rd Street S.W. - Widen to provide continuous two-way left-turn lane, street lighting, bicycle facilities, storm drainage and landscaping. Signalize 86th Street intersection.	Lakewood
Steilacoom Blvd. – Farwest Dr. to 87th Ave. S. W. - Upgrade traffic signal and improve intersection lighting. Upgrade cross-walk and trim vegetation to improve sight distance.	Lakewood
Lakewood Traffic Signal Upgrades Phase 3 – Fiber Interconnect- Provide fiber cable interconnect to upgrade signals for ITS.	Lakewood
Regional Roadway Improvements	Responsible Entity
I-5 DuPont to Lakewood Corridor Planning - Joint Base Lewis-McChord and cities of Lakewood and DuPont in coordination are submitting grants for the Interchange Justification Report and NEPA. \$1,001,000 (including \$630,000 in federal funds, balance in state/local funds)	WSDOT
I-5 SR 510 to SR 512 Mobility Improvements - Construct ITS, strategic intersection improvements, hard shoulder running to reduce congestion in the vicinity of JBLM.	WSDOT
I-5 Fort Lewis Congestion Fiber Optics - Extend fiber optic cable from Olympia to Thorne Lane to enable ITS project intertie.	WSDOT

<sup>61</sup> WSDOT 2012j, Puget Sound Regional Council 2011, and WSDOT 2012k.

**Exhibit 13: Transportation Related Projects – Current and Reasonably Foreseeable<sup>61</sup>**

Pedestrian and Transit Improvements	Responsible Entity
I-5 and I-705 and Railroad Crossing SB Seismic Retrofit- Retrofit southbound bridge to meet current earthquake standards.	WSDOT
I-5 and I-705 and Railroad Crossing NB Seismic Retrofit - Retrofit northbound bridge to meet current earthquake standards.	WSDOT
I-5 M St. to Portland Ave. Northbound Widening and Bridges - Add NB and SB HOV lanes to I-5 from M Street to Portland Ave. to I-5. Demolish and reconstruct Pacific Ave., McKinley Ave. and L Street overcrossings.	WSDOT
I-5 M St. Bridge Seismic Retrofit - Retrofit bridge to meet current earthquake standards.	WSDOT
I-5 Port of Tacoma Rd. to King Co. Line HOV Lanes - Construct HOV lanes from MP 136.61 to MP 139.50.	WSDOT
I-5 Portland Ave. to Port of Tacoma Rd Northbound HOV - Construct NB HOV lanes, new northbound bridges across the Puyallup River, begins work to reconstruct I-5/SR 167 interchange and replaces I-5/Portland interchange.	WSDOT
I-5 Portland Ave. to Port of Tacoma Rd. Southbound HOV - Construct SB HOV lanes, new southbound bridges across the Puyallup River, and completes work on the I-5/SR 167 interchange.	WSDOT
I-5 SR 16 Interchange: Rebuild Interchange- Replaces the Nalley Valley bridge, reconstructs ramps and structures. Prepares I-5 and SR 16 for HOV lanes.	WSDOT
I-5 SR 16 Eastbound Nalley Valley HOV- Reconstruct eastbound Nalley Valley interchange, ramps, and structures. Prepares for HOV lanes on I-5 and SR 16.	WSDOT
I-5 SR 16 Interchange: South to North Ramp Seismic Retrofit - Retrofit south to north ramp bridge to meet current earthquake standards.	WSDOT
I-5 SR 510 to SR 512 Mobility Improvements - Construct ITS, strategic intersection improvements and hard shoulder running to maximize system efficiency.	WSDOT
I-5 Vicinity of Joint Base Lewis McChord: Install Ramp Meters - Install ramp meters, cameras, detection loops, stop bars and illumination, interconnect cameras to Tacoma TSMC.	WSDOT
I-5 Vicinity Center Drive - Realign Center Drive and change access control to improve JBLM egress	WSDOT
SR 162 Puyallup River Bd. Replacement - Construct new bridge to replace existing structurally deficient bridge...	WSDOT
SR 512 108th St. E. to SR 167 Install Cable Barrier - Upgrade existing 3-cable median barrier to 4-cable median barrier.	WSDOT
Regional Rail Improvements	Responsible Entity
Vancouver - Rail Yard Bypass Track - Construct new bypass tracks in rail yard to allow passenger trains to bypass congestion caused by freight trains and new vehicle/pedestrian/bicycle bridge overcrossing.	FRA / WSDOT
Kelso Martins Bluff – Toteff Siding Extension - Extend existing siding one and construct overcrossing at Toteff Road.	FRA / WSDOT
Kelso Martins Bluff – New Siding - Construct new and upgrade existing siding track to allow freight trains to move on and off of main line at higher speeds.	FRA / WSDOT
Kelso Martins Bluff – Kelso to Longview Junction - Construct new track segment and upgrade existing track to allow freight and passenger trains to pass each other and reduce congestion.	FRA / WSDOT

**Exhibit 13: Transportation Related Projects – Current and Reasonably Foreseeable<sup>61</sup>**

Pedestrian and Transit Improvements	Responsible Entity
Seattle – King Street Track Upgrade - Reconfigure main line tracks accessing King Street Station to improve passenger train access and increase service for Amtrak, Sound Transit, and BNSF.	FRA / WSDOT
Everett – Storage Track - Construct two new departure/receiving tracks parallel to existing delta Yard tracks to eliminate passenger/freight conflicts.	FRA / WSDOT
Corridor Reliability Upgrades (South) -Clean ditches and grading to improve drainage, cleaning and replacing ballast, replace ties and resurface rail as needed to improve track reliability and improve travel time.	FRA / WSDOT
Advanced Wayside Signal System -Upgrade advanced signal systems components at all control points, sidings and turnouts between the US-Canada border and Vancouver, WA.	FRA / WSDOT

# Chapter 6 – Recommended Minimization Measures

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No direct, moderate or significant adverse effects to land use were identified in Chapter 5 of this report; therefore no land use-specific minimization recommendations are discussed in this Chapter.

To protect against unanticipated impacts and to further reduce the incidence of minor effects, the following minimization measures and best management practices may be implemented:

## *Air Quality*

- Spray water and operate water trucks on haul roads.
- Cover and/or wet materials onsite and during transport, or provide adequate freeboard.
- Provide wheel washers to remove particulate matter that vehicles would otherwise carry offsite.
- Remove mud and windblown dust deposited on paved roadways.
- Maintain construction equipment with required pollution-control devices.

## *Noise and Vibration*

- Ensure all construction activities comply with local noise regulations, including no nighttime work unless a variance is obtained.
- Set construction hours, particularly near residences.
- Proposed schedules for the Amtrak Cascades and Coast Starlight indicate that trains will run after 7 a.m. and until 10 p.m., eliminating noise effects during common sleeping hours.
- Use natural and artificial barriers to shield against construction noise (e.g. baffles, existing topography, or stockpiles of construction materials).
- Strategically place stationary equipment to reduce effects to noise-sensitive receivers.
- Equip each internal combustion engine with a manufacturer-recommended muffler.
- Use vibratory or hydraulic insertions for pile driving.
- Implement coordination framework during design and construction to ensure freight delivery meets customer needs during construction.

### *Transportation*

- Develop a traffic control plan during construction that includes (but is not limited to) the following minimization measures:
  - At least one lane will be kept open at crossings except for a short period of time when the new track is being installed across the roadway.
  - Traffic control personnel and/or traffic control signs will be provided at locations where construction activities are occurring.
  - Detour routes will be provided when roads are closed due to track construction.
  - A uniformed police officer will manage traffic movements when traffic signals are temporarily turned off.
  - WSDOT and FRA will coordinate the development of the traffic control plans with local jurisdictions.
  - Local agencies, the public, school districts, emergency service providers, and transit agencies will be informed of the changes to travel in advance through the media and the Project website.
  - Pedestrian and bicycle circulation will be maintained as much as possible during construction.

### *Public Services and Utilities*

- Coordinate and communicate with public service providers to identify ways to minimize delays.
- Coordinate with utility owners to determine conflicts and determine a suitable resolution to avoid or minimize disruption.
- Post construction schedules near affected crossings and provide the information to residents and businesses in the area.
- Initiate the Operation Lifesaver program on railroad safety for community members.

Continued transportation and land use planning coordination with local jurisdictions, neighboring communities, and military and regional planning efforts is recommended to further enhance the level of services and quality of life, and overall, plan for continued economic and population growth in the Puget Sound.



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# Attachment A

## Key Land Use and Related Transportation Goals and Policies

Jurisdiction	Goal or Policy No.	Description
<i>Regional</i>		
Puget Sound Regional Council, Vision 2040	MPP-T-19	Coordinate regional planning with railroad capacity expansion plans and support capacity expansion that is compatible with state, regional, and local plans.
Pierce Countywide Planning Policies	13	<p>The County, and each municipality in the County, shall provide the following facilities to encourage alternatives to automobile travel and/or to reduce the number of vehicle miles traveled (modal split, trip generation and trip length):</p> <p>13.1 structural alternatives (public transit [fixed guideway/rail systems, buses, paratransit services]; construction of new high-occupant vehicle lanes; limitations on highway/roadway construction; carpool/vanpool facilities; non-recreational bicycle/pedestrian facilities);</p> <p>13.2 non-structural/regulatory alternatives (growth management [concurrency; urban growth areas]; road/congestion pricing; auto-restricted zones; parking management; site design; ridesharing incentives).</p>
<i>Pierce County</i>		
Comprehensive Plan	19A.30.210 Joint Land Use Study.	The Joint Land Use Study (JLUS) is a collaborative planning effort involving the military installations of Fort Lewis, McChord AFB and Camp Murray (Washington National Guard) and ten local governments surrounding these military installations. Its broad goal is to encourage each jurisdiction to practice compatible development and redevelopment in each affected jurisdiction that balances sustaining the local military missions with long-term community land use needs. It is the responsibility of the participating jurisdictions to ensure that JLUS recommendations are taken into account when developing land use plans and other related planning documents.
Comprehensive Plan	19A.80.060 Transit	<p>H.) Transit Access. Pierce County encourages transit access by:</p> <ol style="list-style-type: none"> <li>1. Improving bicycle and pedestrian access to proposed transit centers, rail stations and bus stops.</li> </ol>
Comprehensive Plan	19A.80.090 Other Motorized Transportation	<p>F. ) Rail Service Preservation and Enhancement. Encourage local communities, the Washington State Department of Transportation, railroads, labor groups and shippers to work together to:</p> <ol style="list-style-type: none"> <li>1. Improve passenger and freight rail service;</li> <li>2. Identify and preserve rail lines which currently provide transportation and economic benefits to Pierce County;</li> <li>3. Coordinate and implement passenger and freight rail service preservation projects consistent with a regional transportation program; and</li> <li>4. Consider localized rail service as a means of public transportation</li> </ol>

Jurisdiction	Goal or Policy No.	Description
<i>Pierce County</i>		
Comprehensive Plan	19A.80.090 Other Motorized Transportation	<p>G. Preserving Rail Rights-Of-Way. Strongly encourage the preservation of rail rights-of-way for future rail or other transportation purposes. Actions to preserve rail rights-of-way include:</p> <ol style="list-style-type: none"> <li>1. Identification of abandoned or to be abandoned rail lines and rights-of-way in conjunction with the state, local communities, railroads, labor groups, and shippers;</li> <li>2. Assessment of potential uses of rights-of-way for different forms of motorized and nonmotorized travel in order to preserve and implement their highest and best transportation use;</li> <li>3. Allocation of funds by the state for the purpose of identified rail lines and rights-of-way; and</li> <li>4. Amendment of RCW (Revised Code of Washington) Chapter 47.76 by the state to implement the December 1988, Washington State Rail Development Commission recommendations, which would modify "rail banking" practices, the acquisition of abandoned corridors, the interim and future use of rights-of-way, and funding procedures.</li> </ol>
<i>City of Tacoma</i>		
Tacoma Dome Plan	Immediate Strategy. 2001 T-29	Encourage Amtrak to make necessary track improvements to co-locate Amtrak station with Sound Transit commuter rail station.
Tacoma Dome Plan	Long-Term Development Concepts (2005-2015) #3	Relocation of Amtrak intercity passenger rail service from the BN line to the Chehalis Western rail line – co-locating with commuter rail line.
Tacoma Dome Plan	Land Use and Development Strategy # 38	If commuter rail extends to Lakewood, consider relocating Amtrak Station to Freighthouse Square to share facilities with commuter rail.
Comprehensive Plan	Implementation Strategy, Action 3.4	Support a frequent and convenient bus, rail, and streetcar network to magnify the impact of planning for movement as pedestrians and Bicyclists.
<i>City of Lakewood</i>		
Comprehensive Plan	Policy LU-17.3	Promote Lakewood Station District for medical and other businesses serving the regional market.
	Policy LU-25.4	Provide incentives for redevelopment of the Lakewood Station area to capitalize on growth and visibility associated with the commuter rail station.
	Policy LU-27.4	Improve pedestrian and vehicular connections across the railroad tracks, Pacific Highway Southwest, and I-5.
	Goal LU-68	In areas, consider the continuation of nonconforming uses that support other specified goals such as economic development, housing, etc., on a flexible basis.
	Policy LU-30.3	Protect prime industrial sites from encroachment by incompatible uses such as housing and unrelated retail activity.
	2.3.2 Single-Family	The Single-Family designation provides for single-family homes in support of established residential neighborhoods. This designation is the primary residential designation in the city.

Jurisdiction	Goal or Policy No.	Description
	<b>2.3.7 Corridor Commercial</b>	The commercial corridors along I-5, South Tacoma Way, Pacific Highway Southwest, and Union Avenue are examples of Lakewood's dominant pattern of strip commercial development. The geographic relationship of the corridors to major road networks and the Lakewood Station promotes employment, services, retail, and business/light industrial uses linked to access to major transportation networks. While the continuous linear alignment is a unifying element, each corridor presents varying challenges and opportunities.
<i>City of Lakewood</i>		
	<b>2.3.14 Open Space and Recreation</b>	The Open Space and Recreation designation provides for public open spaces and recreational uses such as state and municipal parks, preserves, and trails, as well as privately owned facilities such as golf courses, Lakewood Gardens, and cemeteries. Local and regional recreation opportunities are included within this designation. Of special note is the Chambers Creek Properties Master Site Plan, a joint effort of Pierce County and the cities of Lakewood and University Place to develop the Chambers Creek canyon for limited, passive recreation uses. The designation promotes the conservation of public and private sensitive or critical natural resource areas and areas of local interest as open space.
	<b>2.3.10 Industrial</b>	Industrial lands are the working area of Lakewood, integrated into the community economically and environmentally while maximizing a regional economic presence based on Lakewood's geographic position. Properties with an Industrial land-use designation are expected to provide family wage jobs to residents and tax revenues to the City. The Industrial designation provides for regional research, manufacturing, warehousing, concentrated business/employment parks, and other major regional employment uses. Industrial lands depend on excellent transportation and utility infrastructure and freedom from encroachment by incompatible land uses.
	<b>2.3.1 Residential Estate</b>	The Residential Estate designation provides for large single-family lots in specific areas where a historic pattern of large residential lots and extensive tree coverage exists. Although retaining these larger sized properties reduces the amount of developable land in the face of growth, it preserves the historic identity these "residential estates" contribute to the community by providing a range of housing options, preserving significant tree stands, and instilling visual open space into the urban environment. Most importantly, the Residential Estate designation is used to lower densities around the lakes and creek corridors in order to prevent additional effects from development upon the lake and creek habitat and Lakewood Water District wellheads. Maintenance of these lower land-use densities in certain areas west of the lakes also helps maintain reduced traffic volumes and reduce additional traffic safety conflicts in the east-west arterial corridors. These roads are among the most stressed transportation routes in the city, with expansion opportunities highly constrained due to the lakes.
	<b>3.12 Nonconformities</b>	Lakewood is a largely built-out urban area. The historic pattern of land use has occurred in a haphazard manner in many portions of the community. As the City continues to implement its plan for the future, some

Jurisdiction	Goal or Policy No.	Description
		existing development will no longer conform to this plan and regulations. Existing development may fail to conform in terms of the way the land is being used, compared to uses allowed under the area's zoning ("nonconforming uses"), or it may fail to conform to specific development standards such as setbacks, height, bulk, signage, or other regulatory aspects ("other nonconformities"). This section outlines the City's intent in addressing nonconformities of both types.
	<b>3.6 Military Lands Goal LU-35</b>	Recognize that military installations, where federal or state, are unique in character with operations and support structures not typical of civilian land uses.
	<b>Military Lands LU 35.02</b>	The Official Federal Military Installation Master Plans (established in accordance with applicable federal regulations and Joint Planning Agreements) addressing land use, infrastructure and services for the portions of the military installations within the city are adopted by reference to this plan as autonomous subarea plans.