From:	Cheryl Trivison
To:	sr520deiscomments@wsdot.wa.gov..inet.qwest.net;
CC:	
Subject:	SR 520--support 4-land alternative & includes Seattle Urban Forest Stakeholders comments
Date:	Tuesday, October 31, 2006 1:27:37 PM
Attachments:	StakeholdersUFMPcomments 102806.doc

October 31, 2006

Governor Christine Gregoire
Office of the Governor
P.O. Box 40002
Olympia, WA 98504

Dear Governor Gregoire:

I-1097-001 We are writing in opposition to the proposed Pacific Interchange Six-lane 520 bridge that would expand SR520 into Union Bay and Marsh Island. We have lived and worked in Seattle for the past 30 years mostly in the Roanoke Portage Bay, Eastlake and currently in the North Capitol Hill neighborhood. In other words we live near and use the arterials, on-off ramps of SR520 every day and are accustomed to the traffic, interchanges and all that entails. We feel we live in one of the most beautiful and centrally located areas of Seattle with convenient access to downtown Seattle and the east side.

What makes our home special is that we are within walking distance to the Arboretum and Union Bay wetlands and fish and wildlife. The Arboretum, Foster and Marsh Islands are sacred places not just for the city, but also for the region. Their continued existence is worth more than a bridge/highway.

Our personal motto is "no more concrete for cars"; we use public transit whenever possible; our office and home are within walking distance to one another; we are active and founding members of Seattle Urban Forest Stakeholders to save Seattle's mature, big trees which would go a long way in improving canopy cover. The following is a quote taken from the Seattle Urban Forest Stakeholders comments (dated 10/28/06, copy attached) to Seattle Mayor's draft Urban Forest Management Plan: *"We are too slow realizing that our future is not going to look like the past. Climate change, including global warming, is here."*

Public discussion and resources should be about public transportation and not highways for cars. Please support the 4- lane alternative and convert to HOV and transit lanes from general purpose use and direct single-occupancy vehicles to the I-90 Bridge.

Help us change and encourage more comprehensive and environmentally responsible solutions to Seattle's current and controversial transportation problems.

Thank you for your attention to this matter.

Cheryl Trivison
Richard Haag
1112 East Lynn Street
Seattle, WA 98102

I-1097-001

Comment Summary:

4-Lane Alternative

Response:

See Section 1.2 of the 2006 Draft EIS Comment Response Report.

Comments on the City of Seattle's
Draft Urban Forest Management Plan
By Seattle's Urban Forest Stakeholders

This 10-year installment of a 30-year plan from the Mayor and the nine City departments comprising the Urban Forest Coalition won't save the few healthy, mature, big trees left to us; nor will it grow our contiguous urban canopy to acceptable environmental levels soon enough to save our city from the rapidly increasing costs of its steady environmental decline.

The draft plan claims that our urban forest has declined from 40 percent in 1972 to 18 percent now, in 2006. Most sources say that it had declined from 40 percent in 1972 to 18 percent by 1996. Ten more years of business as usual has surely brought that figure down even lower. But we can't say for sure. There is no up-to-date inventory of Seattle's trees.

The draft document focuses on the advantages of improving our urban forest. We would like the plan to clearly articulate goals that emphasize protection and stewardship of our existing and future urban forest. Here are some key changes in urban forest management that we suggest be emphasized in Seattle's plan:

- Maintain and protect the most valuable trees we still have, the mature, healthy, big trees that make up the top story of our canopy.
- Identify the trees we have, beginning with our public canopy but including our private canopy as well.
- Initiate and reactivate citizen involvement in urban forestry.
- Plant to increase the environmental, economic, and social benefits of our urban forest canopy for the future. Set goals, and finance them.
- Plant strategically for maximum environmental, economic, and social benefits.
- Calculate the current fiscal values of our trees in order to maximize the future value of our canopy and guide land use decisions.
- Repudiate once and for all the notion that trees cause crime, and recognize instead the social and psychological benefits trees confer on the community.

We therefore propose that the following elements be included in the draft plan's unwritten Section 5, Moving Forward. Seattle urgently needs the following changes, all of which are doable within the next three years:

1. An immediate moratorium on the removal of mature, healthy trees for any reason other than imminent hazard. Stop removing trees in the mistaken notion that such a measure will reduce crime. Mobilize before our existing most valuable (mature) trees are gone.

2. An increase in large tree stewardship by means of additional tree crews. Instead of focusing on removal, use those funds to extend the lives of mature trees by best management practices. Prune for strength and longevity, not merely for power lines. Many cities measure their tree stewardship achievement as a multi-year pruning cycle; with current resources Seattle's pruning cycle is measured in decades.

3. An inventory accurate, complete, and ongoing, so that we know the number and makeup of our existing urban forest. The draft plan's inventory dates from 1990 and 1992 and is not updatable. Implement procedures to update the inventory with new plantings and tree/forest management. Use the inventory to proactively identify and respond to urban forest needs.

4. A single City Tree Department with responsibility for and authority over trees. Currently, the nine responsible city departments too often operate at cross-purposes. Include the development of an incentive program and a tough tree ordinance with stiff penalties, covering both public and private trees. This department would model best practices in tree care and protection.

5. A citizen Tree Advisory Board should be created to advise and inform the City Tree Department on Urban Forest matters and to engage Seattle's citizens in tree stewardship. Further, restore the Tree Stewards program:

once operated by the Seattle Transportation Department, the program was a national model of citizen training for tree care.

6. An analysis of this city's tree canopy along the lines of Los Angeles' tree canopy analysis model to study where to plant trees strategically, for the greatest public benefit.

The DUFMP canopy goals are inadequate. Further, the information in the "Management Unit" matrix used throughout the DUFMP should be reworked so that values are consistent and have meaning.

Economists are learning to quantify and assign monetary values to the benefits of trees, making more obvious their crucial importance in this city. The draft plan spells out some of the public benefits our trees provide: removal of air pollutants, increase in summer cooling, control over stormwater runoff. The plan could also have recognized the aesthetic value of trees year 'round. A tree can be valued as an air-conditioning machine, as a water pump, as a filter, as a social good, but its most elemental appeal to us is as a thing of beauty.

We are too slowly realizing that our future is not going to look like our past. Climate change, including global warming, is here. The conditions under which trees will have to grow in the future are not the conditions of the present or the past. The opportunity to preserve an established tree, to allow a fifty-year old tree to grow for its "design lifetime" of 200 years, is one we cannot afford to squander. We can't expect that a tree we plant today will live for fifty, much less two hundred, years.

All of the trees within Seattle's city limits make up our Urban Forest: public trees in our parks, along our streets and arterials, along the state's transportation corridors and in the state's rights of way, on port properties, on university campuses, at our street ends, on our school grounds, and along our trails, creeks, shorelines, and hillsides; "semi-public" trees in our curb lawns; "private" trees in our yards and, increasingly, on our apartment decks and terraces; and on business and institution grounds.

For genuine sustainability, this city must learn to conserve its existing assets.
Among our major assets are our mature trees.

APPENDIX: Tree Benefits and Values

Carbon Sequestration

- Carbon—the greenhouse gas. One hundred trees per year remove 5 tons of carbon dioxide from the air. Source: Sacramento Regional Urban Forest Framework, "GreenPrint."
- One acre of trees sequesters as much carbon dioxide as a car produces in 26,000 miles. Source: "How does an urban forest contribute to sustainability?" Seattle Office of Sustainability and Environment website.
- Conserving energy in buildings reduces carbon dioxide emissions from power plants. E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 18.
- The removal and mulching of dead trees releases 80 percent of their stored carbon into the air in the year of removal. The concomitant use of vehicles, chain saws, chippers, and other gasoline- and diesel-powered machines increases the carbon in the air. E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 19.
- Shaded parking lots reduce hydrocarbon emissions from parked cars by 18 to 21 percent. Source: Sacramento Regional Urban Forest Framework, "GreenPrint."

Air Quality Improvement

- Air pollutants—ozone, nitrogen dioxide, sulfuric oxides, particulates. One hundred trees per year remove 1,000 pounds of such pollutants. Source: Sacramento Regional Urban Forest Framework, "GreenPrint."
- Trees reduce air pollutants by 25 percent in cities. Source: Sustainable Urban Forests Coalition, "National Agenda for Well Managed Urban Forests."
- Parking lots—heat islands. Cars parked in lots with 50 percent canopy cover emit 8 percent less evaporative emissions than cars in lots with only 8 percent canopy cover. Source: David Hitchcock, AICP, "Cool Houston," Power Point screen for talk at Houston Advanced Research Center, September 2004.
- One acre of trees provides enough oxygen for 18 people. Source: "How does an urban forest contribute to sustainability?" Seattle Office of Sustainability and Environment website.
- One tree over a 50-year lifetime generates $31,250 worth of oxygen and $62,000 worth of air pollution control. Source: Michigan State University, *Update Forestry*.

Water Quality Improvement/Stormwater Flow Reduction

- The greater the tree canopy percentage, the less impervious surface there is. Source: American Forests, *Regional Ecosystem Analysis Puget Sound Metropolitan Area: Calculating the Value of Nature* 7/25/98.
- Impervious surfaces increase water temperature (thermal pollution) and pollute water with lawn fertilizers, oils, and other contaminants that flow into receiving water supplies and increase costs for building retention ponds and additional stormwater facilities and treating water. Source: Cheryl Kollin, "Quantifying the contributions of trees and vegetation," StormWater.
- Tree canopies and root systems naturally filter water supplies and reduce storm water runoff, flooding, and erosion. Source: Alliance for Community Trees, "The Value of Trees."
- In heavily forested areas of western Washington, 74 percent of rainfall is released back to the atmosphere or absorbed into the ground. Source: Kathleen L. Wolf, "Tree investment brings many happy returns," *Environmental Outlook 2001*.
- In the Puget Sound area, the rainfall interception provided by a two-story leafy canopy is especially important during our rainy winters. A two-story canopy has a leaf area 2 to 8 times the land area it covers. Source: Sacramento Regional Urban Forest Framework, "GreenPrint."
- A city's urban forest can reduce peak storm runoff by 10 to 20 percent. Source: "How does an urban forest contribute to sustainability?" Seattle Office of Sustainability and Environment website.
- In one Milwaukee neighborhood with 42 percent tree canopy, runoff was reduced by 20 percent. Source: National Arbor Day Foundation, *Arbor Day,* July/August 2006, 7.
- One tree over a 50-year lifetime recycles $37,500 worth of water and controls $31,250 worth of soil erosion. Source: Michigan State University, *Update Forestry*.

Noise Reduction

- Thick strips of vegetation combined with berms and solid barriers can reduce highway noise by 6 to 15 decibels. Plants absorb more high frequency noise (the noise most distressing to people) than low frequency noise. E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 11.

Energy Savings

- Shade for cooling: direct shade and water evaporation from leaves combine to produce cooler

air. Four trees planted around a house can save as much as 30 percent on summer cooling costs. Source: Alliance for Community Trees, "The Value of Trees."

- Tree shade that protects houses and other buildings on the east and west helps keep them cool, for an estimated 36 percent reduction in cooling costs. Source: E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 6.
- Conifer windbreaks buffer houses and other buildings and create a dead air space to reduce heat loss in winter. Source: "How does an urban forest contribute to sustainability?" Seattle Office of Sustainability and Environment website.
- Deciduous ("solar-friendly") trees planted on the south of houses and buildings help heat houses and reduce heating costs. Source: E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 6.
- Mature, large trees produce approximately 4 to 6 times the energy savings of small trees. Source: E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 31.

Infrastructure Savings

- Shade on asphalt roads and parking lots extends the time between needing to resurface by 50 percent. Such savings on roads can be translated into $30,000 savings per mile for resurfacing. Source: Sacramento Regional Urban Forest Framework, "GreenPrint."

Property Value Increases, Increased Tax Revenues, and Increased Gains

- Studies say that four trees on a property can speed its sale by four to six weeks. Source: Alliance for Community Trees, "The Value of Trees."
- In Sacramento, a residential mature valley oak may be appraised at $20,000 or more. Source: Alliance for Community Trees, "The Value of Trees."
- Trees on property or associated with property increase market value by 3.5 to 7 percent. Source: E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 10.
- Mature trees raise property values by as much as 20 percent. Source: "How does an urban forest contribute to sustainability?" Seattle Office of Sustainability and Environment website.

Business Gains

- A shaded business district encourages shoppers to linger and to spend more and has been shown to increase prices consumers will pay by as much as 12 percent. Shoppers will also increase the number of visits they make to a business. Source: Sacramento Regional Urban Forest Framework, "GreenPrint."
- Employees with nature views report 23 percent fewer health ailments, a positive influence on absenteeism. Source: Kathleen L. Wolf, "Tree investment brings many happy returns," *Environmental Outlook 2001*.
- Quality of place—treed landscapes attract companies and the best employees. Source: Kathleen L. Wolf, "Tree investment brings many happy returns," *Environmental Outlook 2001*.

Health Gains

- Heat-related deaths have risen dramatically since 1994—in Chicago, for instance, from an average 3 deaths per year in the years before 1995 to a sudden 15 deaths per year in 1995. Source: David Hitchcock, AICP, "Cool Houston," Power Point screen for talk at Houston Advanced Research Center, September 2004.
- Views of trees and visits to hospital green spaces reduce hospital stays. Source: David Hitchcock, AICP, "Cool Houston," Power Point screen for talk at Houston Advanced Research Center, September 2004.
- Trees reduce exposure to cancer-causing ultraviolet radiation. Source: E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 11, 25.

Social Gains/Public Safety

- Treed neighborhoods decrease violent episodes that are associated with mental fatigue. Kathleen L. Wolf, "Tree investment brings many happy returns," *Environmental Outlook 2001*.
- In public housing complexes, outdoor spaces with trees are used significantly more often than spaces without trees. Trees thus facilitate interactions among residents, contributing to lower domestic violence and safer, more sociable neighborhood environments. Source: E. Gregory McPherson et al., "Western Washington and Oregon Community Tree Guide: Benefits, Costs, and Strategic Planning," Center for Urban Forest Research, USDA Forest Service, Pacific Southwest Research Station, 10.
- Traffic calming—research has indicated that the presence of trees in the roadside reduces traffic stress response (road rage). Kathleen L. Wolf, "Tree investment brings many happy returns," *Environmental Outlook 2001*.
- Along tree-lined transportation corridors, cars are driven more slowly, drivers are more aware, and human comfort and safety is improved. Source: Sacramento Regional Urban Forest Framework, "GreenPrint."

Aesthetic Gains

- Incalculable