Point Defiance Bypass – Environmental Assessment
Discipline Report Inventory - September 20, 2010

Environmental Discipline Report & Date Published (August 2007 unless noted)	Extent of Impact(s) Identified in DR or Environmental Summary	Methodology per 2007 Analysis	What's changed since 2007? Regulations	What's changed since 2007? Other	EA Scoping -Stakeholder Comments	Type & Level of Update Required 1 = Revised DR; 2 = addendum; 3 = No action needed	Conclusions/ Rationale for Type/Level of update
Air Quality Tech Memo (Aug 2008)	• CONCLUSIONS. Construction and operation emissions would be below the de minimus levels in Gen. Conformity rules. • Current project area meets all NAAQs; Pierce Co. maintenance for Ozone, Carbon monoxide and PM-10 particulates • Based on the maintenance status for CO and O3, the project = exempt from General Conformity requirements if the total emissions CO, VOC, and NOx are each < the General Conformity applicability threshold of 100 tons per year. • Construction related emissions would be < 100 tons/year GC threshold for Nox VOCs and CO • Operational emissions. Would reduce fuel use and emissions due to shorted travel time and distance for trains • The project will also help to accommodate growth in passenger rail traffic in future years after project completion. However, under General Conformity rules, any emissions related to such growth would not be counted toward the exemption thresholds if the emissions were not subject to "continuing program control" of the federal agency making the funding action or approval.	HCM,NAAQs per 40 CFR 50 and WAC 173. Conduct assessment to make a formal Trans Conformity determination	Pending Highway Capacity Manual, 2010	If> 3 years, new conformity determination required per 40 CFR 93.104(d) EPM 425.05(2c)	Tacoma: Update current conditions Clover Park SD: • Envir and emissions -- health hazards near schools at to medically sensitive students Lakewood: • Analyze Diesel engines nuisance odors on residential properties	*2*	Stakeholder comments Regulations, standards and coordination with new Transportation DR findings require a new analysis.
Cultural Resources Survey/Discipline Report Mar. '08	Not likely to effect: 1 listed property and 4 'appears eligible' properties	36 CFR 800 5(a) (last amended 2004)		new database search	None	*2*	Need to review databases for new information and incorporate/update as needed, to be followed by consultation.
Energy Tech Memo (Aug 07)	Based on the current vehicle delays at the ten grade crossings during peak morning and evening peak hours, a total of 10.7 gallons of fuel are consumed each day by idling vehicles as a result of freight traffic during these peak hours. This equates to 1.3 million BTUs each day. • The proposed project will reduce rail traffic congestion because Amtrak passenger trains will no longer be competing with freight traffic along the existing BNSF main line route. • The miles traveled via the proposed project route will be shorter than the existing BNSF main line route. • Fuel consumption will decrease by 17,155 gallons annually (47 gallons per day) for the current service of ten trains per day. The additional pair of trains made possible by the completion of the proposed project will consume 4,380 gallons less fuel annually (12 gallons per day) than they would on the existing BNSF main line route. <u>Vehicle Delays</u> • The total direct energy use for vehicles at the ten at-grade crossings is based on the total length of delay combined for all of the crossings in the year 2020. • The average fuel use is estimated to be 9.45 gallons per day (1.2 million BTUs) during peak morning hour and 32.12 gallons per day (4.0 million BTUs) in the evening hours. Direct: Energy consumption is projected to increase in the project area during rail operations but is not expected to impact the regional energy supplies as it will result in a net reduction of passenger rail energy consumption. The increased passenger train service and consumption of a smaller amount of fuel by each train is supplemented by reduction in energy use by passengers that will otherwise travel by car. Therefore, mitigation is not recommended for the increased direct energy use. Indirect: The project will not stimulate growth within the project study area that could lead to increases in local energy uses.			Include any climate change policies	none	*2*	Regulations, standards and coordination with new Transportation DR findings require a new analysis.
Fish and Wildlife Vegetation Tech Memo (Aug 07)	• Five streams in project area; 2 with fish species present; 2 of which are ESA listed • No Impacts to fish • No impacts or little to non impacts to poor habitats including 31 listed species • No impacts to 9 listed plant species		ESA, GMA	Check Databases	None	*2*	Need to review databases for new information.

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Geology and Soil Discipline Report (Aug 07)	Short term soils and geology related impacts (construction, operational physical)	• Published data, soil survey, topo maps, previous consultant reports, historic photos, BNSF and Shannon/Wilson files • Site visit			none	*3*	Need to review databases for new information.
Hazardous Materials Tech Memo (Aug 07)	• 254 reasonably predictable sites in study area (including Sound Transit and Tacoma Smelter plume); • 13 substantially contaminated sites • Major construction impact, mostly near MP 19.5 by 3 to 7 substantially contaminated sites • No operational	Review of 29 databases; inquires to Sound Transit and WSDOT	various	check databases	none	*2*	Need to review databases for new information.

Land Use Tech Memo (Aug)	• No parkland or Agriculture/farmland in area
	• Construction activities will result in localized impacts in the vicinity of the construction work. These impacts will include noise, air quality, odor, vibration, and traffic congestion or circulation. Construction activities will not significantly affect existing or planned land uses in the study area.
	• Physical. Proposed improvements will not result in changes to existing land use or change planned land uses for the areas affected
	• Operational. The proposed project will not have foreseeable operational impacts on land uses.
		Information was gathered through review of study area mapping, aerial photography, preliminary engineering drawings, comprehensive plans and zoning for Pierce County and the cities of DuPont, Lakewood, and Tacoma. For military areas, aerial photography and windshield survey were mainly used for land use.		check databases/ownership/use	Tacoma-Update current zoning conditions & dev. Standards
					
					Lakewood.
					• Impacts to a developed urban area by 'dividing' it more.
					• Review land use plans
					• Existing commercial/industrial uses park & store stuff in RR ROW (illegally or thru lease). Mostly South of Bridgeport Way SW and Tillicum (53% of adjoining uses encroach).
					  o Could have financial hardship/business closure aka economic.
					  o Provide Lakewood with status on leases/encroachments
					• Add Sound Transit as joint lead or Coop. agency. Ensure coordination with their plans and projects
					• Increased speeds and traffic damage adjacent structures
					• Would Rail recommend city development standard changes and increased setbacks? If needed, unique impacts would result (non-conforming uses, costs of code changes?)
					
					DuPont.
					• Review for impacts to existing and future land use and development patterns, esp those in close proximity. Include Comp Plan and current Development activities
					• Noise/vibration impacts on property values (SOCIAL?)
						2	Stakeholder comments
							
							Need to review databases and city plans/assessor records for new information.

Noise & Vibration Analysis/Discipline Report Mar. '08	*Noise: 3 severe, 32 mod impacts (p 4-11). Vibe: Perceptible = 2 SFR, 4 MFR (p 4-13)*	FRA *High-Speed Ground Transportation Noise & Vibration Impact Assessment* (Oct. 2005)			Tacoma-Update current conditions & mitigate Clover Park SD: Southgate & Tyee Park Elementaries should be assessed. Military Dept. • Camp Murray buildings are too close. Noise level impacts too high. Replace with sound proof windows Lakewood. • Analyze noise pollution on property values and nuisance to residences and recreational areas adjoining the RR. • Outline mitigation commitments in EA • Establish quiet zone designations and install related improvements to improve quality of like by eliminating train horn noise DuPont. • Noise/vibration impacts onto adjacent developments	*1*	Stakeholder Comments Regulations, standards and coordination with new Transportation DR and Noise DR findings require a new analysis. Inclusion of Disruption and Relocation impacts to be incorporated into revised DR.
Visual Quality Tech Memo (Aug 07)	Construction. Temporary equipment Physical. negligible Operational. none	Federal Highway Administration Visual Impact Assessment for Highway Projects including: Visual character, scenic experience, informational content of the landscape using 3 criteria: vividness, intactness, unity			none	*3*	No changes anticipated
Hydrology and Water Quality Tech Memo (surface water) (Aug 07)	Construction. Possibly temporary Physical. No significant increase in impervious surfaces. Operational. Possible due to increase number of trains.	CWA, ECY assessments and water quality standards; Site / GIS evaluation focusing on: • Surface water flow impediment • Groundwater quantity recharge • Water quality pollution increase • Groundwater supply degraded?	2008 water quality assessment results	check databases	none	*3*	Need to review databases for new information.

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Wetlands Tech Memo (Aug 07)	Four wetlands, Class III or IV in study area Construction. Temp to wetland habitat and water quality Physical. none Operational. none	2004 WA state Wetland rating system for Western WA 2004. NWI, etc, site visit	Possible wetland rating systems change?		none	*2*	Need to review databases for new information.
Public Services and Utilities Tech Memo (Aug 07)	The information on existing locations of public service providers and utility lines were established by review of geographic information system (GIS) maps, review of available documents and drawings, and information collected from agency and provider websites Construction. Temporary identified: • School • Fire and police • Public transit • Hospital • Utility-unknown Physical. – NONE Operational • Short delay to all during closures • School bus service by blocked crossings during malfunctions • Fire/police/hospital/transit – same as above			Include potential need to relocate, harden, and/or deepen existing utilities	Lakewood. • Public services emergency response time may be delayed. Esp in Tillicum community. • Construct new 2 lane southbound connector road SW of RR tracks between Gravelly Lane SW and N Thorne Lane. This road is being designed but not funded for construction. OR construct new N Thorne Lane/I5 interchange (Cross Base hwy)	*2*	Stakeholder comments
Social Elements Including Environmental Justice Tech Memo (4f and 6f) (Aug 07) Disruption and Relocation Tech Memo (Aug 2007)	Temporary MINOR construction impacts: <u>Community cohesion</u>: Mostly to northern portion near Tacoma and Lakewood and govt. / commercial center of Dupont. Mostly increased noise, air emissions, traffic circulation, access to neighborhoods and businesses, emergency response. <u>Recreation.</u> Access to <u>Public services</u>. Access <u>EJ:</u> same as community cohesion Physical. No adverse impacts Operational. Increased in some areas. Not disproportionate to low income populations	• EO 12898 • The social elements considered Community characteristics and cohesion, including demographics as a basis for describing Environmental Justice impacts. • Community connectivity. • Recreational facilities, including identification of potential Sections 4(f) and 6(f) parks and recreation resources. • Public services and facilities. • Public access and safety. Information was collected from: aerial photography, available maps, reports and data provided by local jurisdictions, consultations with local officials, and 2000 U.S. Census data for Pierce County and block groups within the study area. A site visit was conducted on November 2, 2006 to view at-grade crossings and neighborhoods within both study areas.			Tacoma: Update current population conditions Clover Park SD: investigate and report conclusions and recommendations for the replacement of a 650 student school on the Southgate elementary property Lakewood. • (added this here but is general comment): EA boundaries not determined. Consider Tacoma and JBLM. Expand to include: 56th St SW (Tacoma) and 72nd St SW (not 74th?) • Public Part Plan needed – use Puget sound Regional Council example • EJ- incorporate WSDOT policies in EA • EJ – ID impacts on mobility of low income/minorities in Tillicum, Lakeview and Woodbrook neighborhoods. Provide mitigation and allow public input on context sensitive solution designs for 3 communities listed above. DuPont. • Impacts to businesses, communities by more train traffic, traffic flow patterns, including heavy rail • Define project limits • Extensive public outreach and participation effort is needed o At grade crossings adequate to mitigate for increased rail use and speeds? o Balance mitigation of impacts with benefits anticipated – include grade separation in EA to make any conclusions	*2*	Stakeholder comments Regulations, standards and coordination with new Transportation DR findings require a new analysis. Incorporate Disruption and Relocation information into updated DR.

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Traffic and Transportation Analysis/Report Mar. 08	*Study is being revised; new counts to be taken in September.*				Tacoma-Update current traffic conditions. Rail Crossing safety at city streets for all trans. Modes. Operation analysis to include use of way-side horns, gates and medians to promote crossing safety and mitigate noise. Clover Park SD: • Service hrs same as bus delivery schedule • Investigate access of rail grades from Barksdale Ave to Steilacoom Blvd SW: o Projected rail use o Projected service times o Projected number of rail cars at switching depots o Number of vehicles impacted o Traffic flow at interchange locations o Traffic flow on local street network o Queuing of vehicles on I-5 o Queuing of vehicles at each interchange location/rail grade o Potential traffic delays • Safety o Location of tracks near school playgrounds with only chain link fence separating o Pedestrian traffic near tracks o Hazard cargo and accidents near schools o Envir and emissions – health hazards o Emergency response Military Dept. • Safety at Berkely and Thorne crossings – should vertically separate • Camp Murray buildings are too close. Noise level impacts • Costs for relocating Camp M gate above and beyond normal should be shared • Rail station closer to main access gates of Fort Lewis and Camp M would expand public trans options to support Fed/State military policies re: energy savings, greenhouse gas. City of Lakewood. • ID the integration and/or incompatibility with other existing transportation, commuting, and transit proposals affiliated with PSRTP, Sound Transit and Pierce Transit • Traffic and circulation for major city/industrial park. – potential queuing problems exceeding ramp capacities • Coordinate with DOT for I-5 ROW impacts: Focused analyses on each intersection: o Bridgeport Way SW and I-5 o Bridgeport Was SW and Pacific Hwy SW o North Thorne Lane SW and I-5 o Berkely Ave SW and Union Ave SW o Berkely Ave SW and I-5 • Upgrade traffic signal timing to set up 'flush' patterns to lessen traffic flow interruptions • Install new signals at Steilacoom Blvd SW and Durango St SW • Examine all intersections that could be impacted (in addn to adjacent). Includes 100St SW and 47th Ave SW; 108th St SW and Halcyon Rd SW. • The proposed elimination of the left turn lanes at Halcyon Rd SW onto 108th St SW will force drivers to Montgrove Ave SW as major point of ingress/egress. Consider neighborhood traffic calming measures • LOS to 3 inner Lakewood intersections degraded during peak commuter times. Modify schedules to reduce impact • SAFETY. Adjacent residents use tracks as pedestrian way and they need to adjust to high speed trains instead of slow (10 mph) • Develop extensive pedestrian safety mgmt plan in consultation with City • Install vandal resistant fencing or barriers • Provide pedestrian path connecting Tillicum and Woodbrook (N Thorne Lane SW to Gravelly Lake Dr SW) with rest of City. • Support grant to design and build a pedestrian bridge across tracks from S Transit Rail station to Lakeview community. • GRADE SEPARATION at all crossings • HEAVY RAIL use may increase in certain areas by new tracks DuPont. • Concerned with more heavy rail traffic • Impacts to traffic flow, specifically Barksdale interchange and other crossings. • Pedestrian, bicycle movement at crossings • Scheduling, timing of operations reviewed & modified to lessen impacts • Review project benefits v. impacts • Reduction in vehicle trips in project area seems unlikely • Integrate/coordinate with other transportation proposals in region	*1*	Stakeholder comments
GRADE SEPARATION							