-----Original Message-----
From: Bill Mundy [mailto:bill@mundyfarms.com]
Sent: Tuesday, April 13, 2010 7:49 AM
To: SR 520 Bridge SDEIS
Cc: Mundy Mary
Subject: SDEIS Comments

Attached are our comments. We would appreciate your acknowledging receipt of this document. Thank you.

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April 13, 2010

Jenifer Young
SR520, I-5 to Medina: Bridge Replacement and HOV Project
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SR520 Project Office
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Dear Ms. Young:

C-045-001 The following are comments that we have regarding WSDOT's Supplemental Draft Environmental Impact Statement (SDEIS). Bill Mundy, as Chairman of the Canterbury Shores SR520 Committee, has also reviewed and commented on the SDEIS under a separate document. Our concerns parallel those found in the separate document in most instances. There are some exceptions, especially regarding health matters.

Attachment 7, Discipline Reports

Air Quality

Dust. Particulate Matter (PM). There is NO analysis of PM during construction and operation on a seasonal basis. During summer months wind from the north significantly increases PM along North Madison Park (NMP) and at Canterbury Shores (CS). Your averages MISSTATE the seasonal effects.

Health

C-045-002 It is our understanding there has been a health impact assessment that has been made regarding the SR520 project. There is no evidence of that in the Discipline Reports. The air quality report simply assumes that since air quality will not deteriorate there are no adverse human health affects. There is no quantitative data regarding the broad range of health affects (air, noise, vibration, etc.) on specific types of health problems. For example, what is the relationship between increased SR520 noise and mental illness?

Wetland

C-045-003 The amount of wetland that will be affected by construction is significantly underestimated. Material in the DSEIS excludes the impacts of the temporary bridge

C-045-001

A quantitative analysis of construction air quality effects, including diesel exhaust from construction equipment and hauling, fugitive dust from demolition and site grading, emissions associated with workers' commutes, and other construction-related air quality concerns, is included in the Air Quality Discipline Report Addendum (Attachment 7 to the Final EIS). During construction, best management practices will be used to minimize construction emissions. WSDOT will comply with the procedures outlined in the Memorandum of Agreement between WSDOT and the PSCAA for controlling fugitive dust. Federal regulations require the use of ultra-low-sulfur diesel fuel in on-road trucks, and regulations that took effect in 2010 require the use of ultra-low-sulfur diesel fuel for construction equipment. See the Mitigation Measures section of the Addendum for further discussion.

Exhibit 8 on page 17 of the Air Quality Discipline Report shows the averaging periods for standards for particulate matter and other pollutants. The measurements of air quality criteria pollutant concentration levels, including particulate matter, shown on Exhibit 10 on pages 21 and 22 of the Air Quality Discipline Report, reflect these averaging periods (Exhibit 10 provides more specific information on how these values were calculated). Averages are not intended to reflect the highest value. More information on existing air quality is available from the Puget Sound Clean Air Agency (PSCAA), at http://www.pscleanair.org/airq/reports.aspx.

C-045-002

The SR 520 Health Impact Analysis (HIA) was developed in response to ESSB 6099 to support and inform legislatively mandated mediation efforts, and was to be included in the Project Impact Plan developed by the Mediation Group. King County Health and the Puget Sound Clean Air Agency led preparation of the HIA with support from WSDOT. All parties agreed that the HIA was not part of the NEPA process, though the HIA

C-045-003 which will be built to the south of the existing bridge and the boat and barge traffic in this very shallow wetland area. There is NO indication of the type and extent of mitigation.

Wildlife

C-045-004 Great Blue Heron.

The Great Blue Heron (Heron) is a state listed priority species. The DSEIS states there are no species of special interest. The Blue Heron is NOT mentioned. Page 4-43 states "No large trees would be removed therefore potential rockery habitat for the Great Blue Heron would not be affected." Large trees are NOT a determinant. Heron roost in mid-sized to small trees, especially in Arboretum Area 712 where their habitat will be destroyed by construction activity. This is an OMISSION.

C-045-005 Beaver.

Page 4-44 mentions and includes a photograph of one beaver lodge. Due to the nature of the graphics it is NOT possible to determine the location of the cited beaver lodge. However, in this vicinity there are three NOT one beaver lodge. The DSEIS text states the beaver lodge would be destroyed and they would have to construct a new one. It is highly likely that all three lodges would be destroyed as all three are in close proximity to the existing SR520 right of way. Beavers are very protective of their environment. The text states only their reproductive process would be affected.
A distinction between beavers in general and the three beaver lodges, particularly the one at the 37th Ave. E. street end needs to be made. In the case of all three lodges these are unique animals living in close proximity to an urban area. The lodge at the 37th E. street end is one of three that we know of, in the entire Metropolitan Seattle Area that can be easily observed from the land at a distance of about 50 feet.
The EIS fails to analyze the impact of the 520 construction on these particular animals. There is no plan as to how to minimize the impact on them during and after construction. The beavers give birth to their young between Feb. and April. The kits, usually 4-6 in number, are nurtured by their mother from April 1 to October 1. The disturbance of construction during the nurturing period is particularly detrimental to the animals occupying these lodges. The lodge at the 37th E. street end has at least 5 active adult beavers in addition to any new kits that may have been conceived this winter. The evidence of current beaver activity is very observable at the lake side by their wood chewing activity. The beavers at the 37th E. lodge are seen by children and adults on a regular basis. This particular lodge is an essential connection between the Madison Park Community's and native wildlife. Even though beavers in general are not classified as protected species under the Environmental Protection Act, these beavers are unique in an urban setting and should NOT be considered in the general class of beavers in other parts of the State of Washington. By giving consideration to the uniqueness of these particular beavers and the purposes of the Environmental Protection Act, the beavers at the 37th E. street end should be dealt with as if they are protected species.
The 520 EIS should analyze the impact of construction on these unique beaver lodges

used data from the Draft EIS and the SDEIS referenced the results of the HIA.

In general, the HIA recommended potential measures that could be incorporated to improve the region's overall quality of health, rather than attributing specific health outcomes to the project itself. It noted that many measures already included in the SR 520 project (e.g. bicycle/pedestrian paths, lids, urban design elements) would improve walkability, bicycling, and transit access in the project area, thereby providing general health benefits.

Human health issues were one of the stated purposes in the National Environmental Policy Act of 1969. Scientific knowledge of the interactions between people and the environment has increased since the Act was first passed, and these advancements have been reflected in the evolution of the scope and analyses of impacts that are included in EISs. While there is rarely a section entitled "Human Health Impacts" in an EIS, protecting human health is one of the reasons behind many of the studies conducted in the preparation of an EIS.

While construction of the project would involve temporary closures to some bicycle and pedestrian trails, once completed it would improve opportunities for bicycle and pedestrian recreation by providing a bicycle/pedestrian lane across the floating bridge with connections to regional trails. See Sections 5.4 and 6.4 related to Recreation, of the Final EIS for further information on the recreation effects of the Preferred Alternative.

C-045-003

Effects from construction work bridges are included in Section 6.11 of the SDEIS and in the Ecosystems Discipline Report (Attachment 7 of the SDEIS).

C-045-005

and contain a plan to protect the beavers during the construction period.
The following questions need to be answered:

- How will their reproductive process be affected?
- Where could they build a new beaver lodge?
- How long will it take to construct replacement beaver lodges?
- Where and how will beaver exist as they are replacing the lodges?
- How will the destruction of the lodges affect the beaver population? For example their reproductive process, behavioral habits, susceptibility to disease?

There is NO discussion of these issues. There is NO discussion of mitigation.

C-045-006

Hazardous Material

Miller Street Landfill

The only site studied is the Arboretum Playfield. There is NO precise delineation of the Miller Street Landfill. Historical and anecdotal reports indicate a large area between the Arboretum and NMP was used as a landfill. The DSEIS cites a study (Ouet and Kiers, 2007) indicating methane gas was found. The precise location of their study is NOT cited or shown. When canoeing and kayaking through this area (south of the bridge) "air" bubbles rise to the surface therefore there is evidence of methane gas below the surface.

Sediments (page 36). Cited are two studies, 1992 and 2004, in Lake Washington and Portage Bay. The text states these studies indicate there are relatively low concentrations of PCB's, PAH's, and phthalates. There is NO indication of where these sites are. These two studies are NOT consistent with a study carried out by Canterbury Shores. The following indicates the CS study results:

The water sample was collected in a container provided by AMTEST Laboratories following their directions. It was delivered to AMTEST on October 4, 2002. The sample was analyzed by AMTEST and the results reported to us on October 24, 2002.

Diesel and Heavy Oil were found in significant quantities, as follows:

Diesel	*1,500 parts per billion (ppb)*
Heavy Oil	*5,700 ppb*

In both cases the EPA minimums, or clean up standards, according to AMTEST, are 1,000 ppb. Therefore, both diesel and heavy oil exceed the EPA minimums, the latter by a considerable amount.

The SDEIS does NOT state how the extent and type of hazardous material will be dealt with in the area extending between the western edge of the Arboretum to the eastern edge of NMP.

C-045-007

Land Use, Economics and Relocation

No barges would be used on the south side of Portage Bay bridge because they cannot access this area. In addition, boats and barges would be required to stay within the construction limits area. In general, barges would be used in deeper portions of the project site (more than 20 feet deep), and would periodically move as construction progresses.

The effects from construction, including temporary work bridges, and barges are discussed in Chapter 6 of the Final EIS, and the "How would construction effect wetlands?" section of the Ecosystems Discipline Report Addendum in Attachment 7 to the Final EIS. In addition mitigation has been included for effects from construction, refer to the Conceptual Mitigation Report in Attachment 9 to the Final EIS.

C-045-004

Great Blue Heron are state priority species by WDFW, but are not listed under ESA. There are no known heron rookeries in the project area.

On page 4-62 of the Ecosystems Discipline Report (Attachment 7 of the SDEIS) it states that removing trees in forested areas and filling wetlands, particularly in the Washington Park Arboretum, would reduce cover and/or foraging habitat for western grebes, great blue herons, hooded mergansers, wood ducks, band-tailed pigeon, and pileated woodpeckers.

C-045-005

One beaver lodge adjacent to Foster Island would be affected by the project. Beaver are an urban adapted species, they are not an ESA listed species, nor a state priority species. WSDOT is not required to provide mitigation for lost habitat.

C-045-007

Estimated Construction Time. The DSEIS states construction time in the NMP vicinity will be 54 months (4.5 years). In numerous meetings with WSDOT personnel they have stated construction time will be between five to seven years. Therefore the SDEIS appears to be in ERROR.

C-045-008

Value Impacts. There is NO discussion in the SDEIS about the affect construction or the permanent operation will have on the value of property in the SR520 corridor.

C-045-009

Noise

With tolling the amount of traffic on 520 will be less than without tolling in any of the four cases (No Build, etc). Consequently vehicle speeds will be greater. Therefore the noise level will be greater. This relationship is NOT stated in the SDEIS.

C-045-010

Mitigation is required for residential areas if exterior noise levels are greater than 67dBA based on federal Noise Abatement Criteria (NAC). The following are the forecast noise levels (page 32):

Canterbury Shores, Monitoring Location 35, 65 dBA
Edgewater, Monitoring Location 36, 66 dBA.

Statistically there is no significant difference between 65, 66 & 67 dBA. This is especially true given the variability in measurements [time of day, weather, height of receiving location such as building story (Canterbury Shores is a four story building), person doing the measuring, the objectivity with which the measurements were taken (for example, the noise experts were not retained by an impartial entity but rather by WSDOT), etc.].

Throughout the DSEIS when dealing with noise mitigation and in particular noise walls, which are the only feasible type of noise mitigation strategy for NMP, it does NOT state noise walls will be constructed, rather it states they are "recommended." History shows that at the end of a construction project when funds are minimal or lacking the "recommended" items are frequently NOT provided.

C-045-011

There is a significant INCONSISTANCY between WSDOT maximum noise levels and those of the City of Seattle and Washington State Labor and Industries.

- For Seattle:
  - Maximum sound level between 7:00am and 10:00pm is 55 dBA. This would be for the permanent operation;
  - The maximum exceedence during construction for heavy equipment is 25 dBA;
  - Therefore, the total maximum noise level for the 54 month construction period during any day would be 80 dBA (80 dBA is "moderately loud" and equivalent to standing within two feet of an operating garbage truck).
- For WA. Labor and Industries:
  - Noise cannot exceed 85 dBA over an 8 hour period. (WAC 296-817-300).

C-045-006

As discussed on pages 24, 36, and 40 of the Hazardous Materials Discipline Report (Attachment 7 to the SDEIS) methane gas is not expected to exist at the Miller Street Landfill in significant amounts and the historic landfill poses a low environmental health risk.

As noted in page 35 of the Hazardous Materials Discipline Report, peat bogs also produce methane gas, not necessarily from landfill material. Based on age of landfill and King County study conducted, there is a low risk of methane gas being produced at explosive concentrations. Page 35 of Hazardous Materials Discipline Report acknowledges that the exact boundaries of the Miller Street Landfill are not fully delineated.

Information about previous sediment data in Lake Washington is presented in Attachment 4 of the Hazardous Materials Discipline Report. The 2002 data cited by Canterbury Shores is a water sample which is not applicable to sediment quality. Page 40 of the Hazardous Materials Discipline Report acknowledges that existing sediment quality data is limited and the samples were not collected from area directly impacted by construction, the risk of encountering contaminated sediments during construction is unknown.

C-045-007

Chapter 3 of the SDEIS acknowledged that information presented was WSDOT's best current estimate of how, and in what sequence, the project would be built. Within the overall construction period, areas of the corridor would be affected for varying amounts of time. Construction time frames for the Montlake interchange and west approach would differ among the options evaluated in the SDEIS. An updated construction schedule for the Preferred Alternative has been included in Chapter 3 of the Final EIS. Also see the Social Elements Discipline Report Addendum for updated information regarding construction durations and effects by neighborhood.

C-045-011

There is NO mention of pile driving noise in Exhibit 23, page 64. This is a serious OMISSION because in Exhibit 22 it shows that pile driving results in the most serious noise levels of all equipment and ranges between 99 to 105 dBA.

Exhibit 26, page 67 and 68, shows pile driving noise level profiles. This exhibit is INCORRECT. The exhibit DOES NOT include the area where the temporary bridge is to be built. Even with this ERROR WSDOT's noise profile exceeds City of Seattle and WA L&I maximum noise limits. This is a serious OMISSION. Your documents show that 2042 piles will be driven (Table 6.7.1) over the 54 month period. Exhibit 8, page 26 is a table showing relative loudness. The reference point is 80 dBA, the noise a garbage truck makes when one is standing within two feet of it and this is not with an idling engine. 100 dBA is 4 times louder, the equivalent to a jet taking off. 100 dBA is classified as "very loud." Interestingly, the noise effects on fish and mammals are discussed, they are NOT discussed regarding humans.

Exhibit 31 (approximately page 85). Noise Levels. The following are the noise levels listed for NMP without sound walls: MP1-66, MP2-67, MP3-67, MP4-67. All of these are right at NAC maximums and exceed City of Seattle maximums of 55 dBA. Given that, Exhibit 33 is MISLEADING for it is based on the assumption of sound walls. This is a "best case" scenario and extremely unlikely as sound walls are optional, not required. Due to a lack of funds and WSDOT prior statements, it is more likely than not that sound walls will NOT be constructed in the NMP segment. The SDEIS states regarding mitigation:

- "measures must be considered;"
- "mitigation measures … must be recommended (page 107).

This is NOT the same as requiring mitigation measures to reduce noise levels to an acceptable level.

OMMITTED from the noise section is how the "beep beep beep" of construction vehicles and equipment, when they back up, is quantified. According to a person I interviewed who lived on Mercer Island, in close proximity to the I-90 project, the "beep beep beep" was so annoying that they had to move. And, it was something that went on for 24 hours per day, often 7 days per week. If one has to listen to this for 54 months from 7:00am to 10:00pm it would, indeed, be annoying. It would be more than annoying for 24 hours per day, seven days per week. Based on my review of the DSEIS this noise is not dealt with, it is therefore an OMISSION. If it is dealt with please provide the reference or documentation.

Vibration

Reference page 69, Vibration Effects. The DSEIS states it is: "Unlikely that vibration levels would exceed 0.5 inches per second at a distance greater than 100 feet from the construction site." This is INCORRECT.

- First, there is NO quantitative data provided showing vibration levels were based on the tests WSDOT did;
- We know WSDOT did tests for two reasons:

C-045-008

Research indicates the impacts of a transportation project on property values cannot be calculated with certainty, since property values fluctuate constantly based on a wide variety of factors, including the general national, state and local economies. Proximity of a property to a newly constructed roadway is one factor that may have an effect on the value of the property. However, it is not possible to quantify these potential effects with any certainty. Some properties may be negatively affected, while others will benefit from the reduction in congestion that will be provided by the new roadway.

C-045-009

Page 53 of the Noise Discipline Report (Attachment 7 to the SDEIS) noted that "traffic noise levels increase with increasing traffic speed." The noise analyses conducted for the Draft EIS, SDEIS, and Final EIS modeled future traffic noise levels using the posted speed limits in the project corridor. Because the actual travel speeds are projected to be lower, noise-level projections are considered conservative. Thus, future noise levels may be lower than those described in the analyses when there is congestion. In response to public and stakeholder comments, the Preferred Alternative includes a reduced speed limit on the Portage Bay Bridge which would result in reduced noise in that area compared to the SDEIS design options. See the Noise Discipline Report Addendum (Attachment 7 to the Final EIS) for further information regarding how traffic speeds were accounted for in the noise analyses.

C-045-010

Since publication of the SDEIS, WSDOT has identified a Preferred Alternative which is similar to Option A, but with a number of design refinements. Chapter 2 of the Final EIS describes the Preferred Alternative and its noise reduction features. Additional noise analysis was conducted for the Preferred Alternative and the results indicated that predicted noise levels under the Preferred Alternative would be lower

C-045-011

1. We gave WSDOT permission to place a "vibration meter" on our property and we accompanied the person who placed it there;
2. We witnessed and experienced the tests, both putting in the piles and taking them out (both which will occur as a part of the WSDOT construction activity).

Page 61 contains a table that shows the effects of various vibration levels and it states: the "threshold at which there is risk of architectural damage to normal dwellings – houses with plaster ceiling and walls." This is at a vibration level of 1.27 or greater. Management and residents at Canterbury Shores experienced the pile driving noise and vibration level tests.

- Regarding pile driving: it is highly likely that the levels for pile driving exceeded 1.27. During the tests there were many complaints about the noise levels to CS management.
- For pile removal there is no doubt they exceeded 1.27. Homeowners stated that objects on counters and shelves "jumped around." In fact, vibration was so bad numerous governmental agencies were contacted, including WSDOT. Exhibit 1 shows the e-mails that resulted.

Vibration Mitigation (page 172).

This discussed how noise might be mitigated. There is NOTHING on vibration mitigation. This is an OMISSION.
The SDEIS states there is "no effective method to reduce vibration." (page 174). If it can't be reduced how can "it be kept to a minimum."?

If noise and vibration levels are above legal limits what can be done? "Vibration monitoring" (page 61) will NOT cure the problem.

C-045-012

Noise and Vibration, Pile Removal.

The noise and vibration material deals with the 2042 piles that will be driven over the 54 month construction period. It does NOT deal with the process of removing the piles and the noise and vibration that will result from the removal process. This is a serious OMISSION for the experience at CS indicates that the noise and vibration resulting from the removal of the piles is much greater than driving them. We have also discovered that if piles cannot be removed through extraction (pulling them) they are cut off at the lake bottom. The DSEIS does not deal with the debris that remains, for example the creosote laden piles. This is a serious OMISSION, especially due to the remaining hazardous material.

C-045-013

Recreation

OMITTED from the SDEIS is an analysis and discussion of the effect of the temporary construction bridge to the south of the existing alignment and bridge on boat access to NMP water frontage property. The temporary bridge, barges and working boats will severely and/or completely make ingress and egress impossible.

than those under the No Build Alternative in the North Madison Park area (see the Noise Discipline Report Addendum in Attachment 7 to the Final EIS). Noise wall locations have been recommended based on anticipated noise levels and reasonableness and feasibility criteria at receiver locations near the project; however, with the proposed noise reduction strategies no residences would exceed the noise abatement criteria in North Madison Park and therefore noise walls are not recommended in this location. See the Noise Discipline Report Addendum for information on how these recommendations were made.

After this Final EIS, FHWA will issue their Record of Decision (ROD) under NEPA for the project. The ROD will document the course of action that FHWA has decided upon as the federal lead agency and will also explain how the lead agencies plan to implement mitigation measures and conservation actions in compliance with NEPA and other laws. WSDOT, as a co-lead agency, will be committed to undertaking mitigation measures by the ROD. After the ROD is issued, WSDOT will work with neighborhood property owners to determine whether they want the recommended noise walls.

C-045-011

Please see the response to Comment C-045-010 for information on how WSDOT's implementation of noise mitigation measures is ensured. WSDOT, as a Co-Lead Agency for the project, will be a signatory party to the NEPA Record of Decision that FHWA issues, which will require WSDOT to implement mitigation.

Pages 56 through 59 of the Affected Environment section of the Noise Discipline Report for the SDEIS characterize noise code requirements in place at the time the SDEIS was written and the noise levels triggering the need for mitigation. The Noise Discipline Report Addendum discusses the recently adopted noise code requirements for the City of Seattle. During construction, WSDOT will comply with the noise

C-045-014

Transportation

OMITTED. An analysis of the effect on traffic at the Lake Washington Blvd and Madison Street intersection.

C-045-015

View

Volume I.

Regarding the West Approach Landscape Unit. This OMITS the view affect on NMP homes (page 57). It MISSTATES how NMP views would be permanently affected: "possibly blocking views of Laurelhurst Hills but revealing more open water in Union Bay." (page 70). See the following comments under Volume II.

Volume II.

Exhibit 2-17 and 2-18 show existing and Option A (and the 2 other options also) views. Both exhibits are MISLEADING due to the INCORRECT way the photographs were taken (using an incorrect camera lens that does NOT show what the eye actually sees). Exhibit 2 shows what the view will actually be like from the north shore of NMP on a before and after basis. Exhibit 3 shows what the views will look like from the Madison Street pier, at the east end of Madison Street. These two exhibits were prepared by a professional photographer, Mr. Aaron Weholt, Legal Media, Seattle, WA.

C-045-016

Water Resources

Referencing Page 69. OMISSION. There is no discussion of how the south one-half of the bridge, the east-bound lanes, would be constructed. Also OMITTED is a discussion of the temporary construction bridge that will be located south of the east-bound lanes.

C-045-017

Construction Activities, Chapter 3, 1/5/2010.

The are NO graphics shown and there are NO specifics on the construction bridge to be located south of the current and new east-bound lanes. The purpose of this "construction bridge" is to demolish the existing bridge and build the new east-bound lanes. The construction time period, according to the SDEIS, is 4.75 years. This time period may be IN ERROR as WSDOT staff have indicated it will be between five to seven years. This is a very significant OMISSION for the construction affects from noise, vibration, view blockage and water access will be huge.

Project Operation and Permanent Affects (Chapter 5).

C-045-018

Noise.

requirements of the City in which the project is located. For this project, that would be the applicable noise requirements for the Cities of Seattle, Medina, Clyde Hill, Hunt Point, and Bellevue.

For updated information on anticipated construction and operational noise levels, see the Potential Effects Section of the Addendum to the Noise Discipline Report (Attachment 7 to the Final EIS). Operational noise levels are anticipated to be lower than those described for Option A in the SDEIS for the North Madison Park area.

Evaluating and managing noise related to construction is an ongoing process for WSDOT that only ends when construction ends. As with other large scale public WSDOT projects, the details of construction methods, staging areas, and other project related issues will be considered further during final design. The SDEIS and Final EIS discussed construction noise to the extent possible based on conceptual design information. The evaluation conducted through the NEPA/SEPA process was intended to identify whether there would be any likely noise effects and whether mitigation measures would be available to address those effects. Once a final alignment is identified, the job awarded to the construction a contractor, and construction methods finalized, all aspects of noise related to construction will be further evaluated. The construction noise levels presented in the Final EIS are the worst case predicted noise levels that would only be expected during the heaviest construction periods, when the activities are nearest sensitive properties. Actual construction noise levels would vary with activity and would typically be lower than those presented.

C-045-012

The use of equipment for removing piles is accounted for in the discussion of construction noise effects. See the Noise Discipline Report Addendum (in Attachment 7 to the Final EIS). If possible, piles would be removed by pulling or vibrating them out of position; however, pile

C-045-018

The SDEIS states "WSDOT's practice is to work with the owners of these properties (those where "noise abatement measures must be considered") during detailed project design to determine the mitigation measures that will be used." (page 5-104). No one from WSDOT, or any other public agency, has discussed this matter with CS management or owners. This is an OMISSION.
As was stated earlier, there is NO assurance of mitigation. Noise walls are the only mitigation proposed for NMP. All options state: "If noise walls are included …" (page 5-107). This is NOT as assurance that noise will be mitigated.
North Madison Park is NOT mentioned for noise mitigation. (page 5-109 and 5-110).

C-045-019

Wildlife and Habitat.

Referencing the sentence "Remove a large beaver lodge …" (page 5-140). There are at least three (3) beaver lodges in or in very close proximity to the 520 right-of-way in the arboretum. The SDEIS graphics DO NOT identify where any are located. There is NO scientific analysis or discussion of the effect construction will have on the beaver population

There are NO mitigation measures for wildlife. (page 5-146).

C-045-020

Navigation.

There is NO discussion on how navigation would be affected north of NMP and south of 520 during construction or permanently. (page 5-151).

C-045-021

Effects During Construction (Chapter 6).

There is either NO or ONLY superficial discussions of construction affects on NMP regarding boat access, noise, vibration and wildlife. (page 6-46 to 6-49). Also, see the above comments relating to the Discipline Reports.

C-045-022

View Impact.

In Chapter 6 it states: "*Under all design options, the greatest temporary change to visual character and quality would result from demolition of the Lake Washington ramps to and from the Arboretum and construction and presence of construction and detour bridges because of their size and complexity. Vegetation would be removed in 30- to 60-foot-wide swaths for the work bridges. Subsequent construction of the permanent new west approach bridges would compound the effects. The combination of the construction bridges, detour bridges, finger piers, and the existing and new bridges would result in substantial degradation of visual character and quality of the south part of Union Bay. The structures would block water- and ground-level view for viewers near the structures. The viewers most affected by this change would be commuters crossing the bridges, park users and boaters, and residents in north Madison Park (underline mine). Views from the Broadmoor Golf Course would be screened most of the year by tall trees along the shoreline.*" (page 6-54 and 6-55). This statement:

removal is not anticipated to be noisier than pile installation. If a pile cannot be removed, it will be cut off at or just below the mudline.

C-045-013

To facilitate unobstructed boating access to Canterbury Shores Condominiums, the location of the temporary work bridges in this area have been adjusted. Please see Exhibits 10a-10i of the Construction Techniques and Activities Addendum (Attachment 7 of the Final EIS) for a depiction of approximate location of the work bridges that would be used to construct the west approach of the new floating bridge.

C-045-014

The limit of intersection analysis was determined by looking at the change in traffic volumes on the local streets and including those intersections where traffic volumes increased more than 5 percent between the No Build and Preferred Alternatives. Five percent was selected as the criteria because a change in traffic of that amount typically results in measurable operational changes. If traffic volume increases were less than 5 percent, the adjacent intersection was not included in the analysis. In other words, for any intersection beyond those studied, the overall change in traffic volumes through that intersection during the a.m. and p.m. peak hours was less than 5 percent. Traffic volume changes of less than 5 percent are within the daily fluctuation and are not considered an effect of the project.

C-045-015

Because there are more views in the project area than could be modeled, viewpoints are carefully selected to capture typical, representative views. Exhibit 2-17 of the Visual Quality and Aesthetics Discipline Report is representative of the views from the north shoreline of Madison Park. As can be seen in this exhibit, the view under the new bridge extends farther across the water than the view of the existing

C-045-022

- Is inconsistent (an ERROR) with your statement regarding views (Views, Volume I, page 70) where it states: "*possibly blocking views of Laurelhurst Hills but revealing more open water in Union Bay.*"
- Does NOT discuss mitigation, an OMISSION.

C-045-023

Noise. (re: page 6-65+)

The following is relevant information and comments from several tables in this section:
Table 6.7.1: Equipment – Pile Drivers, Noise Level – 99-105 dBA, Number of piles to be driven: 1987 + 55 for Lake Washington Blvd or 2042 piles total.
Table 6.7.2: Maximum City of Seattle sound level, residential – 55 dBA.
Table 6.7.3: Maximum Exceedence:

Minutes/hour	Exceedence
15	+5 dBA
5	+10 dBA
1.5	+15 dBA

For driving in and pulling out the 2042 pilings (that is 4084 operations) the maximum noise criteria for the City, State, and federal government (NAC) will be exceeded. What is the effective mitigation? The answer to this has been OMITTED.
Table 6.7.4.:Noise Levels that "should NEVER be exceeded."

dBA	Time Duration Exceedence Prohibited
90	Continuously*
93	20 minutes
96	15 minutes
99	7.5 minutes

*I believe this is an error, for it means at 90 dBA or greater the noise level cannot be exceeded.
Therefore, if any piles are driven the noise levels will be exceeded. But, this must NEVER happen. What is the answer to this dilemma? It has been OMITTED.
In addition, just so we are on the "same page," don't suggest these noise levels will not reach NMP. First, your noise profiles do not take into account the construction bridge. Second, they do not take into account pile removal. Third, they do not take into account the vibration index.

Vibration (reference page 6-69).

Data and analysis on vibration testing has been OMITTED.
Reference "Construction Vibration Effects" page 6-69. In the middle of the paragraph it states "*It is unlikely that vibration levels would exceed 0.5 inches per second at distances greater than 100 feet from the construction sites.*" In that regard:

- Distances from the construction bridge have been OMITTED;
- Data and analysis has been OMITTED regarding vibration tests and levels;
- Based on the experiences at Canterbury Shores regarding driving and pulling piles the vibration level exceeded 1.27 inches per second. This data and the effects have been OMITTED.

bridge. Exhibits 2-19 and 2-20 illustrate the view from Laurelhurst and show the north Madison Park shoreline.

It is an accepted industry standard to use the focal length used for these images (roughly 35 mm depending on the camera) because the view is wide but without distortion at the outer edges. The SDEIS visualizations were created by graphics artists who specialize in creating 3-D models based on engineering designs and placing the 3-D models in photographs.

Please also refer to the Potential Effects section of the Visual Quality Discipline Report Addendum (Attachment 7 to the Final EIS). The Potential Effects section discusses view effects from the Preferred Alternative in the West Approach Landscape Unit to residents of the Canterbury Shores Condominiums. The Addendum includes a visualization of the Preferred Alternative taken from the same location used for the SDEIS, as a representative viewpoint. The Visual Quality Discipline Report Addendum describes how viewpoints were chosen for each of the landscape units.

C-045-016

Since publication of the SDEIS, WSDOT has identified a Preferred Alternative which is similar to Option A but with a number of design refinements. See Chapter 2 of the Final EIS for a description of the planning process and the Preferred Alternative.

C-045-017

Effects from construction bridges are discussed throughout the SDEIS, including Sections 6.3, 6.5, 6.11, and 6.14. Exhibit 3-14 and 3-15 in the SDEIS illustrates the location of the construction work bridge. The SDEIS also acknowledged that the work bridges would be constructed in a manner similar to those in the Portage Bay area and would be in place for 3 to 6 years, and vary depending on location.

C-045-023

- Due to the poor quality of graphics in Exhibit 6.7-3 (at least on my CD), it is not possible to tell where the noise contours are in relation to the land (i.e. shoreline, land improvements, etc.). This must be an ERROR.

Respectfully submitted,

Bill Mundy. Mary Ann Mundy

Attachments: Exhibits 1, 2 & 3.

Exhibit 3-11 in the Final EIS illustrates the location of the construction work bridge in the West Approach area for the Preferred Alternative. See Chapter 3 of the Final EIS for a description. For updated information regarding construction effects of the Preferred Alternative, see Chapter 6 of the Final EIS.

C-045-018

See responses to comments C-045-010 and C-045-011. Noise walls were recommended for Madison Park with the SDEIS design options. Noise reduction strategies have been designed into the Preferred Alternative as described in Chapter 2 of the Final EIS and North Madison Park is not expected to experience noise levels that would warrant noise mitigation per se, such as noise walls. Therefore, noise walls are not recommended for the North Madison Park area with the Preferred Alternative. See the Noise Discipline Report Addendum (Attachment 7 to the Final EIS) for discussion of why noise walls are and are not recommended in specific areas.

C-045-019

Please see the response to Comment C-045-005.

C-045-020

The stated concern regarding construction effects is addressed in the Navigable Waterways Discipline Report. Construction effects are described on pages 44 and 45, under the headings Lake Washington South of the Evergreen Point Bridge and Evergreen Point Bridge West Navigation Channel. Operation effects are described on pages 47 to 49 of that document, under the heading Lake Washington South of the Evergreen Point Bridge.

Chapter 3 of the SDEIS provides further information on work bridges and

EXHIBIT 1 a

From: "McCaffree, Justin (Consultant)" <McCaffJ@consultant.wsdot.wa.gov>
Date: November 9, 2009 2:59:42 PM PST
To: "Bill Mundy" <bill@mundyfarms.com>, "Warner, Dave (Consultant)" <WarneDa@consultant.wsdot.wa.gov>
Cc: <donwand@comcast.net>, "French Bruce" <brucef@bca-online.com>, "John Miller" <johnm@cdcmanagement.com>, "Samuel Jim" <sgllc1@nwlink.com>
Subject: RE: SR 520 In-Water Test Pile and Noise Study: Noise Monitoring

Mr. Mundy,

Thank you very much for bringing this concern to our attention. I will make sure that the appropriate project staff are made aware of this issue.

Justin McCaffree
Communications, SR 520 Bridge Replacement and HOV Program
Washington State Department of Transportation
206-269-5041
101 Stewart Street, Suite 1200 I Seattle, WA 98101
<http://www.wsdot.wa.gov/projects/sr520bridge/>

From: Bill Mundy [mailto:bill@mundyfarms.com]
Sent: Mon 11/9/2009 2:47 PM
To: McCaffree, Justin (Consultant); Warner, Dave (Consultant)
Cc: donwand@comcast.net; French Bruce; John Miller; Samuel Jim
Subject: SR 520 In-Water Test Pile and Noise Study: Noise Monitoring

Justin. A very short while ago, probably within the last 1/2 hour, your noise study folks (big barge on north side of bridge, possibly General Construction) did some vibration testing. This was VERY noticeable here at Canterbury Shores (floors shook, our lights and china clattered). This is very disconcerting for several reasons: (1) the foundation of CS is supported by pilings and much of this area was an old landfill therefore the vibrations could cause settling (2) settling will cause cracks in wallboard, brick mortar, etc. (3) the vibration is so great that we will need to take things of value off open shelves and counter tops (I know there are several residents here that have significant collections of blown glass). I can understand your desire to do these tests, but it would be prudent to "tone them down" significantly. Thank you.

Bill Mundy Ph.D., MAI
2500 Canterbury Lane E. #301
Seattle, WA., 98112.

barges. Work bridges would be used to construct the new bridge in the West Approach area. Exhibits 3-14 and 3-15 of the SDEIS show the eastern extent of work bridges and how long they would be located in these areas. East of that (for the floating bridge) construction would be staged from barges. The barges would be located within the limits of construction shown on Exhibits 3-14 and 3-15. Work bridges and barges would not be expected to affect access to docks in north Madison Park; however, access to some Arboretum shoreline areas would be prohibited during construction.

The effects of the Preferred Alternative are described in the Navigable Waterways Discipline Report Addendum (Attachment 7 to this Final EIS) and would be similar to those described for Options A, K, and L in the Navigation Discipline Report. Additional effects to navigation channels between the Evergreen Point Bridge and the north Madison Park area would not be expected. For discussion of effects on recreational boating, see the Recreation Discipline Report Addendum (Attachment 7 to this Final EIS). Also see Chapter 3, Construction Activities, in the Final EIS.

C-045-021

Effects found to be specific to a site or area are called out as such. The statements in the SDEIS regarding construction effects were applicable to the North Madison Park area as well as other areas. For a detailed discussion of construction effects, please see Chapters 3 and 6 of the SDEIS and Final EIS, as well as the Construction Techniques and Activities Discipline Report and Addendum (Attachment 7 to the Final EIS). The Final EIS includes updated information on construction effects of the Preferred Alternative.

The stated concern regarding construction effects is addressed in the Navigable Waterways Discipline Report. Construction effects are described on pages 44 and 45, under the headings Lake Washington

EXHIBIT 1 b

From: "McCaffree, Justin (Consultant)" <McCaffJ@consultant.wsdot.wa.gov>
Date: November 9, 2009 3:19:52 PM PST
To: "Bill Mundy" <bill@mundyfarms.com>
Cc: "Brandt, Sarah (Consultant)" <BrandtS@consultant.wsdot.wa.gov>
Subject: RE: SR 520 In-Water Test Pile and Noise Study: Noise Monitoring

Mr. Mundy,

I spoke with the on-site construction inspector who informed me that the vibration you felt occurred as crews were attempting to remove the final test pile using a vibratory hammer. Crews were unable to remove the pile using this method, and will instead have divers on-site tomorrow to cut the pile off below the mud line.

I have to leave the office today at 3:30 and will be out for the remainder of the afternoon, but should you have any other questions or concerns, please feel free to contact Sarah Brandt, SR 520 Environmental Communications, at brandts@consultant.wsdot.wa.gov.

I apologize for the inconvenience and thank you again for bringing this to our attention.

Justin McCaffree
Communications, SR 520 Bridge Replacement and HOV Program
Washington State Department of Transportation
206-269-5041
101 Stewart Street, Suite 1200 I Seattle, WA 98101
<http://www.wsdot.wa.gov/projects/sr520bridge/>

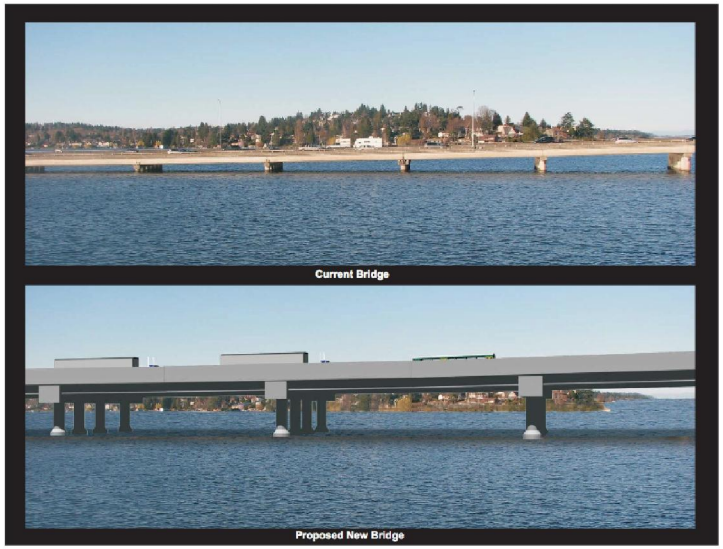
South of the Evergreen Point Bridge and Evergreen Point Bridge West Navigation Channel. Operation effects are described on pages 47 to 49 of that document, under the heading Lake Washington South of the Evergreen Point Bridge. The effects of the Preferred Alternative are described in the Navigation Discipline Report Addendum (Attachment 7 to this Final EIS) and would be similar to those described for Options A, K, and L in the Navigation Discipline Report. Additional effects to navigation channels between the Evergreen Point Bridge and the north Madison Park area would not be expected. For discussion of effects on recreational boating, see the Recreation Discipline Report Addendum (Attachment 7 to this Final EIS).

C-045-022

Please note that the quotation from Chapter 6 is referring only to construction effects. The statement on page 70 is referring to permanent visual changes due to the presence of the completed facility. Mitigation for visual effects is at the end of the discipline report in a section dedicated to mitigation options. Mitigation options for this landscape unit during construction was discussed on Page 6-57 of the Visual Quality and Aesthetics Discipline Report, and that discussion for the Preferred Alternative can be found in the Mitigation section of the Visual Quality and Aesthetics Discipline Report Addendum (Attachment 7 to the Final EIS).

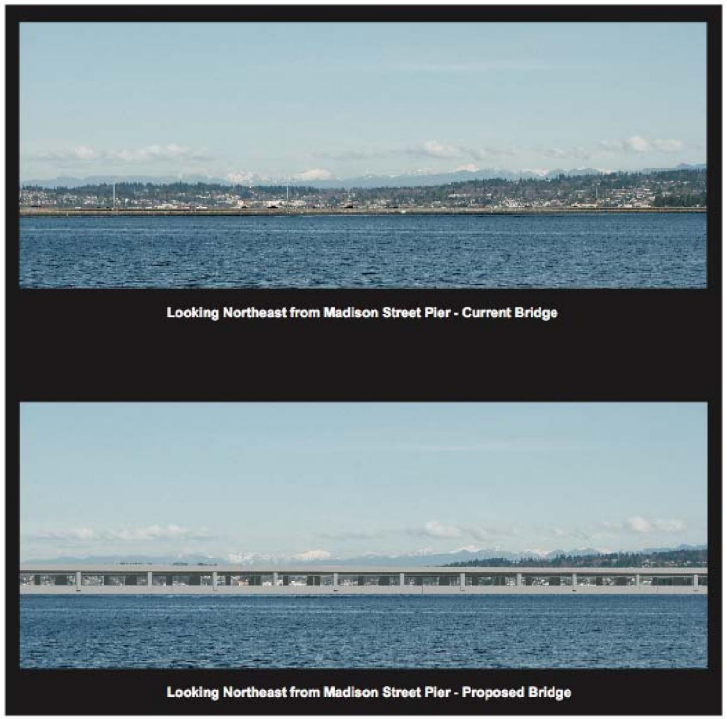
C-045-023

The Potential Effects section of the Noise Discipline Report Addendum (in Attachment 7 to the Final EIS) clarifies information on construction noise levels that was provided on pages 56 through 59 of the Noise Discipline Report for the SDEIS. The Potential Effects section of the Noise Discipline Report Addendum (Attachment 7 to the Final EIS) clarifies information about construction noise levels that was provided on pages 56 through 59 of the Noise Discipline Report.



Pile driving noise would occur only for limited durations during the construction period, and the referenced exhibit presented peak levels. WSDOT will comply with the applicable City of Seattle regulations, and other state and federal permits and approvals obtained for construction to manage pile-driving activities. Complying with the City noise ordinance may involve obtaining a noise variance for activities that would not meet the noise standards. That variance, if needed, would apply specific noise limits and durations to various construction activities including pile-driving. WSDOT will employ best management practices during construction to minimize noise generated from pile-driving.

Post-construction noise in the SR 520 corridor associated with the project would be traffic noise. Traffic noise is exempt from the City of Seattle Noise Code. However, with the noise reduction strategies that included in the Preferred Alternative, overall traffic noise from the SR 520 corridor, and the number of residences where noise levels would exceed FHWA's noise abatement criteria in the Portage Bay area, would be reduced compared to the No Build Alternative. Several noise-reducing technologies recommended by the Expert Noise Review Panel in 2008 are included in the Preferred Alternative, such as noise-absorptive traffic barriers, noise-absorptive materials around lid portals, and a reduced speed limit. Quieter concrete pavement is included as a design feature for Option A, Option K, and the Preferred Alternative; however, because it is not an FHWA-approved mitigation measure and because future pavement surface conditions cannot be determined with certainty, it is not included in the noise model for the project.
Please see Section 6.7 and the Noise Discipline Report Addendum for a discussion regarding potential vibration effects.



Looking Northeast from Madison Street Pier - Current Bridge

Looking Northeast from Madison Street Pier - Proposed Bridge