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NO. 67549-4-1

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COURT OF APPEALS, DIVISION ONE  
OF THE STATE OF WASHINGTON

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CASCADE BICYCLE CLUB, a Washington non-profit corporation,  
FUTUREWISE, a Washington non-profit corporation and SIERRA  
CLUB, a California non-profit corporation

Appellants,

v.

PUGET SOUND REGIONAL COUNCIL, a state regional  
transportation planning organization and a federally designated  
metropolitan planning organization

Respondent,

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 STATE OF WASHINGTON  
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APPELLANTS' REPLY BRIEF

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ORIGINAL

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## I. INTRODUCTION

Nowhere in its Responsive Brief does PSRC dispute appellants' principal contention that implementation of *T2040* would far exceed the greenhouse gas reduction limits that are set by state statute and internationally recognized as necessary to stabilize climate change. Instead, PSRC argues that its work is not subject to those limits and that they are not attainable in any regard. Accepting PSRC's position would effectively mean that the state's GHG reduction requirements would not be binding upon any particular sector of the economy or region of the state and further that no particular sector or region need pay any attention to how its GHG emissions would affect any other part of the state, or for that matter, the global effort as a whole. Because those outcomes conflict with both the Limiting Greenhouse Gas Emissions statute and SEPA, they must be rejected.

## II. ARGUMENT

### A. **The PSRC adopted *T2040* in violation of the GHG reduction statute.**

In their Opening Brief, Cascade Bicycle Club, Sierra Club and Futurewise (collectively, "Cascade") show that RCW 70.235.020 sets requirements for reducing the state's GHG emissions, that those requirements are based on the scientific understanding of the GHG emission reductions needed to stabilize the climate at a level that will maintain human civilization, that those

requirements apply to *Transportation 2040*, and that *T2040* and its four part GHG reduction strategy do not achieve the reductions required by RCW 70.235.020(1)(a). In response, the PSRC principally argues that it is not subject to RCW 70.235.020 and that the statute does not require GHG reductions for the Puget Sound transportation sector in any regard, allegedly on grounds that the PSRC is not an arm of the state and that the statute requires no reductions for any particular region or sector of the economy. For the reasons below, the PSRC is incorrect.

### **1. PSRC is an agent of the state.**

The term “state” (lower case) is synonymous with “the government”<sup>1</sup> and includes all agencies, subdivisions, agents and instrumentalities of the state.<sup>2</sup> The PSRC of course is a creature of statute, organized under the state Interlocal Cooperation and the Regional Transportation Planning Organization statutes and the federal highway act and transportation acts.<sup>3</sup> For purposes of planning for transportation programs and projects and directing

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<sup>1</sup>*City of Seattle v. Fontanilla*, 128 Wn.2d 492, 504, 909 P.2d 1294, 1301 (1996).

<sup>2</sup> *State v. Durham*, 87 Wn.2d 206, 211, 550 P.2d 685 (1976) (“The term ‘state’ is all-inclusive ... and embraces not only the state but its political subdivisions.”). See also, *Wash. State Dept. of Transp. v. Natural Gas Co.*, 59 F.3d 793, 800 (9th Cir.1995) (“The organized government of a state includes state administrative departments and agencies ... [including] ‘[a] department, commission, board, committee or body of any form operating as an instrumentality of the state government.’” (citing to *Ballentine’s Law Dictionary* 1210 (3d ed.1969)).

<sup>3</sup> See Appellants’ Opening Brief at 24-27.

state and federal funding, the PSRC is the state's agent for the Puget Sound region.<sup>4</sup> Nonetheless, the PSRC maintains that it is neither the state nor an agent for the state, on asserted grounds that it is a "voluntary, self-governing, independent regional entity", that an RTPPO is "separate" from the state transportation planning agency (the state Department of Transportation), that as an interlocal agency it does not inherit all obligations of its constituent members and that subjecting the PSRC to the GHG reduction requirements, by extension, would impose them upon all cities and counties and profit and non-profit corporations.<sup>5</sup> The PSRC is mistaken.

First, the PSRC is not truly a "voluntary, self-governing, independent" entity. The PSRC serves an essential function in the planning, development and direction of funding for transportation programs and projects; it is only voluntary if the Puget Sound region wished to forego state and federal funding for its transportation system, an inconceivable direction for the region to take. The PSRC is only self-governing with respect to its internal operations; its duties, responsibilities and governing structure are

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<sup>4</sup> RCW 47.80.030(1) and .030(2) and 23 USC §§134(j)(5)(i)(I) and 134(k)(4)(A).

<sup>5</sup> PSRC Response at 21-30.

established by statute.<sup>6</sup> The PSRC is an agent, or instrumentality, of the state because it carries out essential state functions,<sup>7</sup> to plan for, and to serve as a conduit for, the funding of transportation infrastructure.

Second, that *regional* transportation planning organizations are separate from the *state* Department of Transportation does not diminish their role. The PSRC, like other RTPOs, serves the vital function of assuring consistency among local, regional and state transportation plans.<sup>8</sup> An RTPO may serve as an agent of the state without being a state agency.<sup>9</sup>

Third, the PSRC may serve as an agent of the state without inheriting all of the duties and responsibilities of its constituent members, as argued by PSRC. Cascade relies on the provisions of

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<sup>6</sup> See RCW 47.80.023 (duties), .026 (governing guidelines and principles), .030 (contents of transportation plan), .070 (state standards for regional plans), .040 (policy direction through a transportation board) and .060 (governance through an executive board).

<sup>7</sup> *Skagit County Public Hospital District No. 1, d/b/a Skagit Valley Medical Center v. State of Washington Department of Revenue*, 158 Wn. App. 426, 438 – 39, 242 P.3d 909, 915 (2010) (“...it is clear that an instrumentality of the government must do more than assist the government. Instead, an instrumentality must accomplish a government function and must be so intimately tied to the government as to be a part, organ or subsidiary branch.”)

<sup>8</sup> See RCW 47.80.023(2)(adoption of regional transportation plan consistent with state plan), .023(3)(certification of city and county transportation plans as consistent with regional plan), .023(5)(development of transportation improvement program for all projects of regional significance), .030(1)(b)(development of regional plan that includes state highways) and .030(3)(requirement that all projects and programs be consistent with the regional plan).

<sup>9</sup> See *Skagit County Public Hospital District No. 1, supra*.

the Interlocal Cooperation Act and the decision in *Harvey v. County of Snohomish*,<sup>10</sup> not for the proposition that the PSRC must undertake each of the duties of its organizational members, but that its structure cannot be used to insulate its members from requirements that otherwise would apply in their capacity as agencies or subdivisions of the state. Presumably, each of the PSRC members is independently discharging its statutory obligations, so PSRC need not separately undertake those charges. But for the planning and development of transportation projects, the principal direction comes through the regional transportation plan, for which no other agency is responsible except the RTPO. Thus, the responsibility for compliance with GHG reduction requirements properly rests with the RTPOs.

And fourth, a finding of RTPO responsibility for meeting GHG reduction requirements would not mean that those requirements apply equally to every city, county and corporation within the state. Specifically for transportation planning, the legislature has charged RTPOs with the duty of including within their plans those projects and programs whose adverse impacts are addressed through regional policies,<sup>11</sup> which certainly would be the case in the reduction of GHG emissions from transportation.

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<sup>10</sup> 124 Wn. App. 806, 813-814, 103 P.3d 836 (2004), reversed on other grounds, 157 Wn.2d 33 (2006).

<sup>11</sup> RCW 47.80.030(1)(b)(iv)(the scope of regional plans includes projects whose impacts are better avoided through regional policies).

For-profit and non-profit corporations are not the state, they are not part of the government and unless specifically designated, do not act as agents of the state.

In sum, the PSRC is an agent of the state and the directives of RCW 70.235.020(1)(a) are binding upon it.

**2. The GHG emission limits apply to the region because the PSRC chose a proportionate approach to emission reductions.**

The PSRC at 30-37 goes on to argue that even if it were an agent for the state the statutorily required GHG reductions still would not apply to *T2040*, on asserted grounds that the statute only limits “overall emissions of greenhouse gases”, that Ecology rejects a sector by sector approach and that *VISION 2040* never committed the PSRC to compliance with the state requirements. PSRC’s arguments here belie the positions previously taken both by PSRC and the Department of Ecology.

**a. *VISION 2040* commits the region to the attainment of the statutory GHG reductions.**

Quite apart from its present narrow reading of RCW 70.235.020(1)(b), the PSRC committed to attain those reductions within its adopted plans.<sup>12</sup> As shown within the Opening Brief at 27-

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<sup>12</sup> Both *VISION 2040* and *T2040* commit the region to compliance with state standards regarding GHG reductions:

Because the consequences of climate change are serious, the central Puget Sound region has committed to take aggressive action to reduce its transportation-related emissions. Throughout the process of creating

29, PSRC's adoption of its multi-county planning policies compels compliance with the statutory GHG reductions. The multi-county planning policies do not exist in a vacuum. The commitment to compliance with GHG reductions is based upon state law: the Growth Management Act requires the adoption of multi-county planning policies for the county region; those policies are adopted within *VISION 2040*; those policies (particularly MPP-En-20) commit the region to compliance with state directives requiring reductions in GHG emissions; and those reductions apply to PSRC's implementing plans, including *T2040*.<sup>13</sup> The PSRC does not dispute this line of reasoning, but simply responds that compliance with RCW 70.235.020(1)(a) is not specifically mentioned within Environmental Action measure En-Action 7 and that it has "unquestionably complied with the state initiatives that apply."<sup>14</sup>

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Transportation 2040, climate change has been identified as one of the key issues needing to be addressed in the plan.

VISION 2040 calls for the region to reduce overall production of harmful elements that contribute to climate change, and commits the region to comply with state directives. ...

*T2040* at 49 (emphasis added).

<sup>13</sup> See Opening Brief at 27-29.

<sup>14</sup> Responsive Brief at 38.

Lack of reference within En-Action 7 in no way relieves PSRC from its commitment to comply with RCW 70.235.020(1)(a). The Environmental Action measures, including En-Action 7, are a list of actions developed at the time of the adoption of *VISION 2040* to implement its policies.<sup>15</sup> Those measures are not the exclusive means for the implementation of *VISION 2040*'s policies. Those policies must also be implemented through PSRC's functional plans, including *T2040*.<sup>16</sup>

In support of its claim to have complied with the "state initiatives and directives" referenced in MPP En-20, the PSRC cites only to participation in the collaborative process convened by WSDOT to assist in the reduction of VMT (vehicle miles travelled). But *VISION 2040* contemplated additional directives, by expressly listing on the same page the GHG emission reduction targets (now requirements) for 2020, 2035 and 2050.<sup>17</sup> The PSRC does not dispute *T2040*'s failure to meet those reductions.

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<sup>15</sup> *VISION 2040* at 43; PSRC 030155.

<sup>16</sup> RCW 47.80.023(2) and .023(4)(regional transportation plan must be consistent with county-wide policies) and *VISION 2040* at 29 (the adopted policies provide direction for functional plans, including *T2040*).

<sup>17</sup> *VISION 2040*'s discussion and policies relating to climate change are set forth at Appendix A to this brief.

**b. Ecology also supports a sector-specific approach.**

The PSRC at 35-46 asserts that Ecology supports its rejection of a sector-by-sector approach and that Ecology's construction is deserving of deference. But on closer examination, Ecology has more consistently supported the position that RCW 70.235.020(1)(a) requires the PSRC to adopt a plan that would bring the regional transportation sector into compliance with the statutory GHG reductions.

In its January 2008 comments on the scope of the EIS to be prepared for *T2040* (then referred to as the *Destination 2030 Update*), Ecology declared that "it is critical that the *Update* be carefully crafted to ensure its consistency with the[] ghg emission reduction goals."<sup>18</sup> Ecology further identified proportional reductions in GHG emissions as among the "key principles" to be addressed within the environmental analysis for the *Update*:

Most importantly, Ecology has identified the following key principles that we believe must guide the development of this *Update* and drive the associated environmental analysis:

The *Update* will ensure that the region's proportional share of ghg emissions from the transportation sector will be reduced, consistent with the state's ghg reduction goals;

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<sup>18</sup> DOE Scoping comment, January 30, 2008, PSRC 026887, -888. (The scoping comments referred to the GHG reduction goals within the prior statute, RCW 80.80.020, which RCW 70.235.020(1)(a) later re-enacted as requirements.)

The *Update* will reduce total vehicle miles traveled in the region, consistent with the state's ghg emission reduction goals; and

The *Update*, as modified and consistent with the two principles set forth above, will inform and direct actions and measures identified in *VISION 2040*, such as the Climate Change Action Plan, to ensure consistency with the state's ghg emission reduction goals.

These three principles or "criteria" would greatly support the development of low-impact alternatives.<sup>19</sup>

In its July 2009 comments on the Draft EIS, Ecology again urged PSRC to develop an alternative that would make proportional reductions in GHG emissions:

In choosing a preferred alternative from the five DEIS options, Ecology believes it is critically important for PSRC to develop a plan that that [sic] ensures GHG emissions consistent with the region's proportional share of the transportation sector's GHG emissions reductions.<sup>20</sup>

The PSRC at 32 contends that Ecology took a different approach in its reports to the legislature. But that is not entirely so. At the time of its 2008 report to the legislature, Ecology supported an economy-wide approach to emissions reductions, anticipating the eventual approval of a cap and trade program.<sup>21</sup> However, with

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<sup>19</sup> PSRC 026889 (emphasis supplied).

<sup>20</sup> DOE Comment on DEIS, July 31, 2009, S-002-002, PSRC 002534 (emphasis supplied).

<sup>21</sup> RCW 70.235.030(1)(b), directing the Departments of Ecology and Commerce to prepare a market-based system to reduce GHG emissions consistent with the requirements of .020(1).

the legislature's failure to adopt such a program, Ecology realized by its 2010 report the need for a sector-specific approach:

But after debate at the state and federal level, lawmakers have not implemented the centerpiece of the 2008 Comprehensive Plan: an economy-wide cap-and-trade program. Without an economy-wide policy such as this, we must work sector-by-sector to develop a portfolio of policies that work together to reduce emissions.<sup>22</sup>

But that was not Ecology's last word on the subject.

A year later, Ecology continued to adhere to a sector-specific approach to GHG reductions. On June 3, 2011, Ecology issued a guidance document titled, *Guidance for Ecology Including Greenhouse Gas Emissions in SEPA Reviews* ("SEPA Guidance") a copy of which is published on Ecology's website and set forth at CP 769. The *SEPA Guidance* determines that attainment of the 2020 GHG reduction levels set by RCW 70.235.020 requires reductions of current GHG emissions by 11%. For purposes of determining whether a proposed action creates potential significant adverse impacts to climate, the *SEPA Guidance* includes as a threshold for environmental significance GHG reductions of 11% below business as usual:

A proposal will be presumed to be not significant for greenhouse gas emissions and thus no further mitigation for greenhouse gas emissions will be necessary if it is:

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<sup>22</sup> 2010 Comprehensive GHG Reduction Plan p. 7, PSRC-S00029466 (emphasis supplied).

expected to result in emissions of 25,000 metric tons or more a year and has incorporated mitigation measures to reduce its emissions by approximately 11% below what its emissions would have been without those mitigation measures.<sup>23</sup>

Conversely, a proposal with GHG emissions of more than 25 thousand metric tons per year that did not reduce its emissions by 11% would produce significant adverse environmental impacts. Thus, for purposes of establishing a threshold of environmental significance, Ecology has adopted a proportional impact approach based upon whether a particular proposal exceeds the 2020 reductions.

In contrast to Ecology's support of sector-specific reductions and proportional reductions within *T2040*, the PSRC offers the litigation declaration of Janice Adair, an author of both the *2010 Comprehensive GHG Reduction Plan* and the *SEPA Guidance*. Her opinion is not entitled to any deference in the construction of RCW 70.235.020(1)(a) because it is not consistent with Ecology's direction to PSRC and there is no indication that Ecology has adopted it as a matter of agency policy.<sup>24</sup>

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<sup>23</sup> CP 775 (Emphasis in original).

<sup>24</sup> See *Cowiche Canyon Conservancy v. Bosley*, 118 Wn. 2d 801, 815, 828 P.2d 549 (1992):

If an agency is asserting that its interpretation of an ambiguous statute is entitled to great weight it is incumbent on that agency to show that it has adopted and applied such interpretation as a matter of agency policy. ... [An

In sum, Ecology's more specific directions to PSRC have supported proportional, sector-by-sector reductions in GHG emissions.

**B. T2040 has been adopted in violation of SEPA.**

Within its Opening Brief at 41-50, Cascade demonstrates that the EIS failed to fully disclose the extent to which implementation of *T2040* would exceed GHG emission reductions both set by statute and determined necessary to achieve climate stabilization and further, that the EIS failed to consider alternatives and mitigations that would achieve those reductions. The PSRC at 39-59 responds that its failure to comply with the GHG reductions does not itself amount to an environmental impact, that it disclosed the extent of *T2040*'s GHG emissions, that it considered reasonable alternatives and mitigations and that additional measures to meet the statutory limits were infeasible and need not be considered. Cascade responds to each of PSRC's arguments below.

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such interpretation as a matter of agency policy. ... [An agency may not] bootstrap a legal argument into the place of agency interpretation.

The superior court admitted the Adair declaration over Cascade's objection, from which Cascade did not appeal. However, whether the declaration is entitled to deference as an agency interpretation still remains a matter for the court to determine as a matter of statutory construction. Further, resort to an agency interpretation is only appropriate where a statute is ambiguous. *Cowiche Canyon Conservancy* at 813-14. RCW 70.235.020 is not ambiguous.

**1. T2040's failure to meet GHG reduction requirements creates adverse environmental impacts.**

The PSRC at 39 incorrectly asserts that Cascade's challenge to the adequacy of the EIS turns on the "flawed premise" that PSRC is required to meet the statutory GHG reductions.<sup>25</sup> While Cascade maintains that *T2040* was required to meet the statutorily required GHG reductions, its challenge to the EIS is not solely based upon that contention. Apart from the issue of whether *T2040* is required to meet the statutory GHG emission limits for the region, its exceedances of those limits create environmental impacts in their own right.

The impact to the environment is the undeniable exacerbation of climate change resulting from additional levels of GHG emissions through the implementation of *T2040*'s many projects. The statutory reduction requirements serve as a measure for GHG reductions necessary to stabilize climate change. They do not stand in isolation as abstract targets. Rather, they are based on a large body of work that supports such emission reductions in order to stabilize the climate at a level that would allow the continued existence of human civilization at a sustainable level.<sup>26</sup>

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<sup>25</sup> See also, Response Brief at 41, at which PSRC similarly contends that "Cascade's sole SEPA argument is based on a failure to disclose on alleged statutory violation ..."

<sup>26</sup> As stated by IPCC:

Even in the absence of Chapter 70.235 RCW, emissions of the magnitude resulting from implementation of *T2040* would be significant because they far exceed those limits that have been independently determined to be necessary to achieve climate stabilization.

At the same time that it denies being subject to the statutory GHG limits, the PSRC at 42 wrongly claims that it fully addressed those limits, when clearly it did not. *T2040* at 20 claims it

sets the region on course to significantly reduce greenhouse gas emissions consistent with state goals through a flexible and balanced approach of land use, pricing, choices, and technology.<sup>27</sup>

But this representation is incorrect. As Cascade demonstrates within its Opening Brief at 36-37, the implementation of *T2040* would result in GHG emissions of roughly double the limits set by

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Under regime designs for low and medium concentration stabilization levels (i.e. 450 and 550 ppm CO<sub>2</sub>-eq ...) GHG emissions from developed countries would need to be reduced substantially during this century. For low and medium stabilization levels, developed countries as a group would need to reduce their emissions to below 1990 levels in 2020 (on the order of -10% to 40% below 1990 levels for most of the considered regimes) and to still lower levels by 2050 (40% to 95% below 1990 levels), even if developing countries make substantial reductions. ...

Chapter 13, Policies, Instruments and Co-operative Arrangements pp. 775 - 76 in Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. PSRC 00020305-06.

<sup>27</sup> PSRC-00003320.

statute. T2040 would put the region off the course necessary to meet the GHG emission limits.

With regard to its use of the wrong baseline, PSRC's explanation for using 2006 data is really beside the point. While PSRC may profess to prefer more recent data, both the statutory GHG reductions and the reductions urged by the IPCC are nonetheless measured from a 1990 baseline. PSRC's decision to use 2006 data certainly did not prevent its disclosure of the discrepancy between the 1990 and 2006 baselines. In fact, MOVES, the principal program for modeling motor vehicle emissions used by the PSRC, allows for the backcasting to 1990. According to the MOVES User Guide "[a] 'default' input database, which covers 3,222 counties of the United States and which supports model runs for calendar years 1990, and 1999 – 2050 is included with the model."<sup>28</sup> So MOVES could have been used to generate a 1990 estimate for GHG emissions for on-road vehicles in the four-county central Puget Sound region. In any event, since PSRC chose to compare its claimed GHG reductions to those required by RCW 70.235.020(1)(a), the significant, 20% difference in baselines should have been disclosed.

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<sup>28</sup> U.S. EPA MOVES-HVI Demonstration Version User Guide p. 2, PSRC-00018098.

## **2. The EIS fails to consider alternatives to meet T2040's objectives with lesser impacts.**

T2040's objectives include the adoption of a strategy for reducing transportation's contribution to climate change.<sup>29</sup> In response to Cascade's argument that the EIS failed to consider an alternative capable of attaining that objective at a lower environmental cost,<sup>30</sup> the PSRC at 44-46 responds that it considered a wide range of alternatives, that there exist no alternatives capable of meeting the required GHG reductions and that Cascade offered no suggestion as to how attainment of those requirements could be achieved. PSRC's defenses are unavailing.

First, while the EIS may have considered a number of alternatives (seven in all), it considered none that would achieve the stated objective of meeting state directives for the reduction of GHG emissions. PSRC cannot dispute this point, since none of the considered alternatives come anywhere near meeting the GHG reductions required by 2020 and 2035.

Second, the PSRC fails to substantiate its claim of impossibility, that there existed "no feasible way for PSRC to craft an alternative capable of meeting ... [the] greenhouse gas emissions requirements in RCW 70.235.020[,]"<sup>31</sup> The PSRC

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<sup>29</sup> T2040 at 11 and VISION 2040, MPP-En-20.

<sup>30</sup> WAC 197-11-440(5)(b).

<sup>31</sup> Response at 46.

cannot now lawfully defend its failure to consider a GHG reduction compliant alternative on alleged grounds of infeasibility. PSRC's current position represents a reversal of its prior representations, that it was "on course to significantly reduce greenhouse gas emissions consistent with state goals..."<sup>32</sup> Just because development of a GHG compliant alternative might be difficult, an agency's duty to develop such an alternative is not excused.<sup>33</sup> In general, an agency bears a "heavy burden" of proving impossibility as a defense to non-compliance with statutory requirements.<sup>34</sup> The PSRC has not met that burden.

Nowhere does the EIS show that it would be infeasible for the PSRC to develop an alternative of meeting the GHG reduction requirements. As noted above and within Cascade's Opening Brief at 28-29, the *T2040* and the EIS claimed to the contrary, that it was "on course" to meet the state's GHG reduction goals. The *Moving Cooler* and *Leading the Way* publications now relied upon by PSRC

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<sup>32</sup> *T2040* at 20.

<sup>33</sup> *Byers v. Board of Clallam County Com'rs*, 84 Wn.2d 796, 802, 529 P.2d 823, 828 (1974)("The requirements of SEPA may not be thwarted merely because compliance therewith is difficult.").

<sup>34</sup> *Communities for a Better Environment v. U.S. E.P.A.*, \_\_\_ F. Supp. \_\_\_, 2008 WL 1994898, 2 (N.D.Cal.,2008)(finding that the EPA failed to carry its heavy burden to justify its failure to meet the deadline for adoption of NAAQS for CO), citing to *Maine Ass'n of Handicapped Persons of Portland, Maine v. Dole*, 623 F.Supp. 920, 926 (D.Me.1985); and *Sierra Club v. Gorsuch*, 551 F.Supp. 785, 787 (N.D.Cal.1982) (finding agency's burden in demonstrating impossibility was "especially heavy").

were not prepared to analyze the GHG emissions resulting from any of T2040's alternatives; instead they speak of GHG reductions more generally applicable. Conditions within the Puget Sound region differ, as the area is far more urban and far better served by transit than either the state or the nation as a whole.

Further, projections prepared by PSRC in April 2008 showed that by the year 2030 GHG reductions of up to 47% of 1990 emission levels could be attained through a combination of increased fuel efficiency, reduced carbon content and a 30% reduction in per capita vehicle miles traveled (VMT):<sup>35</sup>

### Transportation: Vehicles, Fuels and VMT

#### Alternative VMT per capita reductions – light duty vehicles only

Case	2030 VMT vs. 2007	2007 - 2030 VMT Growth	2030 GHG vs. 1990
a) Current (2007)	NA	NA	23%
b) EIA Forecast (AEO 2008)	152%	1.8%	22%
<b>VMT SCENARIOS*</b>			
c) 50mpg CAFE, -20% Fuel GHG	154%	1.9%	-4%
d) Cut VMT growth in half**	126%	1.0%	-21%
e) Flat VMT per capita	121%	0.8%	-25%
f) -10% VMT per capita	109%	0.4%	-32%
g) -17% VMT per capita	100%	0.0%	-38%
h) -30% VMT per capita	85%	-0.7%	-47%
<b>Target:</b>			<b>-20% to -47%</b>

\*Note: All scenarios assume 50 mpg CAFE in 2030 and 20% fuel GHG

\*\* This is AASHTO's sustainability goal.



<sup>35</sup> This table is from the document, *Transportation 2040: Climate Change and Vehicle Miles Traveled*, contained in the decision record at PSRC-006654 and is set forth at Appendix B to this reply. The table appears at PSRC 006675.

A 30% decrease in VMT may require a transformation in the way we move people and goods, but it is fully consistent with the state's VMT reduction goals which specify a 30% reduction by 2035.<sup>36</sup> For whatever reason, PSRC abandoned efforts to develop an alternative that would be consistent with these projections.

Third, the burden of developing a GHG reduction compliant alternative squarely rests with PSRC, not plaintiffs. The SEPA rules clearly provide that a lead agency's responses to comments on a DEIS shall include the modification of alternatives and the development of alternatives not previously considered.<sup>37</sup> In fact, the development of a GHG reduction compliant alternative specifically was requested by three agencies with jurisdiction, the Environmental Protection Agency, the Department of Ecology and the Puget Sound Clean Air Agency. In its comment on the EIS, the EPA recommended:

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<sup>36</sup>RCW 47.01.440.

<sup>37</sup> See WAC 197-11-560(1):

(1) The lead agency shall prepare a final environmental impact statement ... . The lead agency shall consider comments on the proposal and shall respond by one or more of the means listed below, including its response in the final statement. Possible responses are to:

(a) Modify alternatives including the proposed action.

(b) Develop and evaluate alternatives not previously given detailed consideration by the agency.

\* \* \*

(Emphasis added).

We recommend developing a transportation plan based upon a preferred alternative that is fully responsive to the needs described above as well as to climate change and the State reduction goals for greenhouse gases (GHG).<sup>38</sup>

The Department of Ecology similarly requested:

In choosing a preferred alternative from the five DEIS options, Ecology believes it is critically important for PSRC to develop a plan that that [sic] ensures GHG emissions consistent with the region's proportional share of the transportation sectors GHG emissions reductions.<sup>39</sup>

And the Puget Sound Clean Air Agency took a similar position:

In conclusion, we believe PSRC must develop an aggressive transportation plan for the region to meet current and anticipated state and federal air and climate imperatives.<sup>40</sup>

In response to each of these comments PSRC refers to its Four Part Greenhouse Gas Strategy but not to the development of an alternative responsive to their requests. By refusing to develop and analyze a GHG reduction compliant alternative PSRC flouted its obligations under SEPA.

### **3. The EIS's mitigations fail to fully address GHG impacts.**

An EIS must "discuss reasonable mitigation measures that would significantly mitigate [the] impacts" of a proposal.<sup>41</sup> The

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<sup>38</sup> PSRC 002523.

<sup>39</sup> PSRC-002534.

<sup>40</sup> PSRC 002588.

<sup>41</sup> WAC 197-11-440(6)(a).

PSRC at 47-48 responds that mitigation need only address *T2040*'s impacts on the environment, not its violations of Chapter 70.235 RCW, and that SEPA does not require that all impacts be mitigated. The PSRC misreads its obligations under SEPA.

First, regardless of whether the GHG reduction requirements are directly enforceable against the PSRC, *T2040*'s inconsistency with those emission limits is an environmental impact that requires mitigation. As argued above, those exceedances create environmental impacts in their own right, since they exacerbate impacts already caused by increased GHG emissions.<sup>42</sup> But a proposal's inconsistencies with state standards are themselves environmental impacts requiring review within an EIS.<sup>43</sup> Therefore,

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<sup>42</sup> Ecology's 2010 Comprehensive GHG Reduction Plan at 5 identifies ocean acidification to be an effect of increased CO<sub>2</sub> emissions that may already be occurring in Washington

Human-released CO<sub>2</sub> is also being absorbed by the oceans. This causes changes to ocean chemistry that lead to increased acidity in the oceans. Washington's oceans are particularly susceptible to acidification, which may already be affecting Hood Canal, Willapa Bay, and Grays Harbor. More acidic ocean water may harm marine organisms, mainly those that form shells. Some of these threatened marine creatures are an important component of the food web, supporting larger species such as herring, salmon, and whales. Ocean acidification also poses a threat to Washington's commercial shellfish industry.

PSRC-S00029464.

<sup>43</sup> WAC 197-11-330(6)(d)(iii)(a proposal's significant impacts include conflicts with local, state or federal laws for protection of the environment).

*T2040*'s lack of consistency with mandated reductions in GHG emissions amounts to an adverse impact requiring mitigation under SEPA.

Second, PSRC's reliance upon RCW 43.21C.030(1) and WAC 197-11-440(6)(c)(v) for the proposition that it is free to not further mitigate *T2040*'s resultant GHG emissions is misplaced.<sup>44</sup> Washington courts have construed SEPA to require mitigation of significant impacts.<sup>45</sup>

And third, even if SEPA were construed to allow PSRC to refuse to mitigate GHG emissions that would far exceed state-adopted and internationally-recognized standards, the EIS still was obliged to at least disclose that those exceedances would go unmitigated.<sup>46</sup> But the FEIS asserts that no unmitigated significant adverse impacts to air quality will result:

If all mitigation measures required as part of subsequent project-level actions are implemented, no

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<sup>44</sup> PSRC Response at 48.

<sup>45</sup> *Save Our Rural Environment v. Snohomish County*, 99 Wn.2d 363, 372-73, 662 P.2d 816 (1983), construing *Cathcart-Maltby-Clearview Community Council v. Snohomish County*, 96 Wn.2d 201, 209, 634 P.2d 853 (1981) to require that a "local governmental body must consider and act to mitigate adverse impacts." See also, *Save a Valuable Environment (SAVE) v. City of Bothell*, 89 Wn.2d 862, 871-72, 576 P.2d 401 (1978)("The main concern evidenced [by SEPA] is to "mitigate impacts which are adverse to the environment or the economy ...").

<sup>46</sup> RCW 43.21C.030(2)(c)(v)(EIS must disclose "any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented;") and WAC 197-11-440(6)(c)(v)("...the EIS shall ... [s]ummarize significant adverse impacts that cannot or will not be mitigated."

significant unavoidable adverse air quality impacts are expected under any of the alternatives.<sup>47</sup>

For a proposal that would result in approximately twice the level of GHG emissions as necessary to achieve climate stabilization, this statement is simply untrue.

#### **4. *T2040* fails to conform to *VISION 2040*.**

An EIS must explain how the proposed action would be “consistent and inconsistent” with adopted plans.<sup>48</sup> PSRC’s land use plan, *VISION 2040* in Policy MPP-En-20, commits the PSRC to conformance with the state’s directives regarding GHG reductions. The EIS states *T2040* to be consistent with that policy when it is not.<sup>49</sup> The PSRC at 49 claims there to be no inconsistency to disclose. But the CO<sub>2</sub> emissions listed on Exhibit 6-8 of *T2040* clearly show that implementation of the plan would result in approximately double the emissions which *VISION 2040*

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<sup>47</sup> FEIS at 6-29.

<sup>48</sup> WAC 197-11-440(6)(d)(i).

<sup>49</sup> T2040 EIS at 6-12 states:

In the absence of such requirements [federal or state legislation setting GHG and VMT reductions pertinent to its transportation and growth management activities] PSRC has taken an active stance to address the state’s climate change goals in the *VISION 2040* policies and in the development of *Transportation 2040*.

(Emphasis supplied.).

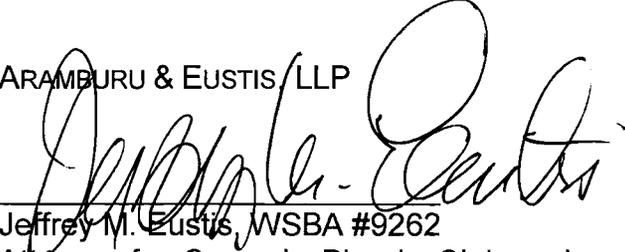
represented it would achieve.<sup>50</sup> The EIS fails to disclose that inconsistency. The EIS is legally inadequate because it misleads.

### III. CONCLUSION

The Cascade Bicycle Club, Sierra Club and Futurewise ask the court to find *T2040* in violation of the GHG reduction statute and of SEPA and to remedy these violations through a remand to the PSRC for preparation of an EIS that fully addresses the plan's impacts on climate and the adoption of a plan fully compliant with RCW 70.235.020(1)(a).

RESPECTFULLY SUBMITTED this 23 day of January 2012.

ARAMBURU & EUSTIS / LLP



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Attorney for Cascade Bicycle Club and  
Sierra Club

FUTUREWISE



Tim Trohimovich, WSBA 22367

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<sup>50</sup> Opening Brief at 44-45.

# Appendix A



# VISION 2040

people



prosperity



planet



Puget Sound Regional Council  
PSRC December 2009

Appendix A

PSRC-S00030099



## PART III: Multicounty Planning Policies

*The multicounty planning policies provide an integrated framework for addressing land use, economic development, transportation, other infrastructure, and environmental planning. These policies play three key roles: (1) give direction for implementing the Regional Growth Strategy, (2) create a common framework for planning at various levels within the four-county region, including countywide planning, local plans, transit agency plans, and others, and (3) provide the policy structure for the Regional Council's functional plans (the Metropolitan Transportation Plan and the Regional Economic Strategy).*

### Overview

#### **Implementing the Regional Growth Strategy.**

The multicounty planning policies call for concentrating growth within the region's designated urban growth area and limiting development in resource and rural areas. The policies address land use, including urban, rural, and resource lands, urban growth area designations, target-setting for population and employment, and focusing development in centers. They also address the important related issues of providing needed infrastructure and services to manage growth, including transportation facilities. Finally, they recognize the link between development, mobility, the environment, and the economy, and have been designed to provide an integrated approach to sustainability, development, economic prosperity, and the provision of services.

**A Common Framework.** Under the Growth Management Act, multicounty planning policies provide a common regionwide framework for countywide and local planning in the central Puget Sound region. The unified structure established by the multicounty policies has both practical and substantive effects on city and county comprehensive plans. The multicounty policies provide a mechanism for achieving consistency among cities and counties on regional planning matters. They also guide a number of regional processes, including the Regional Council's policy and plan review process, the evaluation of transportation projects seeking regionally managed funding, and the development

**The Growth Management Act and Multicounty Planning Policies**

The Growth Management Act states that "multicounty planning policies shall be adopted by two or more counties, each with a population of 450,000 or more, with contiguous urban areas and may be adopted by other counties." (RCW 36.70A.210 (7))

**A Framework for Regional Planning in Central Puget Sound**



of criteria for Regional Council programs and projects. (These and other processes are described in fuller detail in Part IV, the Implementation section.)

Countywide planning policies complement multicounty policies and provide a more specific level of detail to guide county and local comprehensive planning in each of the four counties. Both multicounty and countywide planning policies address selected issues in a consistent manner, while leaving other issues to local discretion. Much of the implementation of VISION 2040 occurs through local planning and actions.

Multicounty planning policies also guide various regional planning programs and serve as the framework for various growth management, economic development, and transportation projects carried out by the Puget Sound Regional Council and others. Both the Metropolitan Transportation Plan (*Destination 2030*) and the *Regional Economic Strategy* are guided by the multicounty planning policies in VISION 2040.

**VISION 2040 POLICY APPROACH**

VISION 2040's focus on people, prosperity and the planet challenges the region to develop healthy and safe communities for all people, to apply an environmental ethic in business and economic practices, to take steps to conserve resources, and to enhance natural and built environments. The policies and provisions in VISION 2040 have been developed with attention to social equity and environmental justice.

**VISION 2040 Policy Structure**



To achieve this end, the multicounty planning policies are grouped in six overall categories: (1) environment, (2) development patterns, (3) housing, (4) economy, (5) transportation, and (6) public services. (Note: A small set of general policies is also included following this overview.)

The policies reflect the commitment in the vision statement "to protect the environment, to create vibrant, livable, and healthy communities, to offer economic opportunities for all, to provide for safe and efficient mobility, and to use the region's resources wisely and efficiently."

**GOALS — POLICIES — ACTIONS — MEASURES**

The multicounty planning policies are presented in a four-part framework with: (1) goals, (2) policies, (3) actions, and (4) measures.

**Goals.** Goals speak to the desired outcomes for each of the topics covered in VISION 2040. They set the tone for the integrated approach and common framework

for the regional policies. Each policy section of VISION 2040 begins with an overarching goal that provides the context for the policies and provisions that follow. Additional goals are then provided for specific policy topics in each section.

**Policies.** The multicounty planning policies are designed to be broad. They provide overall guidance and direction for planning processes and decision-making at both regional and local levels. Given the strong integration across the various policy sections in VISION 2040, the full body of multicounty policies is to be considered in decision-making for various programs, projects, and planning processes. The multicounty policies also serve as planning guidelines and principles as required by state law to provide a common framework for regional and local planning, particularly in the area of transportation planning and its relationship to land use.

**Actions.** VISION 2040 includes actions that relate to implementing each policy section. These actions lay out responsibilities and tasks for implementation. The actions include a wide range of items — some directed at the Puget Sound Regional Council, others geared to member jurisdictions. Recognizing the different capacity of various municipalities to work on plan-related provisions, the Regional Council and/or the counties will make efforts to assist smaller cities and towns in addressing these actions.

The actions are organized according to level of responsibility for implementation. The regional level includes actions for which the Regional Council would primarily be responsible. The county level includes actions identified for each county or its countywide growth management planning body. Finally, local-level actions are intended for implementation by individual counties and cities. Each action includes a brief statement describing the action in general terms, followed by results or products related to the action. Information is also provided on the expected timeframe for carrying out the action. Short-term generally refers to a one- to three-year time period. Mid-term refers to a three- to five-year time period. References are included to specific policies or sets of policies to which each action relates.

**Measures.** Finally, measures for assessing how the region is meeting the goals and provisions of the policies are included in the Implementation section (Part IV). The purpose of these measures is to track whether actions are occurring and whether the region is achieving desired results. This information will assist policymakers

as they assess policies and actions over time.

Regional monitoring is based upon two major components: implementation monitoring and performance monitoring. Implementation monitoring attempts to answer the question, “Are we doing what we said we would do?” Performance monitoring addresses, “Are we achieving the desired results?” Answering these questions provides the guiding framework for the Regional Council’s monitoring program.

The measures selected for this program are not intended to be entirely comprehensive or to provide all of the answers. Rather, they have been selected to provide the region’s decision-makers a broad view of the state of the region, with a high-level perspective about whether key implementation actions are being accomplished, and if the region is seeing desired results.

#### **Analysis of Fiscal Impact**

*The Growth Management Act requires that countywide and multicounty planning policies address an analysis of fiscal impact. The Central Puget Sound Hearings Board concluded in City of Snoqualmie versus King County (1993), that “the purpose of the fiscal impact analysis is to realistically assess the fiscal costs and constraints of implementing countywide planning policies and thereby to contribute to the design of an effective strategy to overcome those constraints.” The Hearings Board stated that “this task was imposed on cities and counties because they are the units of government directly responsible for creating and implementing the countywide planning policies, as well as the parties most directly affected fiscally by implementation of the countywide planning policies.” Within the central Puget Sound region, analysis of fiscal impact is deferred to the respective countywide planning policies for King, Kitsap, Pierce, and Snohomish counties.*

#### **Future Amendments to VISION 2040**

*Amendments to multicounty planning policies require formal action by the Regional Council’s General Assembly. However, revisions, changes, or additions to actions or measures may be made by the Executive Board. Substantive amendments to VISION 2040 will be made — as needed — in advance of the regular schedule for major updates to local comprehensive plans, as required by the Growth Management Act.*

### Growth Management and Air Quality

The Puget Sound Clean Air Agency's emphasis on growth management planning as a means of improving air quality presents an opportunity to reinforce VISION 2040. Alternatives to single-occupancy vehicle travel, including carpooling, biking, telecommuting, and a wider range of transit options, are important ways to improve air quality.

In 2007, the Puget Sound Clean Air Agency adopted six policies for local jurisdictions to use in their growth management planning efforts.

- Implement air- and climate-friendly design, construction and operation
- Promote cleaner travel choices
- Reduce exposure to air pollution
- Install clean fireplaces and stoves in new home construction
- Support environmental justice
- Use the State Environmental Policy Act as a tool and safety net

— including indoor and outdoor burning, construction dust, and lawn care — affect air quality, motor vehicles are by far the largest source of air pollution in the region.

Development that accommodates walking, biking, and transit use, such as in centers and compact, mixed-use communities, can have air quality and climate benefits. Well-designed communities with good access and mobility provide alternatives to driving alone, which in turn reduce emissions.

VISION 2040 calls for improving air quality and reducing airborne pollutants and emissions.

### AIR QUALITY GOAL AND POLICIES

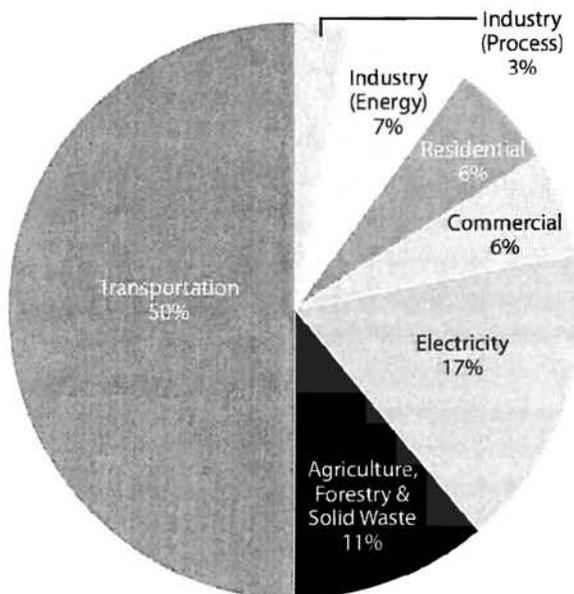
**Goal:** The overall quality of the region's air will be better than it is today.

**MPP-En-17:** Maintain or do better than existing standards for carbon monoxide, ozone, and particulates.

**MPP-En-18:** Reduce levels for air toxics, fine particulates, and greenhouse gases.

**MPP-En-19:** Continue efforts to reduce pollutants from transportation activities, including through the use of cleaner fuels and vehicles and increasing alternatives to driving alone, as well as design and land use.

### Sources of Greenhouse Gas Emissions in the Central Puget Sound Region



Source: Puget Sound Clean Air Agency, 2000

### Climate Change

Climate change has the potential to affect almost every other issue identified in VISION 2040. Though a global issue, local governments can play an important role in reducing its impacts. According to the Puget Sound Clean Air Agency, for every gallon of gasoline used, automobiles release roughly 20 pounds of carbon dioxide, one of the primary greenhouse gases contributing to climate change. In the central Puget Sound region, cars and trucks contribute more greenhouse gas emissions than any other source. Burning conventional diesel and gasoline in our motor vehicles and equipment is responsible for the bulk of our greenhouse gases and other air toxics. Choosing cleaner alternatives and retrofitting older machinery to be less-polluting are affordable ways to protect our air.

VISION 2040 calls for reducing our contribution to greenhouse gas emissions and preparing for the anticipated impacts of climate change. Agencies at all levels of government should seek ways to both mitigate and adapt

to climate change. This includes efforts to maximize energy efficiency and increase renewable energy, reduce greenhouse gas emissions of new vehicles, reduce motor vehicle miles traveled, improve the convenience and safety of nonpolluting transportation modes such as bicycling and walking, protect the natural landscape and vegetation, and increase recycling and reduce waste.

#### **CLIMATE CHANGE GOAL AND POLICIES**

**Goal:** The region will reduce its overall production of harmful elements that contribute to climate change.

**MPP-En-20:** Address the central Puget Sound region's contribution to climate change by, at a minimum, committing to comply with state initiatives and directives regarding climate change and the reduction of greenhouse gases. Jurisdictions and agencies should work to include an analysis of climate change impacts when conducting an environmental review process under the State Environmental Policy Act.

**MPP-En-21:** Reduce the rate of energy use per capita, both in building use and in transportation activities.

**MPP-En-22:** Pursue the development of energy management technology as part of meeting the region's energy needs.

**MPP-En-23:** Reduce greenhouse gases by expanding the use of conservation and alternative energy sources and by reducing vehicle miles traveled by increasing alternatives to driving alone.

**MPP-En-24:** Take positive actions to reduce carbons, such as increasing the number of trees in urban portions of the region.

**MPP-En-25:** Anticipate and address the impacts of climate change on regional water sources.

#### **Initiatives in Washington to Address Climate Change**

*In 2007 both the Governor and the Legislature took actions to address climate change. While using different benchmark reference points, the two initiatives are compatible in their targets.*

#### **Washington Climate Change Challenge**

*In February 2007, the Governor established greenhouse gas emission targets, calling for the state to reduce emissions to 1990 levels by 2020, 25 percent below 1990 levels by 2035, and 50 percent below 1990 levels by 2050 — a 70 percent reduction below normal projections. The order further directs state agencies to move forward with the Challenge, a process designed to consider the full range of policy options that may be enacted to achieve the state's targets. The Challenge also calls for the full implementation of existing Washington laws for emission standards, building efficiency standards, and biofuel and renewable energy initiatives.*

#### **Legislative Action**

*The Washington Legislature has established specific greenhouse gas emission targets to address climate change. By January 1, 2020, the annual statewide greenhouse gas emission levels must be no greater than the emission levels that occurred in 1990. By January 1, 2035, the annual statewide greenhouse gas emission levels must be 25 percent below the levels in 1990. By 2050 the levels must be 50 percent below 1990 levels. (RCW 80.80.020)*

*This legislation also affirms the Governor's targets for reducing greenhouse gases by reducing energy imports and increasing energy jobs. It also sets emissions performance standards for major new power plants or power purchases. The law authorizes additional financial incentives for electric utilities to invest in energy conservation. Finally, it authorizes electric utilities and counties to continue to invest in reducing their contributions to climate change.*

#### **Cities and Counties**

*Individual cities and counties in the region have already taken steps to address climate change by establishing action plans, including both King County and Seattle. Seattle, Bremerton, Everett, Tacoma, and more than a dozen other cities across the region have signed on to the U.S. Mayors Climate Protection Agreement*

### **VISION 2040 and Climate Change**

Climate change is an issue that affects all facets of VISION 2040 — the natural environment, the built environment, the economy, transportation, and other infrastructure and services. With this recognition, VISION 2040 provides guidance in all policy sections of the plan for reducing air pollution and protecting the climate.

While the entire set of multicounty planning policies has been crafted to be integrated and mutually supportive, the following list identifies those policies that address climate change, the reduction of greenhouse gas emissions, or related environmental impacts.

En-3	En-22	T-6
En-16	En-23	T-22
En-17	En-24	T-23
En-18	En-25	T-25
En-19	DP-45	PS-1
En-20	Ec-15	PS-12
En-21	T-5	PS-13

In addition, VISION 2040 includes an implementation action calling for the development of a regional climate change action plan (see En-Action-7). Other actions that contribute to protecting the climate and reducing emissions include:

- En-Action-6
- DP-Action-9
- T-Action-14

Finally, VISION 2040 includes monitoring provisions in the Implementation section that call for measuring emissions of greenhouse gases and tracking local jurisdictions' programs and efforts to address climate change (En-Measure-5, En-Measure-6).



## VISION 2040 ENVIRONMENTAL ACTIONS

The following VISION 2040 actions have been developed to help implement the environment policies. Detailed information on specific measures that will be used to monitor implementation and performance is contained in *Part IV: Implementation*.

### REGIONAL ENVIRONMENTAL ACTIONS

#### Regional Environmental Planning: En-Action-1

The Puget Sound Regional Council, in particular the Growth Management Policy Board, will determine its ongoing role in regional environmental planning and coordination, including sustainable development and addressing the impacts of climate change.

- Short-term / MPP-En-1, 2
- Results and Products: *report and recommendations to Growth Management Policy Board and Executive Board, best practices toolkit or other resources to provide guidance for addressing environmental provisions in VISION 2040*

#### Regional Green Space Strategy: En-Action-2

The Puget Sound Regional Council, its member jurisdictions, open space agencies, and interest groups shall develop a regional green space strategy. (Address regional trail development in such a strategy.)

- Mid-term / MPP-En-8, 9
- Results and Products: *Regional Green Space Strategy*

#### Critical Areas Coordination: En-Action-3

The Puget Sound Regional Council will review and report on efforts between counties and cities to coordinate the designation and protection of critical areas.

- Mid-term / MPP-En-2, 6
- Results and Products: *report and recommendations to Growth Management Policy Board and countywide coordination groups*

#### Water Quality: En-Action-4

The Puget Sound Regional Council will determine its role in addressing regional water quality issues.

- Mid-term / MPP-En-13 through 16, MPP-PS-17 through 20
- Results and Products: *report and recommendations to Growth Management Policy Board and Executive Board*
- See also action for counties and cities (below), as well as action on water quantity in the Public Services section

#### Estuary Restoration: En-Action-5

The Puget Sound Regional Council will work with its member jurisdictions and other relevant agencies to develop a best practices toolkit for estuary restoration and redevelopment along urban waterways.

- Mid-term / MPP-En 14
- Results and Products: *best practices toolkit for local jurisdictions*

#### Air Quality: En-Action-6

The Puget Sound Regional Council and its member jurisdictions will work with the Puget Sound Clean Air Agency to identify steps to improve air quality beyond the minimum standards.

- Mid-term / MPP-En-17 through 19
- Results and Products: *air quality guide with identified steps*

#### Climate Change Action Plan: En-Action-7

The Puget Sound Regional Council and its member organizations will work with the Puget Sound Clean Air Agency, state agencies, and other environmental professionals to prepare an action plan containing regional and local provisions. The plan should investigate ways to: (a) address climate change in accordance with the Governor's 2007 Climate Change initiative and state legislation on greenhouse gas emissions reduction (RCW 80.80.020), (b) reduce greenhouse gas emissions, and (c) take specific mitigation steps to address climate change impacts. The plan should also address establishing a regional climate change benchmark program.

- Short-term / MPP-En-20 through 25
- Results and Products: *action plan for climate change, climate change benchmark program*

## COUNTY-LEVEL ENVIRONMENTAL ACTIONS

### Critical Areas Coordination: En-Action-8

Counties and cities will coordinate their work to designate and protect critical areas to make identifying and regulating environmentally sensitive areas more consistent.

- Short-term / MPP-En-2, 5, 6
- Results and Products: *Revised Countywide Planning Policies and/or other coordinated plans, regional report and recommendations on progress and outcomes*

### Habitat Assessment: En-Action-9

Counties and cities shall develop common methodologies for assessing the habitat needs of critical and sensitive species.

- Short-term / MPP-En-10 through 12
- Results and Products: *common methodology*

### Water Quality Standards and Targets: En-Action-10

Counties and cities, together with water providers, will develop standards and targets to monitor the region's waterways.

- Mid-term / MPP-En-14, 15, MPP-PS-17 through 20
- Results and Products: *local standards and targets*

## LOCAL ENVIRONMENTAL ACTIONS

### Environmental Planning: En-Action-11

Local jurisdictions, with assistance from the Puget Sound Regional Council, will expand their efforts to conduct environmental planning, specifically to incorporate a more comprehensive systems approach to ecological considerations. The Regional Council will:

- Assist with information on system approaches, such as landscape-scale analysis and adaptive management principles
  - Provide guidance on how to incorporate regionwide environmental planning initiatives — such as the Water Resource Inventory Area (WRIA) process — into local comprehensive plans
  - Develop a system of map overlays to enhance a systems approach to environmental planning
- Mid-term / MPP-En-2
  - Results and Products: *expanded ecological assessment in the preparation of local plans*



# Appendix B

**DESTINATION**  *Update*

Transportation 2040: Climate  
Change and Vehicle Miles  
Traveled



PSRC

PSRC-00006654

# Transportation 2040 and Climate Change

## QUESTIONS

- How will Transportation 2040 address the WA State greenhouse gas emission reduction goals as set forth in SB 6001?
- How will Transportation 2040 address evolving and anticipated direction from the State on vehicle miles traveled (VMT) in response to state reduction benchmarks set forth in E2SHB 2815?

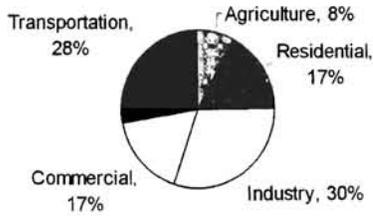
## PRESENTATION OUTLINE

- Climate Change: Sources and Comparisons
- Relevant State Legislation
- The Technology Question
- Transportation 2040: Next Steps



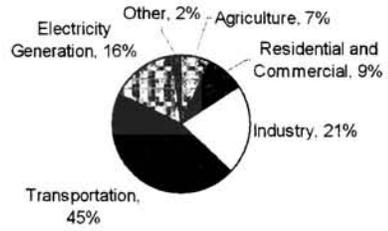
# Climate Change Sources and Comparisons

**US Greenhouse Gas Emissions by Sector, 2004**



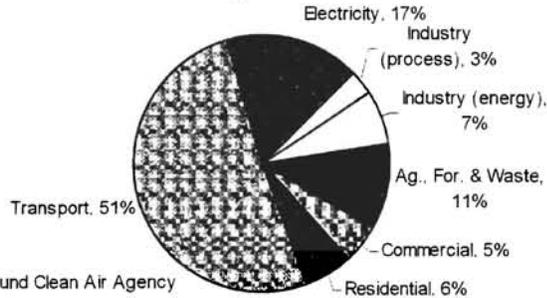
Source: Pew Center on Global Climate Change

**Washington State Greenhouse Gas Emissions by Sector, 2004**



Source: WA Dept. of Community, Trade and Economic Development

**2002 Greenhouse Gas Emissions for the Puget Sound Region**

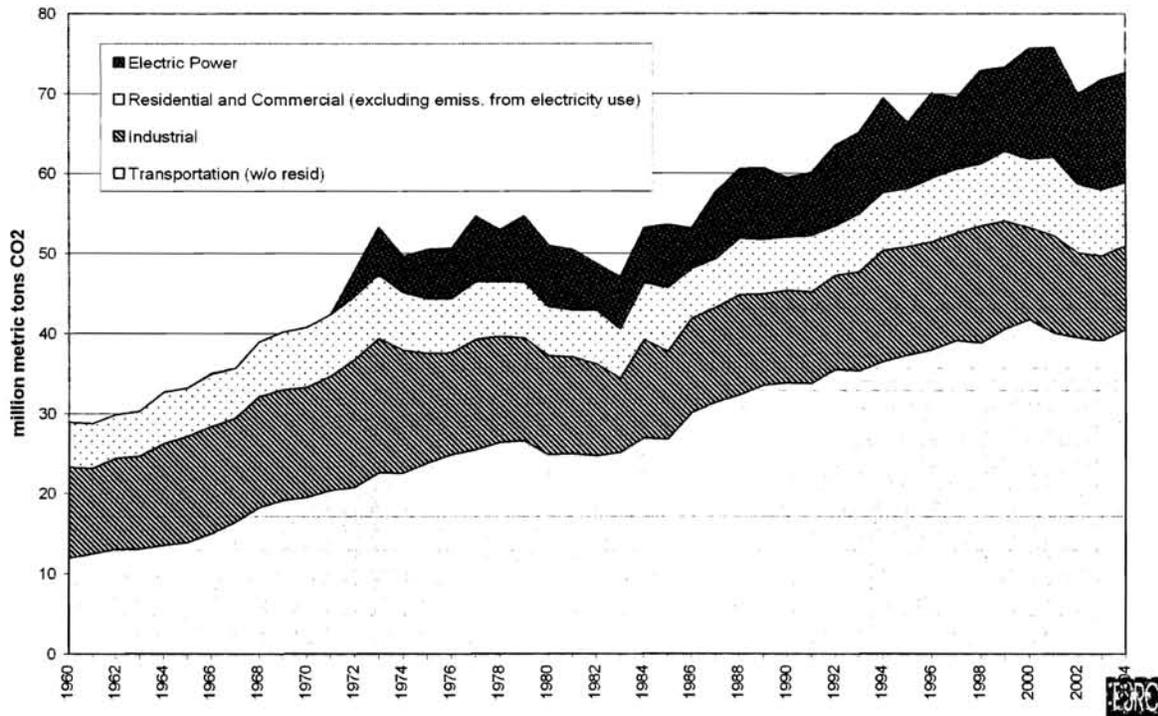


Source: Puget Sound Clean Air Agency



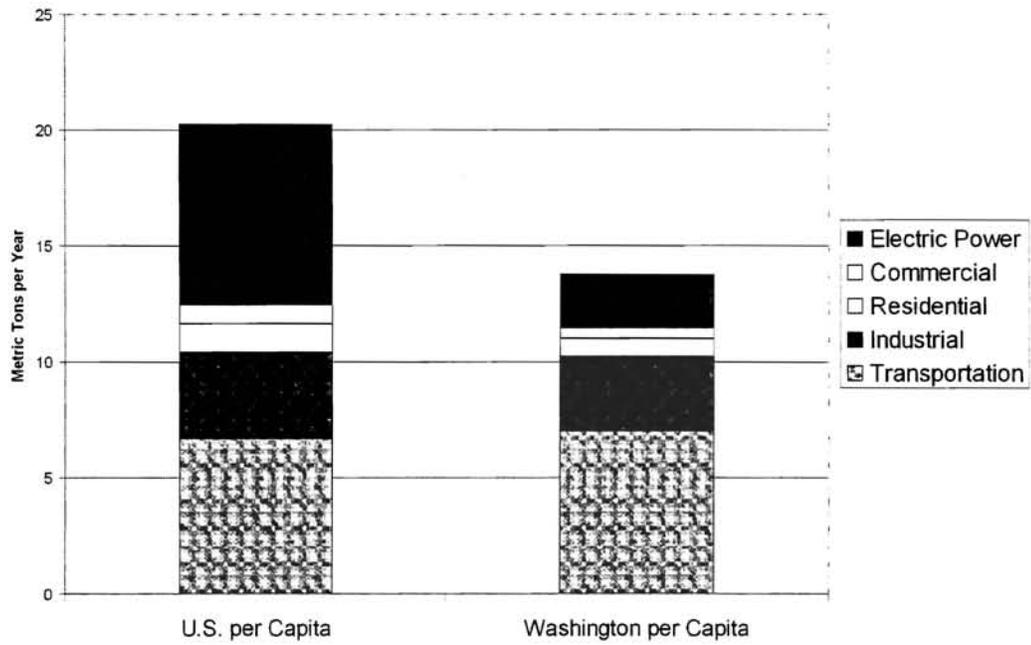
# Climate Change Sources and Comparisons

Cumulative Energy-Related CO<sub>2</sub> Emissions by Sector in Washington State (CTED)



# Climate Change Sources and Comparisons

## CO2 Emissions from Fossil Fuel Combustion

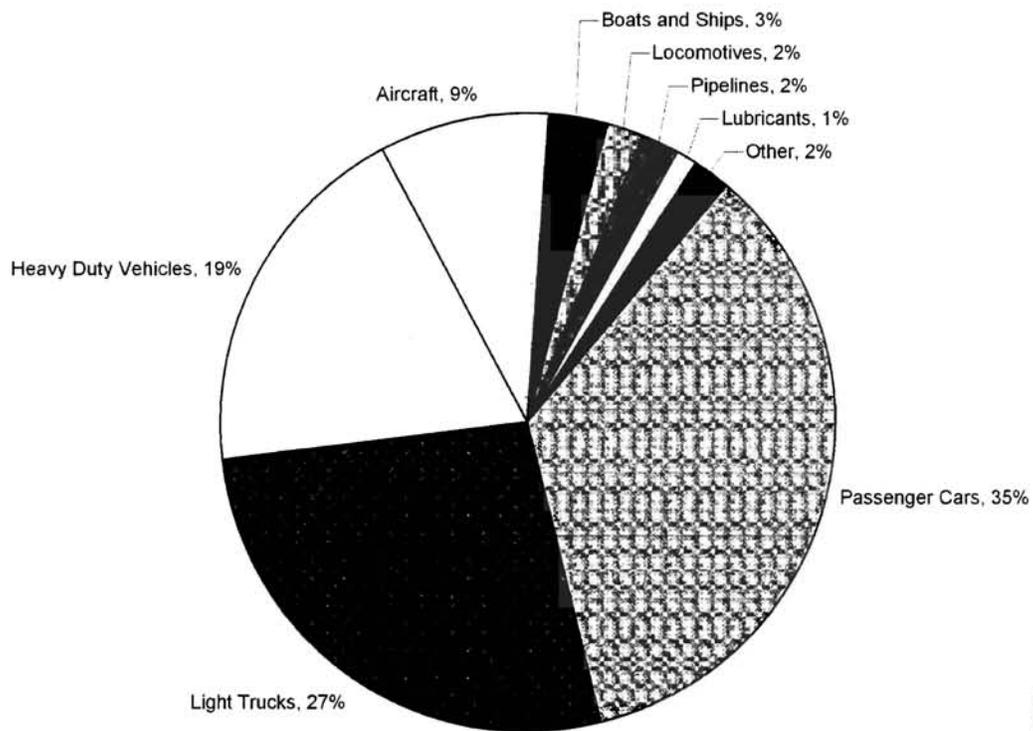


Source: EIA, 2007



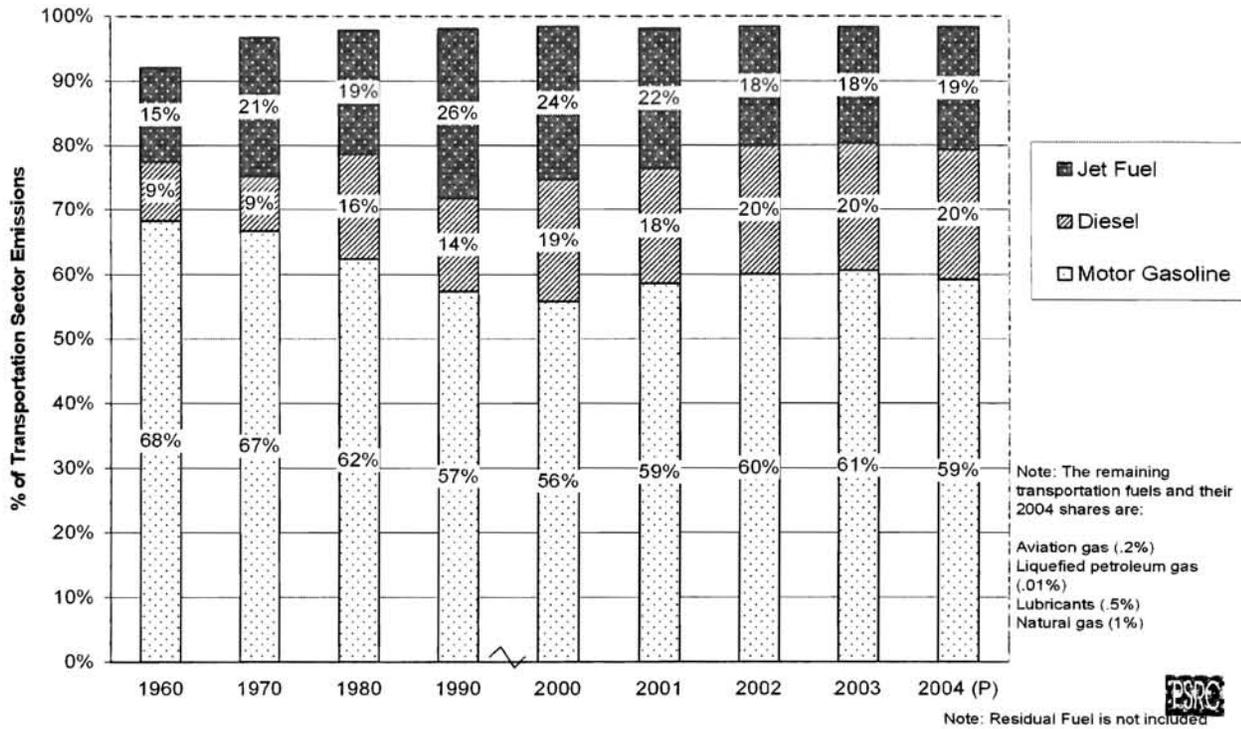
# Climate Change Sources and Comparisons

## 2003 U.S. Transportation Greenhouse Gas Emissions, by Source (EPA)



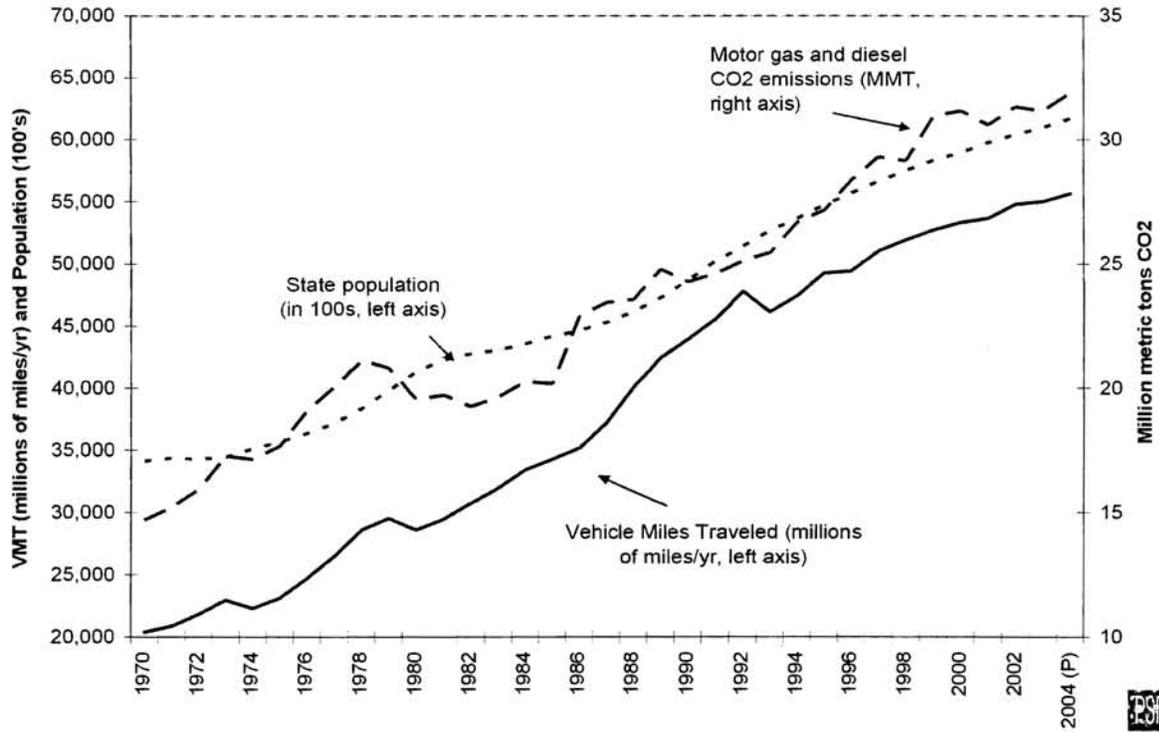
# Climate Change Sources and Comparisons

## Washington State Transportation Emissions, by fuel type (CTED)



# Climate Change Sources and Comparisons

Vehicle Miles Traveled, Population and Transportation CO<sub>2</sub> Emissions for Washington State (CTED)



## Relevant State Legislation

SB 6001 - greenhouse gas emissions (GHG) reductions:

- to 1990 levels by 2020
- to 25% below 1990 levels by 2035;
- to 50% below 1990 levels by 2050

2007 Climate Advisory Team (CAT) proposed 45 strategies to meet goals, from five sectors (transportation, agriculture, energy, forestry, residential/commercial/ industrial)

▪ **13 Transportation Strategies:**

- New Funding Mechanisms
- Transit, Ridesharing and Commuter Choice Programs
- **State, Regional and Local VMT Reduction Goals and Standards**
- Transportation Pricing
- Promotion of Compact and Transit-Oriented Development
- Quantification of GHG Impacts of Transportation Plans, Programs and Projects
- Improvements to Freight Railroads and Intercity Passenger Railroads
- Bicycle and Pedestrian Infrastructure Improvements
- Transportation System Management
- Acceleration and Integration of Plug-In Hybrid Electric Vehicle Use
- Low Carbon Fuel Standard
- Zero Emission Vehicle Standard and Low-GHG Refrigerants



## Relevant State Legislation

2008 Climate Action Team: transform 2007 recommendations into a small number of focused, refined and effective set of actions for the Governor and Legislature to implement

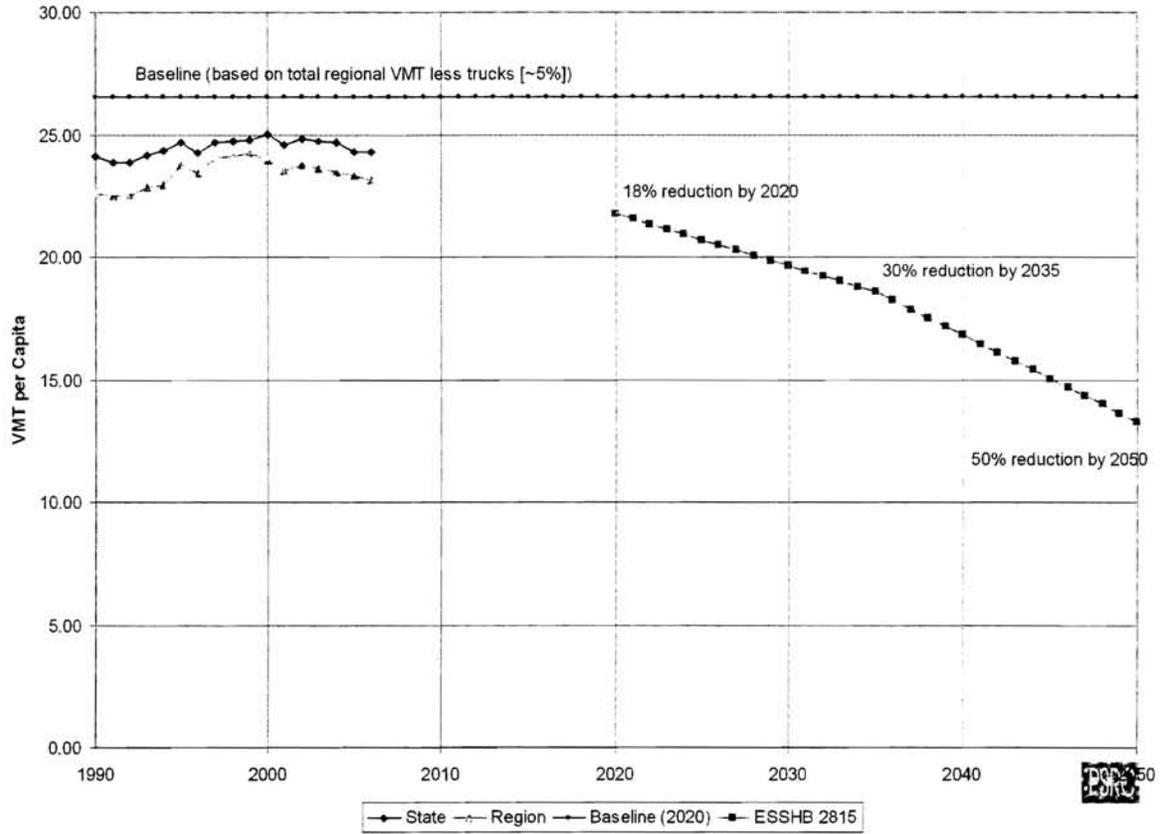
First two key pieces of legislation passed in 2008:

- ESSB 6580 – addressing the impacts of climate change through the Growth Management Act
- **ESSHB 2815** – creating a framework to reduce greenhouse gases in Washington State:
  - Emissions monitoring and reporting system
  - Design a regional multi-sector market-based system
  - Clean energy jobs/Green Economy Jobs Growth Initiative
  - ***Adopt statewide vehicle miles traveled reduction benchmarks***
    - Using a baseline of 75 billion total statewide VMT in 2020, less VMT from trucks:
      - By 2020, decrease by 18%
      - By 2035, decrease by 30%
      - By 2050, decrease by 50%



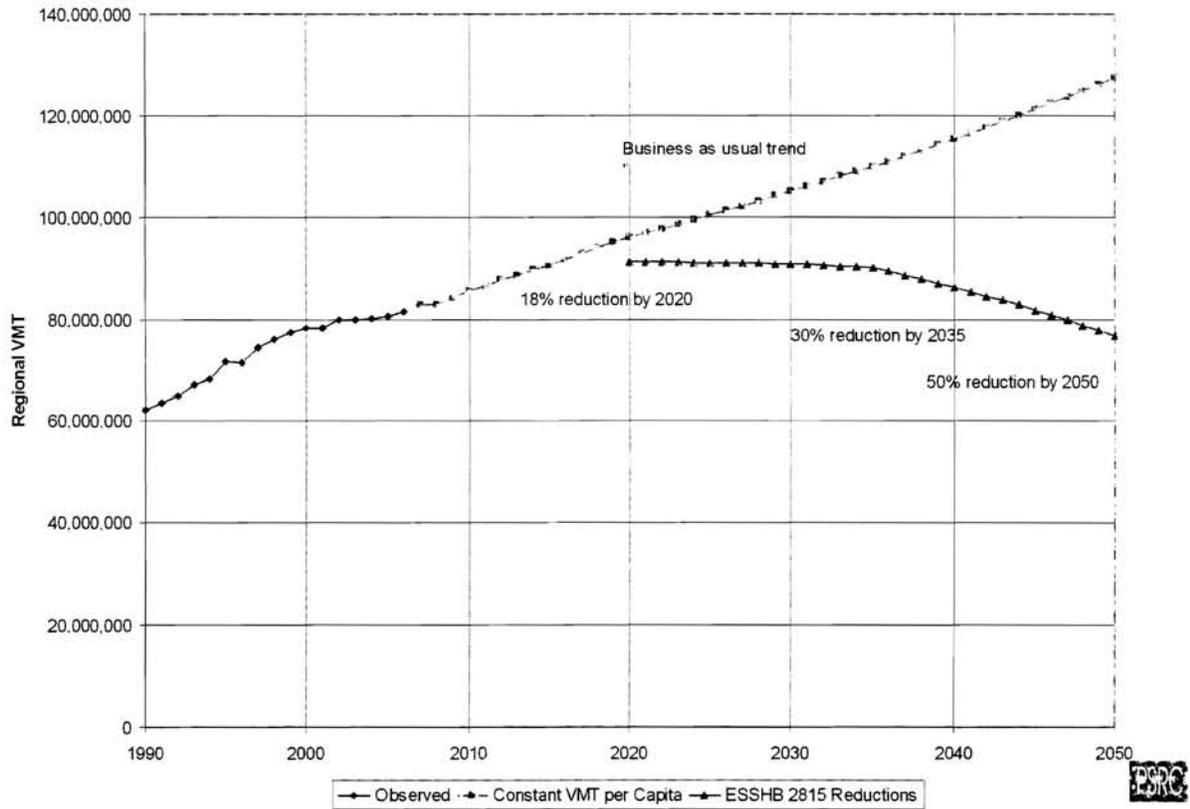
# Relevant State Legislation: VMT Reduction Benchmarks

VMT per capita trends compared to the VMT reduction benchmarks

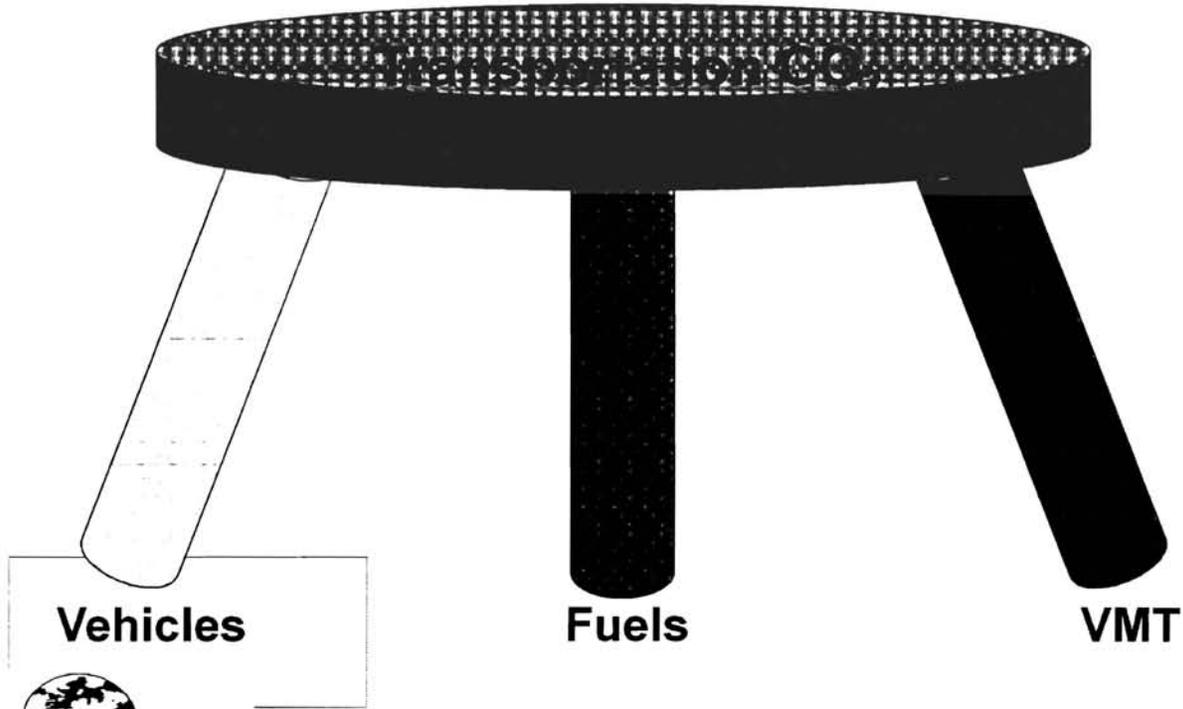


# Relevant State Legislation: VMT Reduction Benchmarks

Forecasted VMT trends, compared to VMT reduction benchmarks

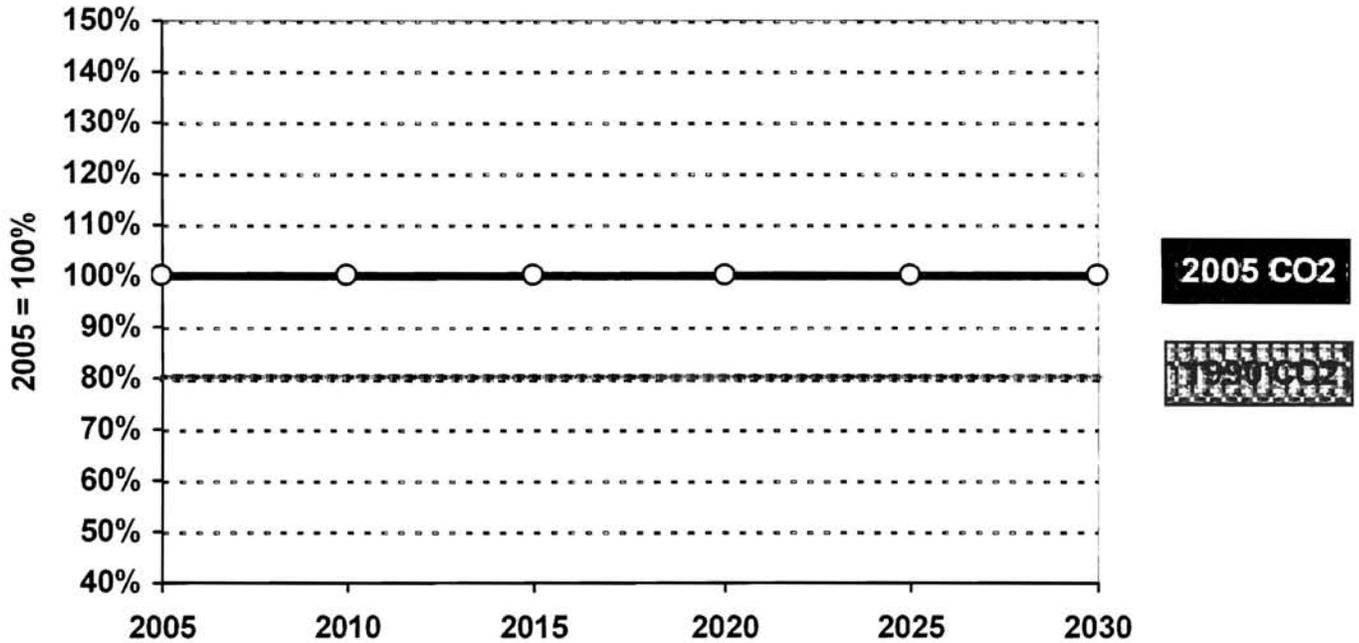


# Emission Reductions from Transportation: Three Key Components



# The Technology Question: Vehicles and Fuels

2005 carbon dioxide levels are ~20% above 1990 levels

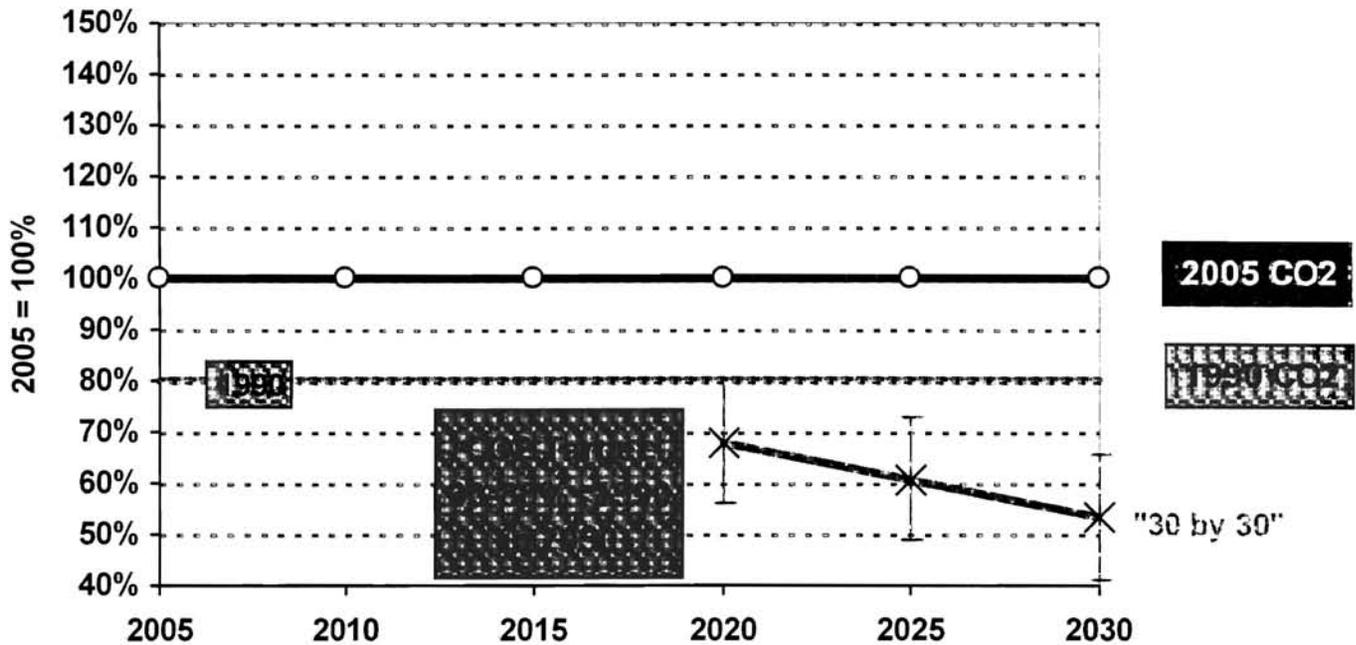


Source: S. Winkelman based on EIA AEO 2008.



# The Technology Question: Vehicles and Fuels

The "stabilization" goal is 60-80% below 1990 levels by 2050 = ~33% below 1990 levels by 2030

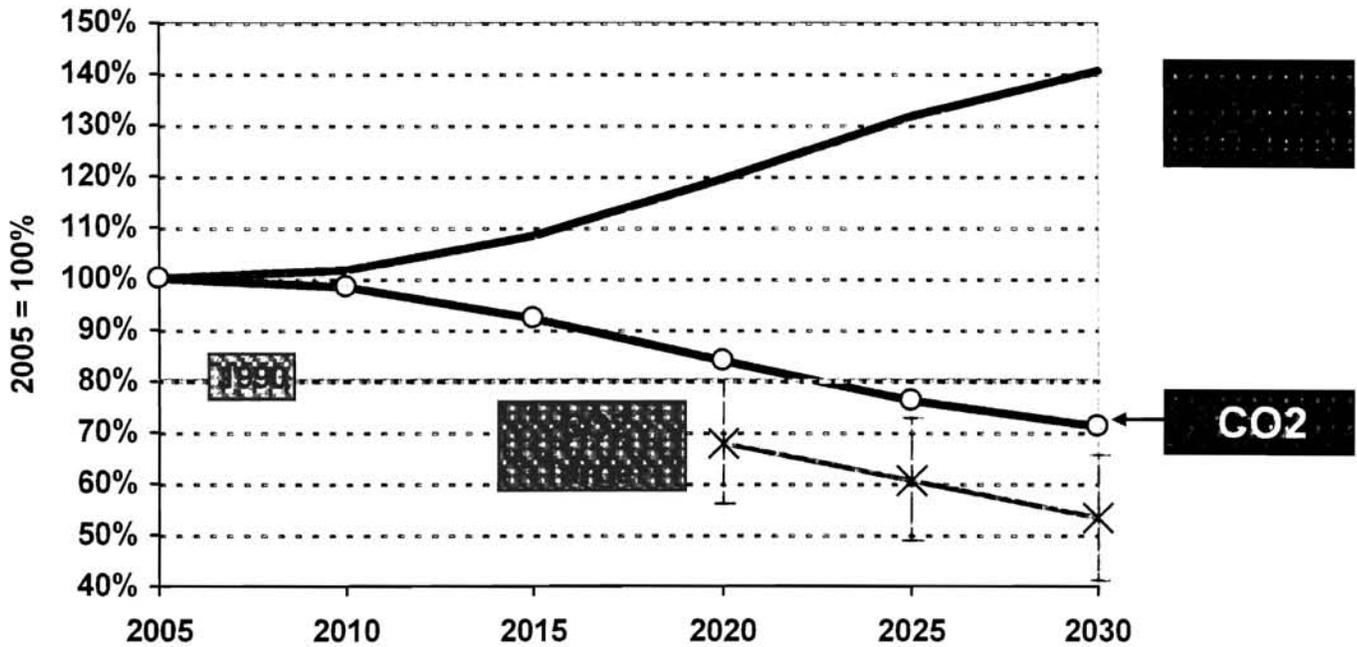


Source: S. Winkelman. See citations in *Growing Cooler*.



# The Technology Question: Vehicles and Fuels

New CAFÉ Standards: 35 MPG fleet average for new vehicles in 2020 = 2030  
CO<sub>2</sub> at 11% below 1990 levels

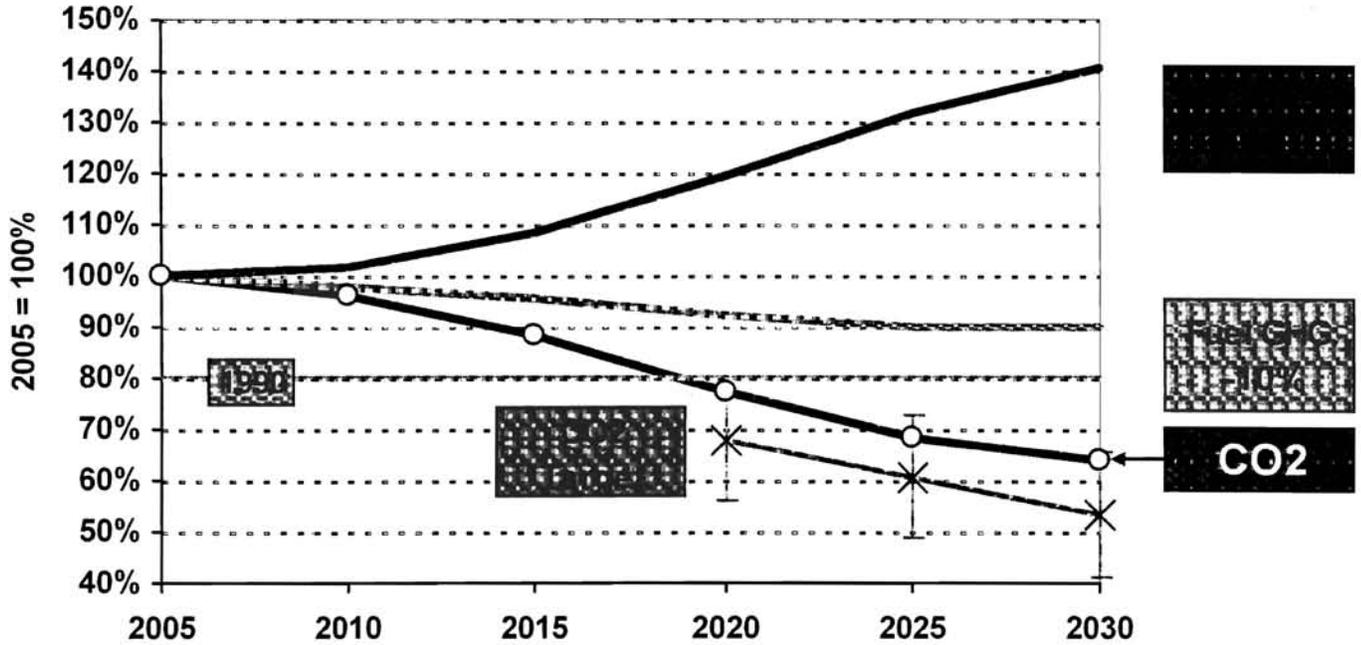


Source: S. Winkelman based on EIA AEO 2008 (revised) and *Growing*



# The Technology Question: Vehicles and Fuels

New CAFÉ Standards of 35 MPG + 10% reduction of greenhouse gases in fuel by 2025 = 2030 CO<sub>2</sub> at 20% below 1990 levels

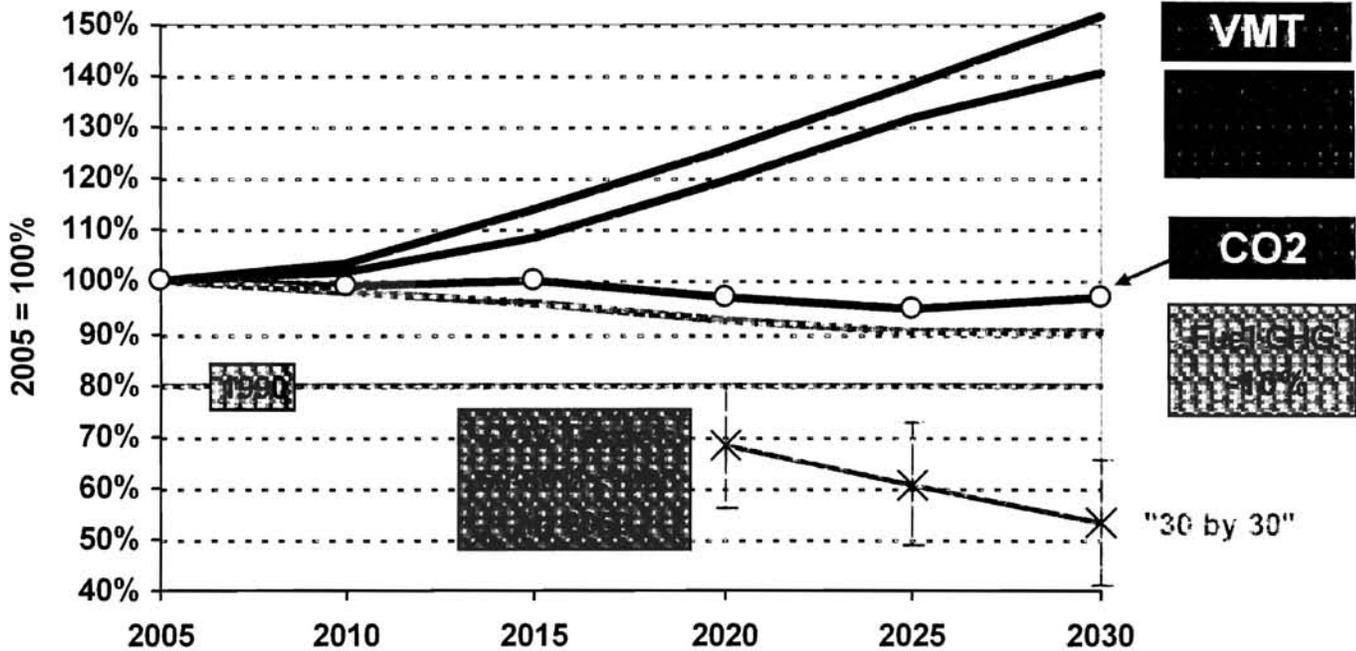


Source: S. Winkelman, based on EIA, HR6 and *Growing Cooler*.



# The Technology Question: Vehicles and Fuels

Add anticipated growth in VMT = 2030 CO<sub>2</sub> at 21% above 1990 levels

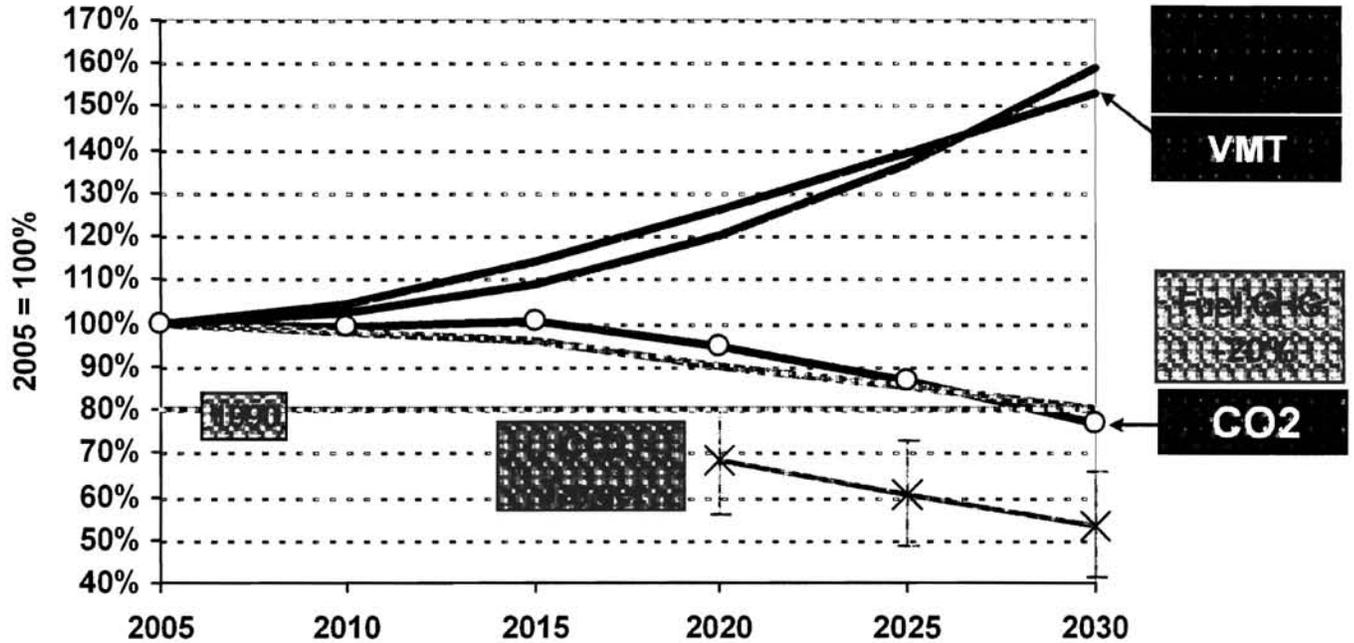


Source: S. Winkelmann based on EIA, HR6 and *Growing Cooler*.



# The Technology Question: Vehicles and Fuels

Aggressive technology improvements: 50 MPG fleet average by 2030 + 20% reduction of greenhouse gases in fuel = 2030 CO<sub>2</sub> at 4% below 1990 levels



Source: S. Winkelman based on AEO 2008, HR6, stock model calculations and sources cited in *Growing Cooler*.



# Transportation 2040: Next Steps

## Questions:

- How will Transportation 2040 address the WA State greenhouse gas emission reduction goals as set forth in SB 6001?
- How will Transportation 2040 address evolving and anticipated direction from the State on vehicle miles traveled (VMT) in response to state reduction benchmarks set forth in E2SHB 2815?

## Three proposed options:

**Passive Approach:** Report on the greenhouse gas emissions and VMT implications of the proposed alternatives (yet to be developed).

**Active Approach, focus on overall emissions reduction:** Develop an alternative that attempts to meet the state greenhouse gas emission reduction goals, given assumptions about transportation's share of the overall emissions reduction target, and further assumptions about how much transportation technology and fuel technology would contribute to meeting the goals.

**Active Approach, focus on VMT reduction:** Develop an alternative that attempts to meet the state greenhouse gas emission reduction goals, by focusing first on the state VMT reduction benchmarks and then identifying additional reductions that are needed from technology and fuels.



## Additional slides for background information



# Transportation: Vehicles, Fuels and VMT

## Alternative VMT per capita reductions – light duty vehicles only

Case	2030 VMT vs. 2007	2007 - 2030 VMT Growth	2030 GHG vs. 1990
a) Current (2007)	NA	NA	23%
b) EIA Forecast (AEO 2008)	152%	1.8%	22%
<b>VMT SCENARIOS*</b>			
c) 50mpg CAFE, -20% Fuel GHG	154%	1.9%	-4%
d) Cut VMT growth in half**	126%	1.0%	-21%
e) Flat VMT per capita	121%	0.8%	-25%
f) -10% VMT per capita	109%	0.4%	-32%
g) -17% VMT per capita	100%	0.0%	-38%
h) -30% VMT per capita	85%	-0.7%	-47%
<b>Target:</b>			<b>-20% to -47%</b>

\*Note: All scenarios assume 50 mpg CAFE in 2030 and 20% fuel GHG

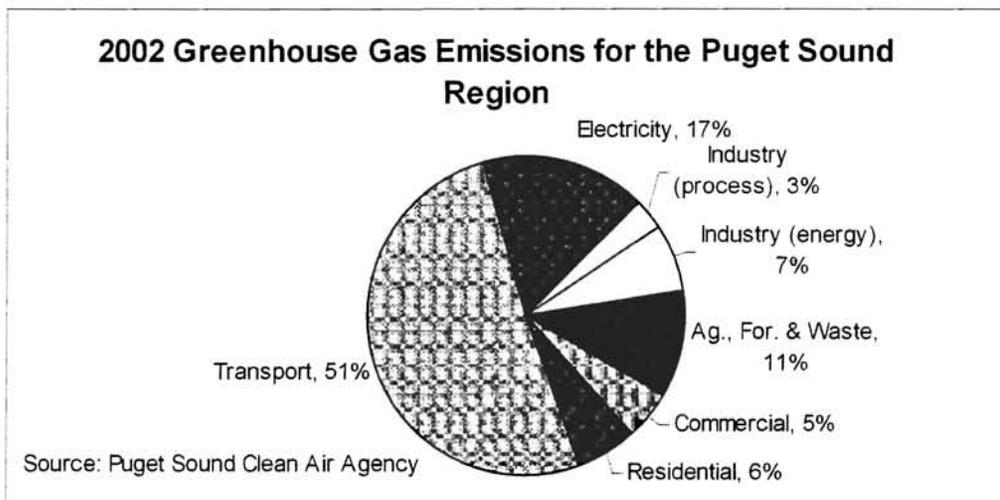
\*\* This is AASHTO's sustainability goal.



# Natural (Biogenic) Sources of Greenhouse Gas Emissions

The chart below includes some natural sources of greenhouse gas emissions, contained in the agriculture and forestry sectors

- Emissions from natural sources are balanced by the uptake of emissions, or the “carbon sinks,” such as through ocean absorption and photosynthesis of plants – natural sources are therefore mostly in balance
- Not all emission sources can be quantified



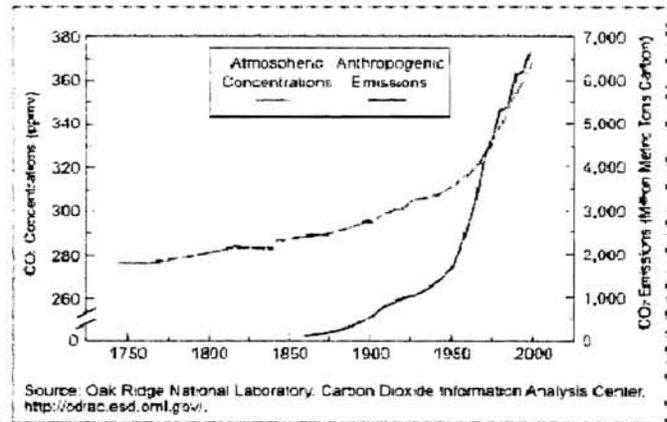
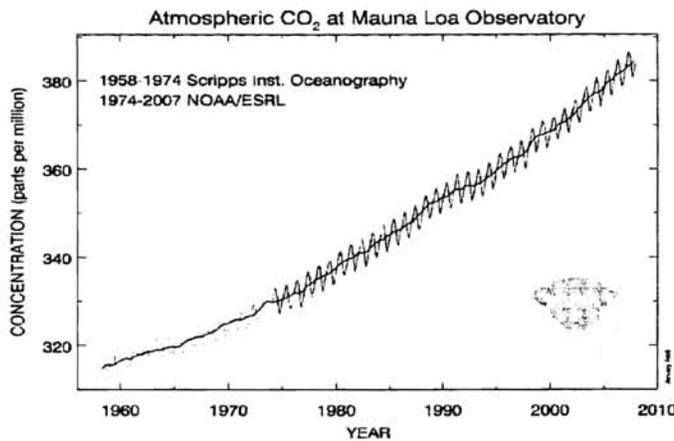
# Natural (Biogenic) Sources of Greenhouse Gas Emissions

The earth's climate has gone through natural cycles of warming and cooling

- Factors include volcanic eruptions, changes in orbit

However, global atmospheric concentrations of carbon dioxide have increased, far exceeding the natural range

- Natural sources are closely balanced by natural sinks; as a result, the atmospheric concentration of carbon dioxide remained fairly constant until the start of the industrial era



# Natural (Biogenic) Sources of Greenhouse Gas Emissions

**The primary source of carbon dioxide emissions is the burning of fossil fuels**

- *Contributing factors include changing land use patterns through agriculture and deforestation*

“During the past century humans have substantially added to the amount of greenhouse gases in the atmosphere by burning fossil fuels such as coal, natural gas, oil and gasoline to power our cars, factories, utilities and appliances. The added gases are enhancing the natural greenhouse effect, and likely contributing to an increase in global average temperature and related climate changes.” (USEPA)

“Most of the warming in recent decades is very likely the result of human activities.” “There is 90% certainty that the burning of fossil fuels and other human activities are driving climate change.” (IPCC)



# VMT Reduction Benchmarks and Greenhouse Gas Emission Reductions

## 2020 Reduction Targets:

SB 6001: reduce greenhouse gas emissions to 1990 levels

ESSHB 2815: reduce VMT by 18%

## Emissions Inventories:

1990 = 58.4 million metric tons CO<sub>2</sub> equivalent (MMTCO<sub>2</sub>e)

2020 = 91.9 MMTCO<sub>2</sub>e

Reductions needed to reach 1990 levels = 33.5 MMTCO<sub>2</sub>e

E2SHB 2815: ~4.7 MMTCO<sub>2</sub>e, or ~14% of overall 2020 emissions reduction target

In comparison, all 13 transportation recommendations from the 2007 CAT ~ 33% of overall 2020 emissions reduction target

Remaining 67% assumed to come from other sectors

