



## Arboretum and Botanical Garden Committee Meeting Summary

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Wednesday, May 12, 2010, 9:30 to 10:30 a.m.

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Julie Meredith, SR 520 Program Director
- Michael Horntvedt, SR 520 Transportation Manager
- Kerry Ruth, I-5 to Medina Project Engineering Manager
- Jenifer Young, I-5 to Medina Project Environmental Manager
- Katie DeLeuw, SR 520 Program Environmental Communications

#### ABGC:

- Theresa Doherty, University of Washington, Assistant Vice President for Regional Affairs
- Sandra Lier, Vice-Chair and UW Botanic Gardens Director
- Paige Miller, Arboretum Foundation Executive Director
- David Graves, City of Seattle Parks Department
- Jack Collins, Mayoral Appointee

### Meeting overview

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The purpose of the briefing was to provide ABGC members with information about the preferred alternative, including the following topics:

- Background, getting to the preferred alternative – Julie Meredith.
- SDEIS comments and what we heard from ABGC – Jenifer Young.
- Detailed overview of preferred alternative – Kerry Ruth, Julie Meredith.

## Discussion of meeting topics

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### Montlake lid

- Theresa Doherty: How long is the proposed Montlake lid?
  - Julie Meredith: The Montlake lid is proposed to be 1400 to 1500 feet long. This exceeds the length originally planned for each lid (500 – 700) feet at which ventilation would not be required.
- David Graves: Will ventilation be required?
  - Julie Meredith: There would likely be some fans but additional analysis is needed to determine the type, size, etc. of the ventilation system. This is the trade off of the longer lid.
- Barbara Wright: How will bicycle and pedestrian traffic be able to cross the lid? The original design for the lid seemed to be more like a park, while this new proposed design seems more like green space between traffic lanes. It is important to the ABGC that the Arboretum remains accessible to all users.
  - Kerry Ruth: The lid design does include bike and pedestrian connections to the existing parks, and connects the Montlake neighborhood to the Arboretum.
- How many lanes of traffic are proposed on the north side of the lid?
  - Kerry Ruth: There would be four lanes of traffic total – two HOV and two general purpose lanes. A left turn lane is also included on a portion of the lid.
- Theresa Doherty: How will the function of the removed Montlake Flyer Stop be replaced?
  - Kerry Ruth: From the Eastside, transit users will need to decide whether to board a bus to the UW or to downtown Seattle at the Evergreen Point Road transit stop.

### Lake Washington Boulevard

- Will there be a traffic signal at Lake Washington Boulevard?
  - Yes. Drivers will be able to turn left or right on to Lake Washington Boulevard at a traffic light once they cross the lid.
- Will drivers be incentivized to use 23rd Avenue E. rather than Lake Washington Boulevard?
  - Julie Meredith: We will be coordinating with SDOT to develop traffic management plan for the Arboretum that would include traffic calming mechanisms and potentially a fee system for use of Lake Washington Boulevard from SR 520.

### Montlake bridge and triangle

- What are the two green spots on either side of the new bascule bridge?
  - Julie Meredith: These are meant to show that the two properties currently at those locations will need to be acquired.
- Theresa Doherty: Can you explain the concept being evaluated for the Montlake triangle area?
  - Julie Meredith: We are moving forward with the UW to help fund a portion of the Rainier Vista plan. The proposed design in this area includes lowering a portion of

Montlake Boulevard E. so that a grade-separated pedestrian crossing can connect over the roadway. This should improve bicycle and pedestrian connections in the area. We will continue to evaluate this concept through the legislatively-mandated workgroups.

### **Portage Bay bridge**

- Barbara Wright: Will WSDOT irrigate the planting strip on the bridge?
  - Kerry Ruth: The details of how the planting strip will be maintained are to be determined.

### **Traffic and transit**

- WSDOT should consider lowering the speed limit earlier rather than just between Montlake and I-5. As drivers travelling eastbound enter the Seattle side, it would be good to lower the speed limit through Marsh and Foster Islands so that the noise would be reduced in these areas as well.
  - Julie Meredith: This is still under discussion. We understand the difficulty in significant speed limit changes and may consider gradual reductions. We're also incorporate active traffic management mechanisms in this area. Also, to clarify, this project will not result in alleviated general purpose congestion. There will still be traffic and queues. The benefits will primarily be related to transit and HOV mobility.
- Paige Miller: It is very important to ABGC that WSDOT minimizes potential future impacts to the Arboretum when a light rail system is incorporated.
  - Julie Meredith: The proposed preferred alternative design includes a gap between the eastbound and westbound lanes so that the bridge would not need to be widened to accommodate potential light rail in the future.

### **Foster Island**

- Paige Miller: Can you describe how the proposed design crosses Foster Island?
  - Kerry Ruth, Julie Meredith: This area needs additional work. We hope to minimize impacts and provide pedestrian access during construction. The structure will have a constant slope, reduced toward Montlake. The profile at Foster Island will allow for permanent pedestrian access. We hope that the columns can be constructed far enough apart to span Foster Island but have not determined if this is possible yet. The west approach height was determined by balancing input from agencies and the public.
  - Julie Meredith: Additional work is needed with the tribes on both fishing rights and cultural resources. Now that we have identified a preferred alternative, we are beginning Government to Government consultation. We will not be able to further Foster Island discussions with the ABGC until we have clarified this with the tribes.

## Noise

- The majority of nearby residents don't seem to want noise walls – is this what you've heard?
  - Julie Meredith: Yes, this seems to reflect what we've heard. It is important to note that other noise features are also proposed as part of the preferred alternative. We are calling these features rather than noise reduction methods because they are not federally recognized methods for reducing noise.

## Coordinating on Arboretum mitigation

- Theresa Doherty: Rather than convening a separate group, it might be the most efficient for WSDOT to meet directly with ABGC regarding Arboretum mitigation. We can convene special meetings or dedicate full ABGC meetings to the SR 520 project as needed.
- The ABGC can provide more input and interact with WSDOT on this project rather than just be briefed.

## General input and questions

- Although it seems like there is still a ways to go with the design, WSDOT's sensitivity to ABGC's recommendations is appreciated.
- What are the current hurdles for the project? Are there currently any legal challenges?
  - Julie Meredith: There are currently no legal challenges. We plan to issue a final EIS in late 2010 or early 2011, and then the record of decision. The period of potential legal challenges would occur after these environmental milestones are completed.

## Requests and action items

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- The SR 520 team will meet with Barbara to confirm the coordination process with ABGC moving forward.
- The SR 520 team will return to the ABGC in June.
- Barbara Wright will gather questions and requests from the ABGC members in advance so that the SR 520 project team can be prepared to address these topics.



## Arboretum and Botanical Garden Committee Meeting Summary

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Wednesday, June 9, 2010, 8:30 – 9:45 a.m.

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Heather Catron, SR 520 Program Operations Manager
- Rob Berman, SR 520 Program Planning Manager
- Kerry Ruth, I-5 to Medina Project Engineering Manager
- Jenifer Young, I-5 to Medina Project Environmental Manager
- Katie DeLeuw, SR 520 Program Environmental Communications

#### ABGC:

- Barbara Wright, Chair and Arboretum Foundation President
- Sandra Lier, Vice-Chair and University of Washington Botanic Gardens (UWBG) Director
- Paige Miller, Arboretum Foundation Executive Director
- Jack Collins, Mayoral Appointee
- Theresa Doherty, University of Washington, Assistant Vice President for Regional Affairs
- Dave Towne, Washington State Governor's Appointee
- David Graves, Seattle Parks, Project Manager
- Donald Harris, Seattle Parks, Property Manager
- Fred Hoyt, UW Botanical Gardens, Associate Director
- Michael Shiosaki, Seattle Parks, Planning & Development Deputy Director
- Nancy Belcher
- Terry Dunning, City of Seattle Parks Department
- Sandy Brooks, ABGC coordinator

#### Public and other:

- Susan Black
- Sara Belz, City Council staff

## Meeting overview

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- Traffic management
- Mitigation
- Updates and next steps

## Meeting topics and associated comments/questions

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### ESSB 6392 workgroups and Arboretum mitigation plan

- Sandra Lier emphasized the word “enhance” in the legislation, which could be interpreted as including mitigation beyond what the regulations require.
- Paige Miller expressed interest in weighing in on the traffic management plan before it is complete. She is primarily concerned with traffic in and around the Arboretum. Rob stated that he plans to ensure information is shared between the various work groups.
- Nancy Belcher requested clarification on what is meant by “mitigation.” Rob explained that, to meet regulatory requirements, the team worked to avoid effects (as evident by the preferred alternative design) and is continuing to refine the design to minimize unavoidable effects. Remaining effects will be mitigated per environmental resource regulations.
- Paige Miller reemphasized her concern with traffic management and the ABGC’s role in designing a traffic management plan. Stephanie Brown suggested that the SR 520 team discuss this with Julie Meredith and Dave Dye. Paige requested the team walk the ABGC through the proposed traffic management plan at a future meeting. Rob agreed to address this at the July meeting.
- Nancy Belcher requested more detailed design and project footprint information; Rob agreed to provide this at subsequent meetings.
- Jack Collins requested information on noise from Lake Washington Boulevard at a future meeting.
- Barbara Wright suggested the group consider whether longer or more frequent meetings will be needed to discuss all the identified topics.

### ABGC’s guiding principles and SDEIS comments

Rob Berman led a discussion of ABGC’s guiding principles and primary topics addressed in SDEIS comments regarding the Arboretum, including Lake Washington Boulevard and ramps, noise, mitigation, bicycle and pedestrian connections, Foster Island. Comments included:

- Donald Harris emphasized the importance of traffic calming as the ABGC thought they would be coordinating more closely with SDOT on this.
- Rob Berman suggested the group also discuss the timing of various mitigation elements, specifically when they can be implemented.
- Nancy Belcher expressed a concern regarding effects to air and water quality.

## Agency coordination

Rob Berman provided an overview of

- Existing regulatory **agency coordination** processes – RACp/TWGs, separate Section 106 process (Rob).
  - Jack Collins commented on the process of working with the ABGC. He is concerned that WSDOT continues to give presentations rather than allow for discussions or working sessions. Rob agreed and explained that the team wanted to ensure that everyone is on the same page and has the same background at this first meeting. Subsequent meetings will be structured like working sessions and the team will be soliciting ABGC input on various components.
  
- Overview of **regulations** pertaining to Arboretum resources and mitigation – Sections 4(f), 6(f), 106, Clean Water Act 404 and 401, Seattle CAOs, FHWA noise abatement criteria (Jenifer).
  - Paige Miller asked if separate Section 4(f) analyses are conducted for effects from the SR 520 mainline and the ramps. Jenifer explained that they are evaluated holistically in terms of the resource being affected. Indirect effects such as traffic, noise and air quality are also evaluated.
  - Theresa Doherty clarified the process the Parks TWG has worked through to identify potential Section 6(f) replacement properties, starting from 87 potential properties. Replacement properties must be equal value and provide similar uses as the affected property. The UW and city of Seattle would prefer the replacement properties for affected Arboretum property is located near the Arboretum.
  - The group discussed the challenge in finding a large enough replacement property, what the waterfront trail would look like once the project is complete (restored) , the appraisal process for 6(f) properties and the overlap between 4(f) and 6(f).
  - Terry Dunning suggested distributing the Section 6(f) maps from the Parks TWG at the next ABGC meeting.
  - Paige Miller inquired about the amount of wetland fill anticipated. Jenifer explained that wetland fill will be less than a half-acre.
  - Jack Collins requested more information on how the height of the bridge affects Foster Island as he's heard conflicting opinions. Rob explained there are many factors and this can be subjective – this can be a discussion at the next meeting.
  - Nancy Belcher inquired about noise walls in the Arboretum – the SDEIS states that they are the only approved noise reduction method but are not reasonable and feasible in the Arboretum. Jenifer explained that noise walls for the Arboretum would not be cost-effective due to the cost of the noise walls and the number of benefitted users. However, the project team does anticipate discussing noise walls among other noise-reduction techniques for the Arboretum. Nancy requested the team evaluate transparent noise walls among other methods. The team will return with more information about potential benefits and noise-reduction options.

- Paige Miller suggested the team develop a physical 3D model of the preferred alternative for discussion. Other ABGC members supported this concept and thought Julie M. and Dave Dye had previously agreed to consider this. Rob and Heather agreed to discuss potentially developing a model.

## **Action items**

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- Provide handouts to Barbara Wright electronically – for the June meeting and in advance of future meetings.
- Return in July for a longer working session; be prepared to discuss:
  - Traffic management and potential ideas for traffic calming. (Paige requested a more detailed walk-through.)
  - Clarity on design and project footprint.
  - Resources and impacts in detail, including Section 6(f) impact maps per Terry's suggestion.
  - How the height of the bridge affects impacts to Foster Island – noise, wildlife, etc.
- Continue updating ABGC on the Section 106 process.
- Consider developing a preferred alternative 3D model.
- Ensure all future graphics include comparisons for existing, construction, project complete/operational.

## Arboretum and Botanical Garden Committee Meeting Summary

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Wednesday, July 14, 2010, 8:45 – 11:15 a.m.

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Rob Berman, SR 520 Program Planning Manager
- Kerry Ruth, I-5 to Medina Project Engineering Manager
- Jenifer Young, I-5 to Medina Project Environmental Manager
- Michael Horntvedt, SR 520 Program Transportation Manager
- Bruce Jamieson, I-5 to Medina Project Construction Specialist
- Katie DeLeuw, SR 520 Program Environmental Communications

#### Seattle Department of Transportation:

- Andrew Barash
- Luke Korpi

#### ABGC:

- Barbara Wright, Chair and Arboretum Foundation President
- Sandra Lier, Vice-Chair and UW Botanic Gardens Director
- Paige Miller, Arboretum Foundation Executive Director
- Jack Collins, Mayoral Appointee
- Donald Harris, Seattle Parks, Property Manager
- Fred Hoyt, UW Botanical Gardens Associate Director
- Michael Shiosaki, Seattle Parks, Planning & Development Deputy Director
- Iain Robertson, UW Associate Professor, Department of Landscape Architecture
- Kjris Lund, Mayoral Appointee
- Sandy Brooks, ABGC coordinator

#### Public:

- Nancy Belcher
- Susan Black
- Other public attendees

### Meeting overview

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- Purpose of today's discussion – Rob Berman.
- Recap of June SR 520 presentation – Rob Berman.
- Updates from other work groups – Kerry Ruth, Jenifer Young.
- Preferred alternative design and construction sequencing – Kerry Ruth, Bruce Jamieson.

- Foster Island, Lake Washington Boulevard Ramps: ABGC questions, ideas for potential improvements – All.
- SDOT Arboretum Traffic Management – Andrew Barash, Luke Korpi.

## **Discussion of meeting topics**

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### **3-D model**

Rob Berman explained that the SR 520 team does not plan to develop a physical three-dimensional model (which the ABGC had previously requested), but are developing a computer simulation that shows the preferred alternative (PA) design through a video. Questions and comments included:

- Paige Miller: All visualizations so far have been from the highway. It would be helpful to have views from the ground toward the SR 520 highway. A physical model (rather than a computer simulation) would be ideal.
- Kjris Lund: The ABGC may consider writing a letter to Paula Hammond and Dave Dye requesting a physical model of the SR 520 project since the SR 520 project team is not planning to provide one.
- Michael Shiosaki: Some of the stills from the computer simulation will likely be more accurate than a physical model would be. It will be good to see the visualizations the team has developed.
- Rob Berman: We can create additional viewpoints based on your input. We'd like to show you what our team has developed and hear from you about additional viewpoints.

### **ESSB 6392 workgroups and process**

Kerry Ruth reviewed the ESSB 6392 workgroup coordination chart and the ABGC/Technical Coordination Team (TCT) coordination chart. Questions and comments included:

- Jack Collins: I am surprised to see that you are not planning to attend the ABGC meeting in November, as this seemed like an important time to review the draft mitigation plan.
  - Rob Berman: This is an oversight; we will correct this.
- Kjris Lund: It is great to see that you plan to incorporate additional meetings to cover traffic management. We appreciate the recognition that this topic will take more time.
- Jack Collins: The Master Plan Implementation Group (MPIG) meets between the monthly ABGC meetings. Maybe we could use the MPIG meetings for traffic management discussions.
  - The group agreed that this would be appropriate. The MPIG generally meets the fourth Monday of each month; Michael Shiosaki chairs this group. Barbara Wright will follow up with Rob Berman regarding specific meeting dates and times. Barbara Wright and Sandy Brooks will determine how to include other meeting participants in the MPIG meetings.

### **PA design and construction sequencing**

Kerry Ruth walked through an engineering drawing that shows the PA design. Kerry also reviewed still visualizations of the removed Lake Washington Boulevard ramps and Foster Island path/undercrossing.

She explained that the team wants to hear ABGC's input on the conceptual design and aesthetics of these areas. Questions and comments included:

- There is no noise barrier shown on the visualization. Will one be provided?
  - Noise barriers are not assumed to be part of the design in this area at the moment. The SR 520 team would like ABGC's input on whether this assumption is accurate.
- Will the berm where the Lake Washington Boulevard ramps currently enter the Arboretum be removed?
  - The SR 520 team would like ABGC's input on this.
- Can any of the columns under the SR 520 bridge on Foster Island be removed?
  - No. All the columns shown in the visualization are necessary to support the bridge structures.
- Has the shape of the columns been determined?
  - The shape of the columns is not set. They may be round or square.
- Barbara Wright: The ABGC would like to provide input regarding the aesthetics of these structures.
- Iain Robertson drew the locations and perspectives of additional viewpoints that he feels would be useful for the ABGC on the engineering drawing.
- Paige Miller: Has anyone evaluated the potential impacts of shading Foster Island?
  - Jenifer Young: Yes, the natural resources team has evaluated shade impacts in terms of vegetation growth. They found that vegetation does not generally grow beneath bridges that are eight feet high or lower. Some vegetation grows underneath bridges between eight and 24 feet high. Bridge structures above 24 feet high seem to have no impact on vegetation growth.
- Paige Miller: It would be helpful to understand the types of plants that will grow in these areas.
- Jack Collins: A physical model would help illustrate what the area underneath the bridge structures would look like. Additional computer simulation images would be helpful.
  - Kerry Ruth: We will develop additional simulation stills to help you understand what this area will look like.
- Fred Hoyt: Simulations from underneath the bridge would be helpful to better understand the amount of shade.

Bruce Jamieson walked through the temporary work structures roll plot and construction sequencing schedule. Questions and comments included:

- Paige Miller: Will pile driving be part of the construction in this area?
  - Bruce Jamieson: Yes, there will be both vibratory pile driving and impact pile driving. The contractor will use the vibratory technique as much as possible but will likely need to conduct some impact pile driving to complete some of the piles.
- What time of year will pile driving occur?
  - Bruce Jamieson: Pile driving can only take place in certain times of year based on in-water construction windows. There would be about six months worth of pile driving.
- Will the path on Foster Island remain open during construction?

- Bruce Jamieson: The team hopes to keep the path open as much as possible. Some closures will be required to ensure safety during certain construction activities.
- Kjrj Lund: What is the problem with pile driving? Why is it a concern?
  - Paige Miller: Pile driving cause noise and vibration impacts. ABGC needs more information about the timing, duration, and impact minimization measures associated with pile driving.
- Iain Robertson: The engineering drawing is very confusing. There are too many lines and no legend. It is too difficult to understand.

## Mitigation

Jenifer Young described the mitigation ideas that the agencies have suggested through the TWG processes. She explained that the SR 520 team would like to hear ABGC's input on these concepts, and any additional ideas for mitigating within the Arboretum. The ABGC provided the following suggestions for mitigation opportunities:

- Arboretum Creek
  - Enhance the flow by the Japanese Gardens.
  - Divert flow from the Seattle Public Utilities stormwater facility.
  - Evaluate opportunities for improving flow past Madison Street.
- Foster Island
  - Consider including amenities on the bridge structure/undercrossing; use Discovery Park as an example.
  - Improve the Foster Island trail.
- Lake Washington Boulevard ramps
  - Define a process for ABGC's/UW's participation in the design of ramp area restoration.
  - Remove the berm at the north entry to the Arboretum.
- Bicycle and pedestrian mobility/connections
  - Improve the connection between "Arboretum North" and the main part of the Arboretum.
  - Incorporate the multi-use bicycle trail identified in the Arboretum Master Plan.
  - Evaluate the connection of roadways, trails and traffic, especially at the entrance to the Arboretum and connections with Foster Island Drive.
  - Include methods to improve wayfinding, e.g. signage, so that getting to the Arboretum is more intuitive.
- Use concepts identified in the Arboretum Master Plan.
- Consider opportunities to provide Arboretum offices, as this was a verbal agreement with MOHAI that may be lost.

Questions and comments included:

- Kjrj Lund: Is funding for mitigation available?
  - Jenifer Young: Funding for mitigation is included in the overall project budget. Certain types of mitigation are required so funding is accounted for. Other types may not be

required through regulations so they may need to be prioritized based on available funding.

- Iain Robertson: How can we ensure that the funding for mitigation is not lost or used to cover other cost overruns?
  - Paige Miller: Some mitigation activities are required by law and cannot be overlooked. The ABGC needs more information about exactly what types of mitigation are required.
- Kjris Lund: Thank you for considering these out-of-the-box concepts. It is helpful for the ABGC to understand these types of options.
- Jack Collins: Can you explain the roles of the SR 520 team? It seems that roles may have shifted and clarification is needed about who fills which role.
  - Rob Berman: Understandable, there are a lot of people with different roles and responsibilities on the project. I am the Planning Manager and deal with all environmental and traffic analyses. In terms of ABGC coordination, I am responsible for ensuring you get the information you need and coordinate directly with Barbara. Jenifer Young leads the environmental side of the project and Kerry Ruth leads the engineering side of the project.

### **Traffic management**

Andrew Barash provided an overview of traffic management concepts suggested by the TCT at a previous meeting and discuss traffic calming vs. traffic volume objectives. Luke Korpi discussed proposed changes to traffic operations within the Arboretum. The ABGC provided the following suggestions for traffic management and operational improvements:

- Improve bicycle and pedestrian “usage” (not just safety).
- Provide incentives for drivers to use alternative routes.
- Traffic studies should incorporate Arboretum needs, e.g. trip diversion.
- The ABGC prefers raised crosswalks rather than marked crosswalks.
- Develop a prioritized list of traffic management solutions. (Rob Berman suggested the ABGC complete this task.)
- Consider a stop sign at Boyer Avenue.
- Consider tolling drivers who use Lake Washington Boulevard to connect to the SR 520 highway.

Questions and comments included:

- Jack Collins: It is important for WSDOT and SDOT to coordinate on traffic management in the Arboretum. I am disappointed that the city is not funded to implement concepts preferred by the ABGC. Maybe WSDOT can fund these as part of SR 520 traffic mitigation.
- The group discussed their preference for raised crosswalks rather than marked crosswalks. SDOT only has funding for a few marked crosswalks. Some ABGC members emphasized the importance of SDOT funding raised crosswalks while others suggested WSDOT fund these types of projects as traffic improvements/mitigation. One suggestion included writing a letter to SDOT to request funding.

- Rob Berman: It would help WSDOT and SDOT to see a list of prioritized traffic management ideas for the Arboretum. I encourage you to prioritize the concepts that you would like to see implemented so that WSDOT and SDOT can determine if and how these can be funded.
- Donald Harris: Since we are continuing to hear the same answer from SDOT representatives regarding funding raised crosswalks, it is likely that a letter will also result in the same answer. It might help if the ABGC changes focus.

## Action items

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- Rob Berman will provide Barbara Wright with additional information regarding Foster Island survey work once finalized and available.
- Katie DeLeuw will ensure the ESSB work group coordination chart is updated to reflect the rescheduled August meeting date (Aug. 18) and add a November ABGC meeting.
- Barbara Wright will follow up with Rob Berman regarding specific Master Plan Implementation Group (MPIG) meeting dates (the next one is July 26) and times. Barbara Wright and Sandy Brooks will determine how to include other ABGC meeting attendees in MPIG meetings at which Arboretum traffic management will be discussed.
- The ABGC is planning to reprioritize elements identified in the Arboretum Master Plan and will provide these updates to the SR 520 team in August.
- The SR 520 team will develop visualizations for additional viewpoints, as suggested by ABGC members. Visualizations will be “user” level views.
- The SR 520 team will provide the following information:
  - Foster Island design – Details regarding the gap in the highway over Foster Island and the height of the bridge at Foster Island so that ABGC members can conceptualize potential improvements.
  - Shade – Describe how shade could affect vegetation beneath the bridge structures and the users’ experience/perspective.
  - Pile-driving – Timing, duration, and methods that will be used to minimize the noise and vibration from pile-driving.
  - Construction windows, e.g. the time of year of certain activities, and the range/distance of noise impacts.
  - A clearer west approach drawing with a legend (attendees found the engineering drawing to be complicated and confusing).
  - SR 520 regulatory mitigation requirements, e.g. the amount and type of mitigation needed, potential ratios. This will help the ABGC understand how the “amenities” they suggest may fit into the regulations.
- The SR 520 team will develop a matrix of mitigation ideas and connections to regulations for discussion at future meetings. Input from the ABGC will be incorporated into the matrix as additional ideas or to characterize identified ideas.
- The ABGC will consider developing a prioritized list of traffic management ideas for the Arboretum – this will help WSDOT and SDOT evaluate their roles in traffic management improvements.
- Luke Korpi will evaluate SDOT’s rationale for not including a stop sign at Boyer Avenue.

- The SR 520 team will follow up with Nancy Belcher regarding the haul routes described in the Section 106 consulting parties briefing on July 8 – more information is needed regarding whether the haul routes near the Miller Street landfill area would be continuous or temporary, and if temporary, then when will this area be used.



## Arboretum and Botanical Garden Committee Meeting Summary

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Monday, July 26, 2010, 3 – 5 p.m.

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Kerry Ruth, I-5 to Medina Project Engineering Manager
- Jenifer Young, I-5 to Medina Project Environmental Manager
- Tresia Bass, SR 520 Program Traffic Operations Lead
- Katie DeLeuw, SR 520 Program Environmental Communications

#### Seattle Department of Transportation:

- Andrew Barash
- Luke Korpi
- Jennifer Wieland

#### ABGC:

- Barbara Wright, Chair and Arboretum Foundation President
- Paige Miller, Arboretum Foundation Executive Director
- Donald Harris, Seattle Parks, Property Manager
- Fred Hoyt, UW Botanical Gardens Associate Director
- Michael Shiosaki, Seattle Parks, Planning & Development Deputy Director

#### Public:

- Nancy Belcher
- George Gunby
- Virginia Gunby
- Jorgen Bader
- Larry Sinnott
- John Barber

### Meeting overview

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- Welcome: Purpose, update on Foster Island field work – Jenifer Young, Kerry Ruth
- Preferred Alternative: Review of Arboretum focus area, access to/from the Arboretum – Kerry Ruth
- Traffic Calming and Traffic Management: Goals and measures of success – Andrew Barash, Luke Korpi, ABGC members

## Discussion of meeting topics

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### Foster Island

Kerry Ruth provided an overview of the fieldwork the team plans to begin in early August. Trained archaeologists will complete all fieldwork by hand. No mechanized equipment will be used. The findings of this fieldwork will be released in the final environmental impact statement (EIS) after close coordination with the tribes.

**ACTION:** The SR 520 communication team will distribute a Foster Island fieldwork fact sheet to Barbara Wright and Paige Miller once it is complete.

### Review of preferred alternative in Arboretum area

Kerry Ruth reviewed the preferred alternative design in the Arboretum area by walking through an engineered preferred alternative layout that the SR 520 team had further clarified based on feedback from the ABGC. Kerry described the following components of the preferred alternative:

- The preferred alternative includes a two-lane westbound off-ramp for general-purpose vehicles along the north side of the Montlake lid.
- The preferred alternative includes transit/HOV direct-access ramps on the Montlake lid to and from the Eastside.
- To access eastbound SR 520 from Montlake Boulevard, like today, vehicles can use the general-purpose loop ramp. Transit/HOV users can use the direct-access on-ramp from the lid.
- At the widest location, there would be 12 lanes across the SR 520 highway east of the Montlake lid.
- The preferred alternative includes removal of the existing Arboretum / Lake Washington Boulevard ramps.
- Drivers using the westbound off-ramp would be able to access Lake Washington Boulevard via 24th Avenue E.

Questions and comments included:

- Local access to 24th Avenue E., just south of SR 520 where it is an alley, may be a concern.
  - Kerry Ruth: Local vehicles could go straight across the lid to access 24th Avenue E.
- Barbara Wright: How will vehicles be discouraged from driving through neighborhoods north of SR 520?
  - Kerry Ruth: This is a topic that the ABGC and SR 520 team can discuss further.
- Nancy Belcher: How much wider is the future Lake Washington Boulevard than the existing Lake Washington Boulevard at the lid?
  - The SR 520 team will follow up to provide this information.
- Paige Miller: WSDOT should model the traffic calming measures that the ABGC has suggested.

## Traffic volumes

Kerry described the volumes for traffic moving through the Arboretum. WSDOT's analysis shows that the volume on Lake Washington Boulevard through the Arboretum today is around 18,000 average daily trips (ADT). Approximately 50% of these are trips that cross Lake Washington via SR 520 and 10% are accessing SR 520 westbound to I-5. The remaining 40%, or about 7,000 vehicles, are not accessing SR 520.

The team also evaluated future traffic volumes in the year 2030 based on the SDEIS forecast. All forecast data will be updated for the FEIS. Under the "No Build" scenario, the ADT is estimated to increase by 25% to 22,500 due to population and employment growth in the area. With construction of the preferred alternative, the ADT would be reduced by 10-15% to 20,000 in 2030. This estimate does not include incorporation of any traffic management measures.

Questions and comments included:

- Barbara Wright: Is it possible to determine where cars are coming from when they travel through the Arboretum?
  - Kerry Ruth: This has not yet been evaluated, but an origin-destination study could be completed.
  - **ACTION:** WSDOT and SDOT will coordinate to develop this study and report back.
  - Larry Sinnott: There is a Lake Washington Boulevard traffic analysis from 2002 that includes an origin-destination study.
- Paige Miller: Many vehicles travel down First Hill and through Madison to access SR 520, as well as from Martin Luther King, Jr. Way.
- Paige Miller: What was the ADT estimated for option A?
  - **ACTION:** The team will report back to the ABGC on the ADT for option A.

## Peak hour traffic

Kerry Ruth provided a comparison of peak hour traffic. During the PM peak hour, there are about 1,400 trips through the Arboretum today. This increases to 1,800 by the year 2030 due to population and employment growth in the area. The SR 520 preferred alternative would reduce this volume by about 300 vehicles per hour to 1,500.

Questions and comments included:

- Larry Sinnott: The number of peak hour trips estimated for option A in 2030 was 1,200.
  - **ACTION:** The SR 520 team will verify this data and report back.
- Nancy Belcher: What does the traffic model show for impacts to Boyer Avenue?
  - Tresia Bass: We had not initially evaluated the arterial streets to this level but are evaluating these effects now.
  - Paige Miller: It would be helpful to have this data.
  - **ACTION:** Provide results of modeling effects to arterial streets when available.
- Barbara Wright: How will bicyclists and pedestrians cross the lid between the Arboretum and Montlake?

- Kerry Ruth: Enhancements are being developed to connect to the lid from the Arboretum. Bicyclists and pedestrians would be able to access the top of the lid where there would be a signalized intersection. They would also be able to cross north-south under the lid.
- George Gunby: Would cars traveling south across the lid be able to turn left on to Lake Washington Boulevard?
  - Kerry Ruth: Yes. Traffic models have indicated that traffic would not increase beyond the No Build 2030 projections.

### Goals for traffic management

Andrew Barash described the traffic management goals the SR 520 Technical Coordination Team (TCT) had previously identified:

- Increased bicycle and pedestrian use and safety through the Arboretum.
- Reduced queue lengths in the Arboretum (compared to a No Build scenario).
- Reduced noise in the Arboretum area.
- Increased use of the Arboretum park.
- Reduced total number of automobile trips through the Arboretum.
- Maintain transit reliability on Montlake Boulevard and 23rd Avenue.

The group suggested the following additions and changes:

- Add “maintain existing character of the Arboretum.”
- Add “reduce speed.”
- Add “vehicle safety” in addition to increased pedestrian and bicycle safety. This could include both real and perceived safety improvements.
- Reduced queue lengths in the Arboretum should be compared to **current** queue lengths rather than the 2030 No Build scenario.
- Reduced noise levels in the Arboretum should be compared to **current** noise levels.
- Increased use of the Arboretum park should specify **visitor** use.
- Reduced total number of automobile trips in the Arboretum should be compared to **current** number of trips.
- Transit reliability should be a measure of success rather than a goal.
- Consider incorporating the following:
  - Limit Arboretum traffic by restricting to local use only (and minimize inconvenience to neighbors using local streets).
  - Discourage use of Lake Washington Boulevard through traffic calming features.
  - Encourage traffic to use alternative arterial routes.

Questions and comments included:

- Paige Miller: Reducing speed could also result in reduced traffic volumes. One of the ABGC’s desires is to reduce traffic volumes at all times of the day. The ABGC has previously stated the goal to reduce cars to 4,000 per day in the Arboretum. I suggest limiting traffic through the

Arboretum to locals only. We do not want to cause difficulties for neighbors. The most important change is that Lake Washington Boulevard is no longer used as an on- or off-ramp for the SR 520 highway. Reduced traffic could also result in reduced noise levels.

- Andrew Barash: A reduction and/or elimination of non-local traffic may potentially encourage additional local use. As such, specifying a maximum number of vehicles per day may not be a practicable goal. However, it is understood that the ABGC desires that traffic volumes are reduced at all times of the day and limited to locals only.
- Michael Shiosaki: The ABGC wants to discourage use of Lake Washington Boulevard as an on- or off-ramp for SR 520. We would like traffic in the Arboretum to be a consistent, slower speed.
- Paige Miller: One option for reducing traffic would be tolling drivers who use Lake Washington Boulevard to access to/from SR 520.
- Luke Korpi: Regarding the goal of safety, is this intended to address perceived safety or actual safety?
  - Barbara Wright, Paige Miller: Likely both. It should be easier for bicyclists and pedestrians to safely access various areas within the Arboretum. Right now visitors are not encouraged to cross the road. A pedestrian crossing would help.
- Andrew Barash: Would limiting vehicle access from roads that link to the Arboretum also be a goal?
  - Paige Miller: The ABGC would like more information about whether closing the Boyer Avenue E. and E. Interlaken Boulevard Arboretum entrances would help reduce traffic in the Arboretum.

### **Traffic management measures of success**

Andrew Barash led a discussion of measures of success. The group suggested the following measures (associated with the goals shown):

- Goal: Reduced total number of automobile trips in the Arboretum.
  - Measure: Model various traffic calming and traffic management scenarios, e.g. tolling Lake Washington Boulevard, preventing a left turn on to Lake Washington Boulevard.
  - Measure: Model Arboretum traffic without SR 520 users.
- Goal: Increased bicycle and pedestrian use and safety through the Arboretum.
  - Measure: Count existing pedestrian crossings and compare to future additions.
  - Measure: Assume new bicycle and pedestrian improvements, along with any reduction in the volume of speed of traffic, provide benefits that lead to increased use (qualitative measure).
- Goal: Reduced queue lengths in the Arboretum.
  - Measure: Model existing and future queue lengths.
  - This could also result in reduced pollution and improved air quality.
- Goal: Reduced noise in the Arboretum area.
  - Measure: Model existing and future noise levels.
- Goal: Increased [visitor] use of the Arboretum park.

- Measure: Assume new features lead to increased visitor use (qualitative measure).
- Goal: Maintain transit reliability on Montlake Boulevard E. and 23rd Avenue E.
  - This goal should be changed to a measure of success under “increased visitor use.”
- Goal: Maintain existing character of the Arboretum.
  - Measure: This is qualitative and could be evaluated by comparing to the Arboretum Master Plan.
- Goal: Reduced speed in the Arboretum.
  - Measure: Model/analyze how traffic calming and other features that contribute to speed reduction.

Questions and comments included:

- Larry Sinnott: We need to be careful in terms of setting the bar to WSDOT standards. The preferred alternative should meet or beat the metrics evaluated for option A and should be compared to option A without the ramps.
- Paige Miller: Reduced queue lengths could lead to improve air quality.
- Barbara Wright: Reducing traffic volumes seems like it is an overarching goal because it affects noise levels, air quality, safety, etc.
- Paige Miller: Measuring the success of increased visitor use will be challenging because we don’t have current visitor data. We need to survey the number of people who currently visit the Arboretum. Maybe this is something WSDOT could consider funding.
- Michael Shiosaki: The intention of measuring queue lengths is not clear. How would we measure queue length and why?
  - Jenifer Young: This may not be relevant once we evaluate the traffic data.
- Luke Korpi: Regarding the goal of discouraging use of Lake Washington Boulevard, some traffic calming measures may be more effective than others to divert trips. Speed humps have been proven effective for this goal. Traffic calming measures are generally effective for trip diversion if they force drivers to behave better.
- Fred Hoyt: What would SDOT recommend in terms of traffic calming in the Arboretum?
  - Luke Korpi: Some safety measures can be implemented immediately. Safety measures that are installed now can be combined with traffic calming measures in the future for overall improvements. Speed signs might also be effective.
- Barbara Wright: It would be helpful to see examples the speed signs you suggest so the ABGC can evaluate them.
- Paige Miller: Would SDOT’s recommendation change based on the ABGC’s goals to reduce vehicle usage? SDOT’s goal would generally be to improve pedestrian safety while maintaining vehicle use.
  - Luke Korpi: Vertical obstructions such as speed humps are generally effective for reducing vehicle use. It is a challenge to find the right balance of traffic calming measures.
- Fred Hoyt: What about evaluating the traffic lights on E. Madison Street, and the impacts on queue lengths?

- Luke Korpi: SDOT can evaluate the signal cycles on E. Madison Street and 24th Avenue E.
- Barbara Wright: It would also be helpful if the ABGC could evaluate the whole package of features available.

### Next steps

Kerry Ruth described the next steps for coordinating with ABGC on traffic management. At the next meeting regarding traffic management (Aug. 23), the team plans to provide a summary of the revised goals to review. Then the group can review ideas and options for potential traffic calming and traffic management features, and prioritize these options.

**ACTION:** SDOT will revise the Arboretum traffic management goals for review at the next ABGC meeting.

Questions and comments included:

- Paige Miller: What measures are being taken to ensure 23rd and 24th Avenues E. can handle additional capacity? Who is working on this and how will the ABGC be informed?
  - Jennifer Wieland: SDOT will follow up with the ABGC on this topic. SDOT does not plan to evaluate widening 23rd or 24th Avenues E., but are evaluating other options and will report back to ABGC.
  - Barbara Wright: SDOT should evaluate turning left on to 23rd Avenue E. from E. Thomas and John Streets.
  - Additional suggestions of traffic movements to evaluate include 24th Avenue E., north on to E. Shelby and Hamlin Streets, and south in to the alley at 24th Avenue E.
- Donald Harris: How does WSDOT respond to people who are concerned with the number of lanes, e.g. 12 lanes at the widest location?
  - Kerry Ruth: The project is a 6-lane corridor, plus associated merging, off- and on-ramps.
- Michael Shiosaki: What is the possibility of being able to narrow the highway footprint?
  - Kerry Ruth: The preferred alternative design has already been narrowed where possible. WSDOT is balancing many different factors, including safety, which limits the amount of flexibility in terms of reducing shoulder widths or other safety features.
- Paige Miller: Can WSDOT evaluate the possibility of reducing the speed to 45 miles per hour on SR 520 through the Arboretum? Similar to the Portage Bay bridge, perhaps reducing the speed could result in reduced shoulder widths and therefore narrow the highway overall.
  - Kerry Ruth: WSDOT can evaluate this. The Federal Highway Administration (FHWA) must approve reduced shoulder widths and reduced speed.n.

### Requests and action items

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- Distribute the Foster Island fieldwork fact sheet to Barbara Wright and Paige Miller once complete. *Note: Katie DeLeuw distributed this on July 28.*
- Report back to the ABGC on the width of the current Lake Washington Boulevard and the width of Lake Washington Boulevard at the proposed lid location in the preferred alternative. (WSDOT)

- Conduct an origin-destination analysis on traffic using Lake Washington Boulevard. Compare previous data with new data. (WSDOT)
- Provide data on average daily trips for Option A without the ramps. (WSDOT)
- Provide modeling results for why traffic decreases with new ramp configuration and where it goes, e.g. Boyer Avenue E., E. Interlake Boulevard. (WSDOT/SDOT)
- Compare queue lengths today vs. 2030 (both no build and preferred alternative) at various locations. (WSDOT)
- Evaluate the potential to close E. Interlaken Boulevard and Boyer Avenue E. Arboretum entrances; report back on likely traffic effects. (WSDOT/SDOT)
- Evaluate the potential to reduce the speed limit of SR 520 to 45 miles per hour through the Arboretum. (WSDOT)
- Investigate whether data is available for existing bicycle and pedestrian use of the Arboretum. (SDOT will follow up on bicycle use; pedestrian use is harder to quantify and data is likely not available.)
- Provide a proposal for modeling local use only through the Arboretum, including options such as tolling and preventing left turns on to 24th Avenue E. (WSDOT)
- Provide a list of potential traffic calming and speed reduction features for the Arboretum. (Luke Korpi, SDOT)
- Evaluate the capability of 24th Avenue E. to accommodate additional diverted traffic from Lake Washington Boulevard. (SDOT will provide a timeline for when this work could be complete.)
- Evaluate traffic effects from left turns on 23rd Avenue E. from E. Thomas/John St. (SDOT)
- Revise the Arboretum traffic management goals for review at the next ABGC meeting. (SDOT)



## Arboretum and Botanical Garden Committee Meeting Summary

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Wednesday, Aug. 18, 9:30 to noon

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Tresia Bass, SR 520 Program Traffic Operations Lead
- Rob Berman, SR 520 Program Planning Manager
- Katie DeLeuw, SR 520 Program Environmental Communications
- Michael Horntvedt, SR 520 Program Transportation Manager
- Kerry Ruth, I-5 to Medina Project Engineering Manager
- Susan Wessman, SR 520 Program Landscape Architect
- Jenifer Young, I-5 to Medina Project Environmental Manager

#### Seattle Department of Transportation:

- Andrew Barash
- Stephanie Brown
- Luke Korpi
- Jennifer Wieland

#### ABGC:

- Sandy Brooks, ABGC coordinator
- Jack Collins, Mayoral Appointee
- Theresa Doherty, University of Washington, Assistant Vice President for Regional Affairs
- David Graves, Seattle Parks Project Manager
- Donald Harris, Seattle Parks, Property Manager
- Fred Hoyt, UW Botanical Gardens Associate Director
- Sandra Lier, Vice-Chair and UW Botanic Gardens Director
- Paige Miller, Arboretum Foundation Executive Director
- Iain Robertson, UW Associate Professor, Department of Landscape Architecture
- Michael Shiosaki, Seattle Parks, Planning & Development Deputy Director
- Dave Towne, Washington State Governor's Appointee

#### Public:

- Jorgen Bader
- Nancy Belcher
- Susan Black
- Maurice Cooper

- Virginia Gunby

- Larry Sinnott

## Meeting overview

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- Action item review and updates – Rob Berman.
- Traffic calming and management in the Arboretum – Andrew Barash.
- ABGC and MPIG Master Plan priorities overall – Rob Berman, Jenifer Young.
- Visualizations in the Arboretum – Rob Berman, Susan Wessman.
- Updates and next steps – All.

## Discussion of meeting topics

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### Action item review and updates

Rob Berman provided a brief meeting overview, reviewed action items from the previous meeting and provided an update on progress. To complete one action item, Kerry Ruth reviewed the Lake Washington Boulevard graphic.

Questions and comments included:

- Paige Miller: What are the standards for Olmsted Boulevards? Is the existing boulevard width standard for an Olmsted Boulevard?
  - Stephanie Brown: There are no standards for Olmsted Boulevards in Seattle.
- Paige Miller: Wider lane widths lead to increased traffic speeds. The Arboretum should have a park-like feel with traffic traveling at slower speeds. There should not be any signaling to drivers that faster speeds are permitted.
  - Jennifer Wieland: In addition to emergency access, the wider lanes also allow for the possibility of a bicycle lane to Lake Washington Boulevard. The proposed planted median can be discussed further. If there is no median, that would change emergency access concerns.
- Fred Hoyt: Will there be a bicycle path across the lid?
  - Jennifer Wieland: A bicycle path is proposed across the lid as well as a sidewalk that could serve as a multi-use trail.

Jennifer Wieland clarified SDOT's concerns with emergency access and safety. Wider lanes are needed to accommodate emergency vehicles, which cannot cross the road due to the curbs along the planted median.

- Nancy Belcher: Perhaps the planting strip is not needed.
- Theresa Doherty, Jack Collins and Michael Shiosaki: The planted median is beneficial and contributes to the park-like feel.
- Kerry Ruth: Why was a planted median added to the design?
  - Susan Wessman: The planted median strip creates a more classic boulevard feel.
- Iain Robertson: What is the length of the roadway that requires additional width for emergency access? It may be possible to reduce the widths in some areas.

- Rob Berman: That topic can be discussed further at the September meeting and after those concerns have been evaluated.

### **Feedback on SDOT's pedestrian and traffic calming improvements**

Luke Korpi reviewed the roll plot, walked the group through the traffic calming options for the Arboretum and distributed a matrix of potential traffic calming options. He then outlined SDOT's recommendations, beginning with marked crosswalks.

Questions and comments included:

- Paige Miller: The Arboretum Master Plan included a pedestrian-activated signal at the Japanese Garden parking lot. Why hasn't SDOT proposed this?
  - Luke Korpi: SDOT's evaluation shows that a marked crosswalk would be sufficient. A pedestrian-activated signal would look like a traffic signal. This could be considered but it would have aesthetic affects. It can be added to the list of items for review.
  - Paige Miller, Sandra Lier: It would be helpful to understand the trade-offs. Maybe SDOT could add this to the list of traffic calming considerations.
  - Jack Collins: Flashing traffic lights might reduce the number of signs needed in this area.
  - Andrew Barash: SDOT is working to balance pedestrian safety with Arboretum character, and can explore various options such as the size of signs.
  - Stephanie Brown: SDOT will add pedestrian-activated signals to the list.
- Iain Robertson: What are the traffic-speed figures?
- Luke Korpi: Speeds are 34-35 miles per hour at the north end of Lake Washington Boulevard, south of Foster Island Road. Approximately 85 percent are going 10 miles per hour (mph) over the speed limit. For context, in other residential streets, 85 percent of drivers travel at 29 mph. On arterials, this number increases to about 35 mph. Drivers are not seeing obstacles that would normally slow them down like driveways and pedestrians.
- Sandra Lier: Regarding the list of goals, is it within our purview to think about enhancing access for public transit?
  - Andrew Barash: It would be helpful to hear the ABGC's input on traffic calming to ensure that SDOT's list is complete and the correct elements are captured.
- Jack Collins: Could speed cushions be used?
  - Luke Korpi: There is concern about aesthetics with speed cushions and accompanying signage.
- Paige Miller: There is no good way for pedestrians to cross Lake Washington Boulevard at Foster Island Road. This whole intersection needs to be evaluated.
  - SDOT will check into this.
- Fred Hoyt: SDOT should also consider a striped crosswalk across E. Interlaken Boulevard rather than Lake Washington Boulevard.

Barbara Wright and Sandy Brooks will collect input from the ABGC on the traffic calming matrix and send this to SDOT by end of the day Friday, Aug. 20.

### **Traffic management discussion**

Tresia Bass reviewed some of the key findings of the origin-destination license plate survey that was conducted at the SR 520 ramps at Lake Washington Boulevard. There were more regional trips than originally thought. Many of the drivers using the SR 520 ramps are from the western shore of Lake Washington, Montlake, Capitol Hill, and downtown Seattle. Tresia then reviewed how trips are estimated to operate with the preferred alternative. Trips from the north areas would shift to Montlake Boulevard and potential Boyer Avenue.

Questions and comments included:

- Paige Miller: Did the modeling show a shift to I-90?
  - Tresia Bass: The modeling shows some shift to I-90 and I-5, approximately 10 percent. The transportation team is currently updating the traffic model and will share that information when it is available.
- Paige Miller: What about signal timing modifications?
  - Stephanie Brown: These are on the table, although SDOT and WSDOT have not identified where or when signal timing modifications could be implemented.
- Kerry Ruth: WSDOT does want to keep the southbound left turn movement from 24th Avenue E. on to Lake Washington Boulevard as part of the preferred alternative.
  - Paige Miller: WSDOT should evaluate potential improvements to Montlake Boulevard before removing the left turn from 24th Avenue East from consideration. Lake Washington Boulevard is considered a Section 4(f) resource and the use of this road for SR 520 is objectionable.
  - Jenifer Young: There are different interpretations of how to apply Section 4(f) in this case.
- Nancy Belcher: Will the direct-access ramps be high-occupancy tolling (HOT) lanes?
  - Kerry Ruth clarified that WSDOT is not considering HOT lanes in that area and that WSDOT is not proposing to toll this area.
- Rob Berman: Has the Master Plan Implementation Group (MPIG) reprioritized the projects identified in the Arboretum Master Plan?
  - Sandra Lier: Yes, the MPIG has completed this and will send the list to WSDOT later in the week.

### **Feedback on initial mitigation ideas and format of materials**

Jenifer Young reviewed a matrix mitigation projects being evaluated, formatted in response to an earlier request. The projects described in the matrix are also shown on the Arboretum mitigation projects graphic.

Some of the individual projects shown on the graphic could be consolidated into a few larger projects. The ABGC would like to be included in the design of restoration projects and aesthetic improvements and would like WSDOT to consider surplusing the WSDOT peninsula to the Arboretum as mitigation and the possibility of constructing a well to supplement Arboretum Creek flow.

Questions and comments included:

- Jack Collins, Nancy Belcher: The group has previously discussed an Arboretum “office space.” This could be a curatorial, educational, or interpretative space (potentially coordinated with tribes). This could be located in the area where the ramps will be removed.
- Paige Miller: Could WSDOT consider constructing a well? Additional work would be needed to understand the water rights and feasibility, but this is an idea to consider.
- Fred Hoyt: It also might be possible to capture surface water where it extends into Broadmoor. That could also help with water flow.
- Jack Collins: The wayfinding plan includes very specific improvements rather than overall improvements. It is not clear how WSDOT would implement wayfinding improvements.
  - Rob Berman: This warrants further discussion.
- Paige Miller: What should be done for Native American interpretation? It might be useful to coordinate with the tribes, but the ABGC does not know which tribes would be interested.
  - Jenifer Young: WSDOT is coordinating with the tribes regarding Section 106. Discussions have not yet reached minimization measures but coordination can address this topic.
- Jack Collins, Theresa Doherty: The graphic is a great starting point and is easy to understand.

#### **Discussion of revised and new visualizations**

The group reviewed a set of existing photos in comparison with visualizations once the preferred alternative is constructed. Questions and comments included:

- Jack Collins: Regarding the MOHAI trailhead visualization, does the bridge height shown represent the final height?
  - Kerry Ruth: The height shown will be the final height. It is higher to allow for stormwater drainage and treatment.
- Fred Hoyt: Can an imprinted texture or the concrete tinted be used on the bridge so that the bridge blends with the Arboretum better?
  - Kerry Ruth: Urban design guidelines have not yet been established. WSDOT will follow up with the ABGC after the preferred alternative design refinements have been developed to discuss urban design and aesthetics.
- Iain Robertson: How wide is the bridge at the location of the Foster Island undercrossing visualization? It seems like more of the underside should be visible.
  - WSDOT will follow-up on this to confirm the accuracy of the visualization.
- Iain Robertson: What are the poles for in the visualization and what is the length of the lit area?
  - Michael Horntvedt: The poles are light poles. The lighting is needed for merge areas and “conflict” areas.
- Fred Hoyt: WSDOT should consider removing the right of way chainlink fence near the Foster Island undercrossing.
  - Kerry Ruth: WSDOT can remove the chainlink fence if this is the ABGC’s preference, and potentially provide other, more aesthetically-pleasing barriers.
- Other comments:
  - Consider methods to avoid risk of vagrants or homeless encampments beneath the SR 520 bridge on Foster Island.

- The visualizations are very helpful and represent a lot of work by WSDOT.

### Upcoming meetings

- Aug. 23 – Continue traffic management discussion.
- Sept. 8. – Discuss noise, continue mitigation discussion.

### Requests and action items

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- Distribute the Foster Island fieldwork fact sheet to Barbara Wright and Paige Miller once it is complete.
- Lake Washington Boulevard
  - Update the existing and proposed sections graphic to include the bike lane that is assumed as part of the 16-foot vehicle lane. (WSDOT)
  - Consider reducing the width of the Lake Washington Boulevard lanes to 10 feet. (WSDOT)
  - Consider reducing the width of the 14-foot sidewalk if the 16-foot vehicle lane includes a bike lane. (WSDOT)
  - Identify the total length of the section of Lake Washington Boulevard where additional lane width for emergency vehicles is required. (WSDOT)
- Traffic calming and traffic management
  - Provide input to Sandy Brooks and Barbara Wright on the list of recommended traffic calming improvements; consolidate this list and submit to SDOT. (ABGC)
  - Revise the pedestrian and traffic calming improvements matrix based on ABGC input. (SDOT)
  - Reorder the goals listed on the “Traffic management in the Arboretum” handout:
    - The first one should remain first (increase safety).
    - Reduce automobile trips should be second.
    - Reduce speed of vehicles should third.
    - Reduce noise should be fourth.
  - Revise the traffic goals and measures of success base on ABGC input. (SDOT)
  - Provide MPIG priorities list. (ABCG)
- Mitigation
  - Provide the list of reprioritized Master Plan projects to WSDOT for consideration as mitigation projects. (ABGC)
  - Revise the “Potential Mitigation Projects Identified by the ABGC” graphic based on ABGC input. (WSDOT)
  - Determine if/how changes to Lake Washington Boulevard would be constrained as a historic resource. (WSDOT)
  - Determine whether the state can surplus WSDOT peninsula to the Arboretum. (WSDOT)
- Visualizations / aesthetics

- Evaluate possibility of incorporating tinted/modified concrete color into urban design guidelines. (WSDOT)
- Provide more information about operational lighting (e.g., where will lighting be included on the bridge). (WSDOT)

## **Materials**

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- Action items tracker.
- Visualizations and key.
- Mitigation and Enhancement for Washington Park Arboretum matrix.
- Traffic Management in the Arboretum – goals and measures of success matrix.
- Potential mitigation projects identified by the ABGC graphic.
- Preferred alternative engineered layout.



## Arboretum and Botanical Garden Committee Meeting Summary

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Monday, Aug. 23, 3 to 5 p.m.

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Katie DeLeuw, SR 520 Program  
Environmental Communications
- Michael Horntvedt, SR 520 Program  
Transportation Manager
- Kerry Ruth, I-5 to Medina Project  
Engineering Manager
- Jenifer Young, I-5 to Medina Project  
Environmental Manager

#### Seattle Department of Transportation:

- Stephanie Brown
- Jennifer Wieland

#### ABGC:

- Nancy Belcher, Arboretum Foundation
- Sandy Brooks, ABGC coordinator
- Theresa Doherty, University of  
Washington, Assistant Vice President  
for Regional Affairs
- David Graves, Seattle Parks Project  
Manager
- Donald Harris, Seattle Parks, Property  
Manager
- Fred Hoyt, UW Botanical Gardens  
Associate Director
- Sandra Lier, Vice-Chair and UW Botanic  
Gardens Director
- Kjris Lund, Mayoral Appointee
- Paige Miller, Arboretum Foundation  
Executive Director
- Michael Shiosaki, Seattle Parks,  
Planning & Development Deputy  
Director

### Meeting overview

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- Update on traffic calming – SDOT.
- 2030 No Build and Preferred Alternative queue comparison – Michael Horntvedt.
- Evaluation of traffic management options – Michael Horntvedt.

## **Recap of discussion topics**

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Kerry Ruth provided an overview of WSDOT's and SDOT's presentation to the ABGC. Kerry also provided updates on action items from previous meetings.

- The last Workgroup meeting was the previous Thursday, Aug. 19 and the next Workgroup meeting will be Sept. 9.
- The west approach off-ramp does not need to begin until just west of Foster Island. This will reduce the road width across Foster Island by one lane.
- WSDOT is evaluated whether removing the planted median at the Portage Bay Bridge would result in reduced overall bridge width.
- The Design Refinements and Transit Connections recommendations report public comment period will be Sept. 13 to 24.

### **Traffic calming improvements – matrix of traffic calming options**

Jennifer Wieland explained that the legislative recommendations report includes white papers on both traffic calming and traffic management. Questions and comments included:

- Paige Miller: The in-lane bus stop on Montlake Ave E. could affect traffic in the area.
- Nancy Belcher: The ABGC was not clear on how the time-of-day closures would work. It would be helpful if Michael Horntvedt could elaborate on this.

The group agreed that SDOT should move forward with the list of traffic calming options presented at the Aug. 18 ABGC meeting, after incorporating the feedback from ABGC discussed at the meeting. Nancy Belcher would like to compare existing channelization with the proposed channelization.

### **2030 No Build and Preferred Alternative queue comparison**

Michael Horntvedt reviewed queue data with the group. While the preferred alternative is estimated to reduce p.m. peak trips compared to the 2030 No Build scenario, the ABGC is concerned that the number of trips is not reduced when compared to existing data. The increase compared to existing is not related to the SR 520 project. Traffic management in the Arboretum is an issue that the city will address with ABGC.

Questions and comments included:

- Paige Miller: Was the a.m. peak modeled?
  - Michael Horntvedt: WSDOT did not model the a.m. peak at this time because we are planning to reanalyze this for the FEIS.
- Paige Miller: When will a.m. peak data be available for review?
  - Michael Horntvedt: It will be available with the FEIS.
- Paige Miller: If it is only possible to model one peak period, then the p.m. peak is the better period to model.
- Theresa Doherty: What are the predicted trip numbers?

- Michael Horntvedt: The existing p.m. peak number of trips is 1,400. In 2030 with the no-build alternative 1,800 trips are expected. Under the preferred alternative in 2030, the model predicted 1,500 trips are expected, and with Option A in 2030, 1,200 trips are expected.
- Stephanie Brown: A better comparison would be to model existing traffic conditions under the preferred alternative and compare that to the predicted conditions in 2030 with the preferred alternative in place.
- Paige Miller: The Arboretum is already experiencing 1400 trips during the peak period, and that is too much. The preferred alternative increases the number of trips and does not meet the ABGC's goal.
  - Stephanie Brown: That is unrelated to the SR 520 project and will be addressed by SDOT rather than WSDOT. The traffic information that is released in the FEIS will be beneficial in terms of supporting traffic improvements in the Arboretum.

### **Evaluation of traffic management options**

Michael Horntvedt reviewed the anticipated results of restricting a left turn from southbound 24th Avenue E. to Lake Washington Boulevard, including possible congestion increase in the Arboretum and diversions to other roads. Without improvements to local streets, it seems that this would reduce the number of trips at the expense of queue lengths. While it may improve noise and pollution effects at the south end of the Arboretum, it may also worsen these effects in the north end. The tradeoffs for restricting this left turn will be described in the traffic management plan, although a full restriction will not be a recommendation of the ESSB 6392 Technical Coordination Team. SDOT and WSDOT can evaluate the possibility of a time-of-day restriction to inform the traffic management plan.

Questions and comments included:

- Paige Miller: Could capacity be added to southbound Montlake Boulevard through a pullout bus stop rather than an in-lane stop?
  - WSDOT will evaluate this suggestion.
  - Stephanie Brown, Michael Horntvedt: To reduce traffic in the Arboretum, both Lake Washington Boulevard and Montlake Boulevard would need to be widened.
- Paige Miller: Would this reduce the width of 24th Avenue E.?
  - Michael Horntvedt: No, the width of 24th Avenue E. would remain as proposed (two southbound lanes and one northbound lane).

The group discussed the potential to close 24th Avenue E. This would require additional widening in the corridor. Stephanie Brown explained that the Seattle Mayor and City Council have requested that WSDOT not expand the 23rd/24th/Montlake corridor. If the ABGC would like WSDOT and SDOT to continue evaluating this option, then this will need to be approved by the Mayor and City Council.

- Paige Miller: How many more vehicles can the turn lane accommodate before it becomes a problem? Can other options be considered to encourage a right turn from 24th Avenue E.?

- Michael Horntvedt: The number will be very small, approximately 0.02. It is unlikely that a solution during the peak can be found. However, a time-of-day closure might be appropriate.
- Krjis Lund: The time-of-day restrictions should be further evaluated. How will this be captured for additional evaluation?
  - Theresa Doherty: This should be a suggestion by the ABGC for WSDOT and SDOT to consider.
- Paige Miller: Regardless of the solution the ABGC proposes, it is important to ensure traffic is not encouraged to use the Arboretum. Also, it seems like an adjustable traffic management plan should be implemented to allow the system to function.
  - Stephanie Brown: SDOT can evaluate methods for adjustable traffic management.

The group discussed the potential to toll local streets as a traffic management measure. Tolling will be described in the traffic management plan as it is considered an effective tool ultimately; however there are challenges associated with implementation and logistics. Because tolling would require authorization from The Seattle City Council at the very least, the ABGC would need to advocate for early implementation of such a measure.

- Nancy Belcher: Which agency would be responsible for tolling evaluation and implementation?
  - Stephanie Brown, Kerry Ruth: The infrastructure would likely be on city streets but coordination with WSDOT would be needed.
- Paige Miller: Perhaps the state could collect a toll from Lake Washington Boulevard users when a toll is collected to use SR 520. The state could pay this back to the city. However, there is no legislative authority for this currently.

The group discussed other options that may be evaluated through SDOT's traffic management plan. SDOT will describe the trade-offs of the traffic management measures evaluated, but may not recommend implementation of all evaluated options.

- Paige Miller: The biggest challenge for regional transit is bus mobility.
- Michael Shiosaki: The ABGC should consider the potential effects to other neighborhoods and be careful not to create issues with the community.
- Sandra Lier: The ABGC needs to thoroughly vet all options.

Evening peak traffic to and from the north via Boyer Avenue is 160 cars per hour. The morning peak is 360 cars per hour. Those trips are likely from the Capitol Hill and First Hill neighborhoods. It is not clear where the drivers currently making these turns are coming from – the ABGC should consider that they could be local. The tradeoffs for restricting these turns will be described in the traffic management plan by SDOT.

Questions and comments included:

- Paige Miller: Will the pattern of vehicle use in this area change as a result of the preferred alternative? The number of a.m. trips should go down since it will be more difficult to access SR 520 eastbound from Lake Washington Boulevard.
  - There is no data to support this supposition.

- Stephanie Brown: From SDOT’s perspective, the ABGC should not try to change the preferred alternative, but instead think of these measures as mitigation for traffic in the Arboretum. Could the I-5 to Medina project record of decision contain language regarding WSDOT’s commitment to reduce traffic in the Arboretum?
  - Jenifer Young: the measures WSDOT is responsible for will be described in the NEPA process.
- Kjriss Lund: Are any of the “road diets” theories applicable in the Arboretum?
  - Jennifer Wieland: “Road diets” can work well for turning but they do not work well everywhere.

Kerry Ruth described the channelization of Lake Washington Boulevard. Questions and comments included:

- Paige Miller: How do bicyclists and pedestrians connect from the Arboretum across SR 520? Why have bicycle lanes on Lake Washington Boulevard if there are already bike paths elsewhere?
  - Stephanie Brown: It is important that cyclists can get through while still allowing cars to queue. Additionally, there is no bike lane between 24th Avenue E and Montlake Boulevard.

### **Next meeting – Sept. 8**

WSDOT and SDOT will return on Sept. 8 from 9:30 to noon to discuss the following:

- Follow up on traffic and the draft traffic management plan, including the ABGC’s request to evaluate reducing the speed of SR 520 to 45 mph in the Arboretum.
- Continue the mitigation discussion; present a revised mitigation graphic and table based on Master Plan projects.
- Operational lighting.
- Noise.

### **Requests and action items**

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- Traffic calming
  - Incorporate ABGC’s comments on the traffic calming list from the Aug. 18 meeting into the traffic calming matrix. (SDOT)
  - Send revised traffic calming matrix to the ABGC. (SDOT)
  - Continue moving forward with evaluation of traffic calming option; begin cost estimates. (SDOT).
- Distribute ABGC decision matrix to SDOT and WSDOT. (ABGC – Sandy Brooks)
- Queue length comparisons
  - Develop a graphic to compare existing queue lengths to the 2030 analysis; send to ABGC. (WSDOT)

- Provide updated traffic data, including a.m. peak data, once available (targeting October). (WSDOT)
- Traffic management
  - Evaluate the possibility of implementing a pull-out bus stop rather than an in-lane bus stop on southbound Montlake Boulevard; determine whether this would add capacity to Montlake Boulevard. (WSDOT)
  - Evaluate options for an adjustable traffic management plan (e.g., activate 24th Ave left turn only when needed) that maximizes current available capacity while reducing traffic in the Arboretum. (WSDOT/SDOT)
  - Develop methods for monitoring the effectiveness of traffic management measures once implemented. (WSDOT/SDOT)
  - Continue to evaluate the possibility of managing traffic through tolling. (WSDOT/SDOT)
  - Determine whether the ABGC should request that the city expand the capacity of Montlake Boulevard/24th Avenue to accommodate the potential left turn restriction. (ABGC)
  - Continue evaluating turning restrictions between Boyer Avenue and Lake Washington Boulevard.
  - Evaluate turning restrictions between Interlaken Boulevard and Lake Washington Boulevard. (WSDOT)
  - Evaluate options for improving the Foster Island Drive and Lake Washington Boulevard intersection. (WSDOT/SDOT)

## **Materials**

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- Typical PM Peak Period Queues on Lake Washington Boulevard – 2030 No Build vs. 2030 Preferred Alternative



## Arboretum and Botanical Garden Committee Meeting Summary

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Wednesday, Sept. 8, 9:30 to noon

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Rob Berman, SR 520 Program Planning Manager
- Katie DeLeuw, SR 520 Program Environmental Communications
- Michael Minor, SR 520 Program Noise Consultant
- Kerry Ruth, I-5 to Medina Project Engineering Manager
- Jenifer Young, I-5 to Medina Project Environmental Manager

#### Seattle Department of Transportation:

- Andrew Barash
- Stephanie Brown

#### ABGC:

- Nancy Belcher, Arboretum Foundation
- Sandy Brooks, ABGC coordinator
- Theresa Doherty, University of Washington, Assistant Vice President for Regional Affairs
- David Graves, Seattle Parks Project Manager
- Donald Harris, Seattle Parks, Property Manager
- Fred Hoyt, UW Botanical Gardens Associate Director
- Sandra Lier, Vice-Chair and UW Botanic Gardens Director
- Kjris Lund, Mayoral Appointee
- Paige Miller, Arboretum Foundation Executive Director
- Michael Shiosaki, Seattle Parks, Planning & Development Deputy Director
- Dave Towne, Washington State Governor's Appointee
- Barbara Wright, Arboretum Foundation and ABGC Chair

#### Public:

- Jorgen Bader
- Susan Black
- Virginia Gunby
- Larry Sinnott

## Meeting overview

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- Update on WSDOT's proposal for mitigating in the Arboretum – Rob Berman and Jenifer Young
- Traffic management requests from ABGC – Stephanie Brown and Andrew Barash
- Noise in the Arboretum – Michael Minor
- Update on project operations – Kerry Ruth
- Updates and next steps – Rob Berman, Barbara Wright

## Discussion of meeting topics

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### Update on WSDOT's proposal for mitigating in the Arboretum

Rob Berman walked meeting participants through a graphic and matrix describing WSDOT's mitigation proposal for effects in the Arboretum. The team is not proposing to restore Arboretum Creek due to the need for flow augmentation and water storage, as well as the unlikelihood of receiving regulatory mitigation credit for the project. ABGC members recognized and appreciated the amount of work WSDOT has done to evaluate suggested projects and develop a proposal.

The group discussed the following comments and questions:

- Paige Miller: Arboretum Creek restoration is important for fish habitat, as well as educational and cultural purposes. One method for supplementing stream flow could be to drill a well rather than store and release water in a storage facility.
- Fred Hoyt: How will effects to wildlife be mitigated?
- Paige Miller: WSDOT should consider partnering with other organizations to improve Arboretum Creek, and identify what benefits WSDOT could provide if the flow augmentation were funded and implemented through other means.
- Theresa Doherty: Would a well need to augment flow by the same amount that a storage facility would?
  - Rob Berman: Yes, but with a well additional storage would not be needed.
- Theresa Doherty: Is it feasible to drill a well in the Arboretum?
  - Paige Miller: Yes, it is physically feasible but additional information is needed regarding the costs, regulatory constraints, water rights, and other factors associated with drilling a well to supplement flow to Arboretum Creek.

Rob Berman explained that mitigation on Foster Island is pending tribal coordination, as the Muckleshoot Indian Tribe has requested a meeting with the ABGC to discuss mitigation on Foster Island. WSDOT plans to facilitate dialogue between the Muckleshoot Indian Tribe and the ABGC. The ABGC agreed to meet and thought this should occur as soon as possible.

- Fred Hoyt: What is the wetland mitigation ratio?
  - Jenifer Young: The wetland mitigation ratios depend on the category of wetlands being affected. That will be covered at the next natural resources technical working group meeting.
- Krjis Lund: Does the north entry project include Foster Island Drive?

- Michael Shiosaki: The project includes Foster Island Drive to the existing SR 520 ramps.
- Fred Hoyt: WSDOT should discuss their plans for the Union Bay Natural Area with the ABGC.
- Paige Miller: Reducing the speed of the SR 520 highway through the Arboretum could allow WSDOT to narrow the roadway and minimize impacts. WSDOT should evaluate this option.
- Krjis Lund: Regarding Rob's previous questions of whether WSDOT can proceed with the identified questions, what would the ABGC be committing to?
  - Rob Berman: While there may not be a clear answer right now, the SR 520 team needs to know if the projects discussed today are on the right track.

### **Traffic management requests from ABGC**

Andrew Barash distributed a matrix of traffic management ideas for discussion with the ABGC and reviewed these with the group. The potential traffic management measures listed are all ideas and SDOT is not advocating for any particular concepts at this time.

SDOT clarified that WSDOT is not planning to fund any of these measures, but, depending on the cost, SDOT may be able to implement some improvements. Funding will need to be identified for other projects, and some projects will need to be elevated and approved before they can be pursued. SDOT would like the ABGC to review and prioritize the projects, and will provide a new matrix that includes relative costs for the projects.

Questions and comments included:

- Paige Miller: Major traffic management measures, such as signal timing improvements, should be implemented to discourage drivers from using Lake Washington Boulevard to access SR 520 eastbound.
- Krjis Lund: What is SDOT's intent for 24th Avenue E.?
  - Andrew Barash: This would be a signal.
- Nancy Belcher: Does this assessment show that local-access only signs are not effective?
  - Andrew Barash: Correct, though this could be implemented part time.
- Paige Miller: The ABGC needs more information about potential implementation costs and how revenues could be used.
  - WSDOT and SDOT plan to return in October with more information about tolling options, although may not be able to provide much information on potential revenue at this time.

Andrew Barash explained that turning restrictions on to Lake Washington Boulevard from southbound 24th Street would require expanding capacity at multiple locations in the corridor, which would require policy exemptions. The ABGC should carefully consider the pros and cons of this option. SDOT should evaluate peak vs. off-peak restrictions.

- SDOT will return in October with traffic management recommendations based on minimal effects to the surrounding areas.
- Krjis Lund: What is the assumption regarding bicyclists?
  - Paige Miller: It is assumed that commuters will use the road; recreational bicyclists will use the multi-use trail.

## Noise in the Arboretum

Michael Minor provided an overview of traffic noise, how noise is measured, preliminary noise modeling results in the Arboretum, and options for reducing and mitigating traffic noise. The preferred alternative being analyzed includes a solid concrete 42-inch traffic barrier and a 42-inch traffic barrier with noise absorptive material. Due to the increased height of the SR 520 bridge and the traffic barrier, preliminary traffic noise modeling indicates that future build noise levels will be reduced when compared to existing and 2030 no build noise levels.

Only noise walls and berms can be evaluated as noise mitigation measures. Speed reductions, lids, truck restrictions and depressed highways cannot be evaluated as a noise mitigation measure, but can be included in the noise model if it is included as part of the overall project design. Quieter concrete cannot be included in the model as a noise mitigation measure because the Federal Highway Administration has not approved it for us in Washington. WSDOT is continuing to study quieter concrete and is committed to providing the best overall pavement surface, both from a noise and longevity standpoint, along the SR 520 corridor.

Questions and comments included:

- Paige Miller: How did WSDOT identify the number of Arboretum visitors?
  - Michael Minor: This was a number the Arboretum provided years ago.
- Paige Miller: Can two different models be run, one based on 45 mph and one based on 60 mph?
  - Michael Minor: Yes.
- Paige Miller: It seems that lowering the posted speed limit results in behavior changes. Does it seem like people adapt to the lowered limit and only travel 5 mph above the new posted limit?
  - Michael Minor: The model runs at the posted speed limit provide by traffic engineers. However, radar gun measurements how that traffic actually travels slightly faster than the posted speed limit during peak free-flowing traffic.
- Kjris Lund: What about the Ship Canal Bridge? Would a higher bridge create more noise?
  - Michael Minor: The Ship Canal Bridge is an old bridge. It has old technology and more expansion joints. Noise is also reflected from the top deck. However, a higher bridge would result in less noise at the ground because the noise would be diffracted before it reaches the ground.
- Paige Miller: Assuming a 42-inch-high barrier, can noise absorptive materials be applied?
  - Michael Minor: Yes, and this is the option that is currently being analyzed. A taller barrier could also be considered.
- Nancy Belcher: Noise walls were not recommended in the SDEIS. Is that still the case for the preferred alternative?
  - Michael Minor: Noise walls were not recommended in the SDEIS because the high cost made them unreasonable. The new evaluation may find that they are financially feasible.
- Nancy Belcher: If the area of potential effects (APE) were expanded to include the whole Arboretum, would the noise model be expanded?

- Michael Minor: All arterial roads are considered in the model. The APE is different for noise than other evaluated effects because noise walls are generally ineffective past 300 or 400 feet.
- Theresa Doherty: Overall, does the noise level increase?
  - Michael Minor: Overall the noise level decreases. The traffic barrier reduces the amount of noise reaching adjacent neighborhoods.
- The SR 520 team will provide additional information on traffic and construction noise in November.

### **Update on project operations**

Kerry Ruth updated the group on project operations. WSDOT is unable to reduce the highway speed in the Arboretum area to 45 mph. The SR 520 team evaluated this option and presented the proposal to WSDOT management and FHWA, but was not approved to deviate from standard highway speed. The speed reduction on the Portage Bay bridge was approved because a logical termini exists, so that drivers can easily observe the change in highway conditions.

The SR 520 team was able to reduce the overall width of the highway in the Arboretum by reducing the eastbound shoulders by two feet on each side. The westbound shoulder widths cannot be reduced any further and are needed for construction of the west approach. From a noise standpoint, the elevated profile, four-foot barrier, and quieter concrete will likely result in reduced noise levels.

The ABGC requested a more detailed explanation of the constraints associated with reducing the highway speed and the inability to reduce the westbound shoulder widths. This will be described in the Section 4(f) report. In addition, the SR 520 team will walk through construction sequencing for the west approach, including an explanation of the westbound width requirements, at the next meeting.

### **Updates and next steps**

- WSDOT will return on Sept. 27 to discuss west approach construction sequencing, follow up on the Arboretum mitigation discussion, and provide an overview of preferred alternative design refinements.
- WSDOT and SDOT will return on Oct. 13 to discuss tolling, provide recommendations on traffic management options, and provide additional information on noise if it is available at this time (more likely to be in November). WSDOT will invite the tolling division.
- ABGC members provided positive feedback about WSDOT's and SDOT's presentations and engagement with the ABGC. Discussions have been useful and have included a good level of detail.

## Requests and action items

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- Provide year-by-year construction sequencing information for the west approach at the Sept. 27 meeting. (WSDOT)
- Describe projects considered but not proposed as part of Arboretum mitigation, and the rationale for removing those from consideration. (WSDOT)
- Consider identifying options to implement flow supplementation improvements for Arboretum Creek through a partnership. (WSDOT)
- Coordinate with the Muckleshoot Indian Tribe and the ABGC to schedule a meeting to discuss mitigation options on Foster Island. (WSDOT) *Update: Rob Berman is coordinating with the WSDOT cultural resources specialist to identify potential meetings dates that will work for Muckleshoot Indian Tribe representatives.*
- Present the SR 520 team's plans for wetland and aquatic mitigation at the Union Bay Natural Area to the ABGC. (WSDOT)
- Add a cost column to the traffic management measures matrix and send this to the ABGC. (SDOT)
- Review and prioritize the traffic management concepts developed by SDOT. (ABGC)
- Evaluate peak vs. off-peak turning restrictions from 24th Avenue on to Lake Washington Boulevard. (SDOT)

## Materials

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- Project Operations: Highway and Arterial Street Lighting handout.
- Traffic Noise: Introduction to Traffic Noise Analysis and Abatement presentation.
- Draft Proposed Mitigation for Effects to the Washington Park Arboretum matrix.
- Action items tracker.
- WSDOT Evaluation of Potential Mitigation Projects in Washington Park Arboretum graphic.



## Arboretum and Botanical Garden Committee Meeting Summary

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Monday, Sept. 27, 3 to 5 p.m.

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Rob Berman, SR 520 Program Planning Manager
- Shane Cherry, SR 520 Program Mitigation Lead
- Katie DeLeuw, SR 520 Program Environmental Communications
- Bruce Jamieson, I-5 to Medina Project Construction Consultant
- Dawn Yankauskas, I-5 to Medina Project Engineer
- Jenifer Young, I-5 to Medina Project Environmental Manager

#### ABGC:

- Nancy Belcher
- Sandy Brooks, ABGC coordinator
- Theresa Doherty, University of Washington, Assistant Vice President for Regional Affairs
- Donald Harris, Seattle Parks, Property Manager
- Fred Hoyt, UW Botanical Gardens Associate Director
- Sandra Lier, Vice-Chair and UW Botanic Gardens Director
- Paige Miller, Arboretum Foundation Executive Director
- Michael Shiosaki, Seattle Parks, Planning & Development Deputy Director
- Dave Towne, Washington State Governor's Appointee
- Barbara Wright, Arboretum Foundation and ABGC Chair

#### Public:

- Jorgen Bader
- Virginia Gunby
- Larry Sinnott

### Meeting overview

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- West approach construction sequencing
- Mitigation
- Updates and next steps

## Discussion of meeting topics

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### West approach construction sequencing

Dawn Yankauskas reviewed the constraints the team worked within to develop the west approach construction sequencing and schedule. Dawn also described the avoidance and minimization measures that WSDOT will implement during construction, and walked the group through the construction sequencing schedule. The group discussed the following questions:

- Paige Miller: Why will WSDOT maintain two-way traffic on Lake Washington Boulevard during construction?
  - This is to alleviate potential congestion on Montlake Boulevard during construction.
- Paige Miller: Will truck hauling along the identified haul routes occur consistently or will it be bursts of activity?
  - Bruce Jamieson: Hauling activity will likely be intermittent.
- Fred Hoyt: Has WSDOT considered measures to minimize homeless encampments on Foster Island, such as filling beneath the bridge?
  - Dawn Yankauskas, Rob Berman: WSDOT is not planning to fill the area beneath the SR 520 bridge on Foster Island. The tribes have indicated that filling on Foster Island is not acceptable either during construction or permanently.
- Nancy Belcher: Is there a process for establishing ongoing communication during construction? How will the ABGC be engaged in development of the construction management plan? What is the timing of the plan?
  - Rob Berman: WSDOT hopes to receive input from the community regarding their priorities and commitments to be made through the construction management plan. The ABGC can request specific elements to be included in the construction management plan.

Bruce Jamieson walked through year-by-year construction sequencing graphics and described the activities proposed to occur during each year of construction. Questions and comments included:

- Paige Miller: What are the restrictions associated with driving piles on Foster Island?
  - Bruce Jamieson: The project can drive piles on land, above the ordinary high water mark, any time of year. However, there are restrictions regarding the time of year piles can be driven in water due to protect fish.
- Nancy Belcher: Please be sure to provide advance notice for any tree trimming or clearing work that you plan to complete.
  - Rob Berman: This is an element that can be included in the construction management plan.
- Paige Miller: How long into project construction will it be before Lake Washington Boulevard is operational?
  - Bruce Jamieson: It will be up to the contractor to determine these specific timelines, though it is likely that Lake Washington Boulevard would be used for hauling initially. Construction personnel and equipment will be staged at the end of the existing Lake

Washington Boulevard ramps. There will likely be construction activity along Lake Washington Boulevard for the full construction duration.

- Nancy Belcher: What types of construction staging activities are likely to occur on the WSDOT peninsula?
  - Bruce Jamieson: This will be up to the contractor, although it will likely be used for equipment storage and access to and from the Lake Washington Boulevard ramps.
- Paige Miller: The ABGC anticipates that the WSDOT peninsula will be returned to the Arboretum.
  - Dawn Yankauskas: WSDOT will limit effects to the WSDOT peninsula and plans to restore the area once construction is complete.
- Paige Miller: Can the workbridges handle public traffic? If public traffic could use the workbridges then maybe the permanent structure would not need the extra four feet of width.
  - Bruce Jamieson: The workbridges are not designed to carry public traffic. They will be designed by the contractor, likely to carry cranes and construction vehicles. None of the safety and design requirements, such as barrier and shoulders, will be included in the design. During 2015 and 2016, an interim connection bridge will transition public traffic between the new floating bridge and the existing west approach. Once the new northern west approach structure is completed, all SR 520 traffic will be placed on the new structure while the existing structure is removed and the southern west approach structure is built. During this intermediate phase, four additional feet of width in the west approach is needed to allow both eastbound and westbound traffic to flow. The four additional feet is the minimum to safely have two-way traffic on the northern west approach structure.
- Nancy Belcher: What is falsework?
  - Bruce Jamieson: Falsework is temporary structure constructed to hold permanent structure in place, and is removed once the permanent structure is able to support itself.
- Fred Hoyt: When will the Lake Washington Boulevard ramps and nearby berm be removed?
  - Bruce Jamieson: Demolition of the mainline of the existing bridge and the ramps is anticipated to begin in 2015; however, they may not be completely removed until 2016. Restoration and grading would likely occur starting in 2018.
- Nancy Belcher: How will stormwater be managed during construction?
  - Bruce Jamieson: Best management practices will be used to capture and treat stormwater during construction as part of temporary erosion and sediment control. While stormwater pumps are not proposed as part of the permanent project, it is possible that they might be used during the construction phase to ensure proper stormwater collection and management.

## Mitigation

Rob Berman described the legislative direction the project received through ESSB 6392 in terms of Arboretum mitigation. While the legislation specifically calls out wetland mitigation, the team has found it challenging to identify quality wetland mitigation within the Arboretum.

Shane Cherry described the regulatory priorities under consideration as the team has identified candidate mitigation for effects to natural resources. In searching for mitigation opportunities, the team prioritized nearby sites and evaluated opportunities described in the Arboretum Master Plan. The team exhausted all mitigation possibilities in the Arboretum for regulated natural resources.

Questions and comments included:

- Dave Towne: How does the SR 520 team measure impacts and tie impacts to mitigation?
  - Shane Cherry: There are many different types of impacts to natural resources, including temporary, permanent, fill and shade. The team plans to mitigate for shade impacts in addition to fill impacts.
- Nancy Belcher: Were the wetlands reclassified since the release of the SDEIS? There was concern regarding the accuracy of the wetland classifications described in the SDEIS.
  - Shane Cherry: There was a question about whether to apply the wetland classification systems used by the city of Seattle or the Department of Ecology, as these systems have some slight differences. To be conservative, the team is proposing to mitigate for wetlands that were calculated to be on the cusp between two categories as though they are in the higher category. Mitigation ratios are prescribed based on the category of the impacted wetland and the type of mitigation activity proposed (e.g. restoration, creation, or enhancement). Wetland enhancement must improve a wetland one whole category, and this would prove difficult in the Arboretum.
- Paige Miller: If the flow of Arboretum Creek were enhanced, would that provide the benefits needed for effective mitigation?
  - Shane Cherry: Replumbing the stream or improving the hydrology would be considered rehabilitation and could increase the value.

Shane Cherry provided an overview of the sites the team is considering for wetland mitigation in the Arboretum, including the WSDOT peninsula and Arboretum Creek. Arboretum Creek is challenging due to its shape, size and location. A wetland would require a buffer, but space constraints in the Arboretum would result in very little wetland once the buffer is applied. While state and federal mitigation requirements may not be met at Arboretum Creek, it is likely that the site could provide wetland buffer replacement necessary for city of Seattle mitigation requirements.

Questions and comments included:

- Fred Hoyt: What are the buffer requirements?
  - Shane Cherry: Traditionally the buffer would be a 175-foot along the wetland boundary, although this could potentially be negotiated based on the category of wetland. The buffer is usually calculated from the delineated wetland. If there is a space constraint then a “paper” buffer could be calculated from the nearest road or development. The paper buffer would result in decreased wetland value.

- Nancy Belcher: Could a special consideration be made to account for the uniqueness of the Arboretum?
  - Shane Cherry: WSDOT must be consistent with regulations that apply to the project. It would be a challenge to redeem much wetland mitigation in the Arboretum under state and federal regulations.
- Paige Miller: Would stream flow enhancement help you meet regulatory requirements?
  - Shane Cherry: Flow enhancement would not be relevant for wetland mitigation, and still would not elevate Arboretum Creek to the top of the list in terms of fish habitat mitigation. Wetland improvements to Arboretum Creek will be designed to be compatible with future flow changes should this occur.
- Fred Hoyt: Would fencing be installed around the areas that would be used for wetland mitigation?
  - Shane Cherry: The team hopes to minimize fencing and use low-profile signs or other methods to fit within the context of the Arboretum.

Shane Cherry briefly described the team’s evaluation of the Union Bay Natural Area as wetland mitigation. The University of Washington has been engaged in discussions about potential activities and uses of the Union Bay Natural Area. This large area is ideal for mitigation because applying a buffer would not prohibit compliance with state and federal mitigation requirements. A site along the Cedar River is also under consideration due to its ecological connection to the Lake Washington system.

- Fred Hoyt: It would be helpful for the ABGC to visit both the Union Bay Natural Area and the Arboretum Creek sites under consideration.
- Theresa Doherty: It would also be helpful to see a graphic that shows specific improvements WSDOT is proposing at the Union Bay Natural Area.

Jenifer Young provided an overview of the regulatory processes associated with mitigation for impacts to parks. The project primarily impacts park resources regulated by Section 6(f) of the Land & Water Conservation Fund Act. Many of the projects evaluated for potential Arboretum mitigation would fulfill the requirements of Section 4(f) of the Department of Transportation Act.

Jenifer also walked through a handout titled “WSDOT’s Preliminary Evaluation of Potential Mitigation Projects in the Washington Park Arboretum,” including a table that identifies the potential mitigation and enhancement projects under consideration. Questions and comments included:

- Paige Miller: Three of the projects on the table are described to not be priority projects in the Arboretum Master Plan. The ABGC does feel that these projects are important but did not want to amend the Master Plan to include them.
- Paige Miller: How is traffic management included in the mitigation evaluation?
  - Jenifer Young: WSDOT is not required to provide traffic management as mitigation because there is no nexus to effects. The SR 520, I-5 to Medina project would reduce traffic volumes on Lake Washington Boulevard compared to no action. However, WSDOT will continue coordinating with SDOT and the ABGC to identify and implement appropriate traffic management measures for the Arboretum.

- The ABGC provided positive feedback regarding the format and type of information included in the table of potential mitigation projects.
- The ABGC will compare WSDOT’s list of potential mitigation projects to their initial list. Rob clarified that the ABGC should not lose sight of the nuance of “contribution” as used in the list of potential mitigation projects.
- Paige Miller: Has anyone considered leaving the existing ramps in place and using them as viewing platforms or other uses? The cost savings could be used for Arboretum mitigation.
  - Michael Shiosaki: The ramps do not fit into the context of the Arboretum.
- Rob Berman: Would it be possible for WSDOT to contribute to a fund that already exists, e.g. for operations and maintenance?
  - ABGC members indicated that this is worth considering.
- Paige Miller: This evaluation seems to be heading in the right direction based on previous feedback and discussions.

## Updates and next steps

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- WSDOT will return in October to discuss mitigation in more detail, and potentially provide preliminary cost estimates.

### Public comment

- Virginia Gunby expressed concern with the disconnect between the Workgroup and ABGC processes and recommended the ABGC evaluate the white papers and reports developed by the Workgroup.
- Larry Sinnott suggested the ABGC consider fencing mitigation sites to prevent dogs from accessing the sites.
- Jorgen Bader expressed concern for the potential use of funds WSDOT will provide to the city of Seattle for MOHAI compensation.

### ABGC roundtable

- Paige Miller stated that this was a good session and she learned a lot.
- Sandra Lier thanked WSDOT.
- Fred Hoyt appreciated the synthesis of information.
- ABGC members generally thought the presentation to be useful.

## Requests and action items

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- Schedule field visits with the ABGC to the Union Bay Natural Area and Arboretum Creek. (WSDOT)
- Develop a graphic that shows specific improvements proposed at the Union Bay Natural Area. (WSDOT)

- Revise the table of potential mitigation and enhancements in the Arboretum to include traffic management and clarify that wayfinding would be associated with other improvements. (WSDOT) *Update: This table was revised and sent to Barbara Wright and Sandy Brooks on Sept. 28, 2010 for distribution to the ABGC.*
- Continue evaluating peak vs. off-peak turning restrictions from 24th Avenue on to Lake Washington Boulevard. (SDOT)
- Provide the ABGC with the full wetland mitigation plan once it is available (likely in spring 2011). (WSDOT)
- Evaluated the potential for operation and maintenance funding rather than funding specific projects. (WSDOT)
- Implement wayfinding improvements as part of the Arboretum mitigation plan where ever other mitigation or enhancement projects are proposed. (WSDOT)
- Support SDOT in development of traffic management plan. (WSDOT)
- Provide advanced notice of construction activities (such as tree removal) in the Arboretum. (WSDOT)

## **Materials**

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- Construction sequencing schedule (dated Aug. 30, 2010).
- Presentation slides, including construction sequencing graphics and mitigation information.
- Table of potential mitigation projects within the Arboretum under consideration by WSDOT.
- Potential Arboretum mitigation graphic.



## Arboretum and Botanical Garden Committee Meeting Summary

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Wednesday, Oct. 13, 9 a.m. to noon

Graham Visitors Center, Arboretum Drive, Seattle, WA

### Attendees

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#### SR 520 Program:

- Rob Berman, SR 520 Program Planning Manager
- Katie DeLeuw, SR 520 Program Environmental Communications
- Kerry Ruth, I-5 to Medina Project Engineering Manager
- Jenifer Young, I-5 to Medina Project Environmental Manager

#### ABGC:

- Nancy Belcher
- Sandy Brooks, ABGC coordinator
- Jack Collins, Mayoral Appointee
- Theresa Doherty, University of Washington, Assistant Vice President for Regional Affairs
- Donald Harris, Seattle Parks, Property Manager
- Sandra Lier, Vice-Chair and UW Botanic Gardens Director
- Paige Miller, Arboretum Foundation Executive Director
- Iain Robertson, UW Associate Professor, Department of Landscape Architecture
- Michael Shiosaki, Seattle Parks, Planning & Development Deputy Director
- Dave Towne, Washington State Governor's Appointee
- Barbara Wright, Arboretum Foundation and ABGC Chair

#### SDOT:

- Andrew Barash
- Stephanie Brown

### Meeting overview

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- Traffic management
- Mitigation
- Updates and next steps

## Discussion of meeting topics

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### Traffic management

Stephanie Brown and Andrew Barash reviewed a revised matrix of traffic management measures that includes SDOT's initial comparison of investment, and whether SDOT recommends implementing the measures evaluated. The measures evaluated in the matrix are lettered A through M. Stephanie clarified that SDOT is responsible for funding and implementing the traffic management measures, though SDOT, WSDOT and the ABGC can continue to coordinate on this topic.

Questions and comments included:

- Paige Miller, Nancy Belcher: It would be helpful to understand the definitions of high, medium and low levels of investment. It would also help to distinguish between initial, short-term investments and long-term or maintenance investments.
- Paige Miller: Although implementation and management may be challenging, tolling is the preferred traffic management measure evaluated in the matrix. Tolling is preferred over restricting the southbound left turn from 24th Avenue on to Lake Washington Boulevard because of potentially fewer impacts to park users.
  - Rob Berman: The matrix could be revised with a note stating the preference for tolling and include secondary traffic management measures to potentially be implemented if tolling is deemed infeasible.
- Jack Collins: How would time-of-day turning restrictions between Boyer Avenue or Interlaken Avenue (measure F) and Lake Washington Boulevard affect traffic on other streets?
  - Andrew Barash, Stephanie Brown: Some of the measures evaluated would need to be implemented in tandem. If turning restrictions from southbound 24th Avenue (measure D) were implemented, then it would be important to consider restricting turns from other local streets to prevent drivers from accessing Lake Washington Boulevard via other routes.
  - Stephanie Brown: It is also important to consider the impacts that all of these traffic management options could have on Arboretum users.
- Jack Collins: What would implementation of morning westbound traffic restrictions (measure H) look like?
  - Andrew Barash: This could be similar to the new freeway signs (e.g. Smarter Highway signs) but at a smaller scale. The signs could be turned on or off depending on the time of day.

Stephanie Brown described the status of SDOT's assessment of tolling in the Arboretum. Though compelling as a traffic management strategy, tolling is complex and would require significant coordination. SDOT plans to compile all the considerations, e.g. viability, potential revenue, initial and long-term costs, that would need to be evaluated before determining the next steps.

- Dave Towne: It sounds like the high-occupancy toll (HOT) lanes on SR 167 in the Renton area are not providing the anticipated revenue.

- Kerry Ruth, Stephanie Brown: The revenue gained may be irrelevant because the tolls are intended to benefit traffic management. It is difficult to predict how traffic would respond in the planning stages.
- Paige Miller: Can SDOT provide information about the cost to implement and maintain a tolling system in the Arboretum? Perhaps the state could collect the revenue and remit the proceeds beyond operating costs to the city. Revenue could be considered part of mitigation for the use of the Arboretum to access SR 520.
  - Stephanie Brown: This is difficult to estimate, but it seems unlikely that the revenue would be significant. If tolling were to be implemented, it would be pursued as a traffic management measure and not to gain revenue. The city of Seattle law department can help outline the process for approval and implementation.
  - Kerry Ruth: Evaluating the potential to implement tolls in the Arboretum will take some time, as a great deal of analysis is needed. This includes analysis of potential effects to SR 520 tolling revenue. While WSDOT will not be the decision maker in this case, both WSDOT and SDOT will need to look into this. However, this will take time.
  - Paige Miller: It will be the ABGC's responsibility to bring this issue to the attention of city and state policy makers, though the ABGC will need to rely on technical information from city and state staff.
- Paige Miller: Referring back to the traffic management matrix, measure L is preferred over measure M.

If the ABGC has additional input on the traffic management measures, especially if there are some that should no longer be considered by SDOT, they should let SDOT staff know. In terms of next steps, SDOT plans to develop the traffic management plan by the end of 2010, to be complete at the same time as the ESSB 6392 mitigation report. In 2011, they hope to implement and study some of the identified traffic calming measures. Additional traffic calming measures and some traffic management measures could be implemented as early as 2012. Theresa Doherty stated that the ABGC agrees to remove measures not recommended by SDOT on the traffic management matrix from consideration.

## **Mitigation**

Rob Berman walked through the I-5 to Medina project impact and mitigation materials distributed to the ABGC. He also described the process for memorializing mitigation commitments both in the ESSB 6392 mitigation plan and through the NEPA process. Rob clarified that lids are part of the preferred alternative design.

Questions and comments included:

- Barbara Wright: How will funding be secured?
  - Kerry Ruth: Right now, the SR 520 program is only funded for certain elements of construction, such as the floating bridge, landings and pontoons. WSDOT will be working with the Legislature to identify additional funding sources, including funding for mitigation. This could mean that the project is implemented in phases as funding becomes available. WSDOT has identified key milestones where funding is needed.

- Jenifer Young: Lids are part of the project regardless of funding availability. There is no option to eliminate lids.
- Paige Miller, Nancy Belcher: It sounds like the I-5 to Medina project could exist in its interim configuration for a long time.
- Barbara Wright: The ABGC needs WSDOT's help to memorialize commitments and identify funding.
  - Rob Berman: The SR 520 program can provide information about avoidance and minimization measures, as well as implementation steps for recommended mitigation projects for the ABGC to use as a tool with the Legislature.

Jenifer Young reviewed the overall project effects and candidate mitigation projects for project-wide impacts to provide the ABGC with context for the mitigation under consideration within the Arboretum. The SR 520 team evaluated sites near the SR 520 corridor initially, and then broadened their search to identify sites that benefit fish and aquatic resources. Theresa Doherty provided an overview of the Bryant Building site, which the SR 520 team is evaluating as Section 6(f) mitigation. The SR 520 team plans to release the Section 6(f) environmental evaluation for public review on Nov. 1.

The group discussed the following questions and comments:

- Nancy Belcher: How are cultural impacts to Foster Island defined?
  - Jenifer Young: The SR 520 team has consulted with the tribes to identify Foster Island as a traditional cultural property. The area currently shown on the environmental resource maps is conservative and may be larger than the area historically used.

Jenifer Young walked the group through a matrix of potential Arboretum mitigation and enhancement project scopes and estimated costs. The ABGC discussed the scopes of some of the projects as defined by the Master Plan. Questions and comments about the first three projects on the matrix (contribution to Foster Island improvements, aesthetic enhancements on Foster Island, and WSDOT peninsula restoration) included:

- Donald Harris: Were the cost estimates provided by the ABGC?
  - Sandra Lier: Yes, the ABGC provided WSDOT with 2003 cost estimates.
  - Rob Berman: These have been escalated to account for current costs as estimated for the mid-year of project construction.
- Sandra Lier: Regarding the design and implementation responsibility, what will happen if the amount WSDOT contributes to a project does not fully cover the costs?
  - Rob Berman: It is likely that WSDOT will contribute a dollar amount in some cases, regardless of the scope or actual projects costs, so that the ABGC can prioritize scope activities and use the money where needed. In other cases, such as wetland mitigation, WSDOT will implement the project as defined by the scope. Further discussion is needed on implementation steps.
- Paige Miller: It might be best to implement some projects each way, on a case-by-case basis, depending on which organization prefers to maintain control of the design.

- Rob Berman: Yes, this is what the SR 520 team anticipates. In some cases, WSDOT must maintain control of the project to ensure regulatory requirements are met. In other cases, WSDOT and the ABGC may prefer the ABGC to manage the project.
- Paige Miller: Additional project scoping and cost estimates are needed. Is this something WSDOT could pay for in the near term? In the ESSB 6392 mitigation plan, one commitment could be to fund scoping and cost estimates.
  - Rob Berman: This seems feasible and the SR 520 team will evaluate it.
- Jack Collins: The view of the city on SR 520 westbound could be degraded by the four-foot traffic barriers that are proposed.
- Dave Towne: How many tribes is WSDOT consulting with on this project?
  - Rob Berman: Six different tribes, although the Muckleshoot Indian Tribe is the most active. WSDOT is making progress on working with all six interested tribes.
- Barbara Wright, Nancy Belcher: Is ramp removal included in the restoration costs for the WSDOT peninsula? The cost to remove the structures should not take away from mitigation funding. Also, would the WSDOT peninsula continue to be owned by the state or would the Arboretum become the owner?
  - Rob Berman: The \$2 million identified for restoration of the WSDOT peninsula will not be used for ramp removal. Removal of the ramps is part of the overall I-5 to Medina project. WSDOT is evaluating options for turning the WSDOT peninsula over to Arboretum ownership. WSDOT would need to be able to justify this from a mitigation standpoint.
- Paige Miller: Will the Arboretum Creek restoration be compatible with potential future Arboretum Creek mouth relocation?
  - Rob Berman: Yes, the intent to ensure compatibility with future projects.
- Iain Robertson: Could portions of the existing SR 520 ramps be left in place and used as viewing platforms?
  - Barbara Wright: This suggestion was discussed at the previous ABGC meeting and determined to not fit well into the Arboretum context.
  - Paige Miller: Susan Black has some conceptual drawings that the ABGC should review.
  - Rob Berman, Kerry Ruth: If the ABGC is serious about this suggestion, the SR 520 team will need to know as soon as possible to ensure this design change is incorporated into the environmental documents. The Arboretum would be responsible for maintaining the structure if left in place.
- Michael Shiosaki: Would removal of the ramps include removal of the existing berm?
  - Rob Berman: Yes, removal of the berm has been included in the I-5 to Medina project.

Michael Shiosaki will organize a field visit with the ABGC to the location of the existing ramps to evaluate their potential use as viewing platforms. Michael suggested thinking about the ramps in terms of the human scale rather than the highway scale.

The fourth project on the project scope and estimated costs matrix is a contribution to the North Entry. The Arboretum Master Plan includes a description of what the ABGC anticipates for this area. Rob

Berman explained that WSDOT would prefer to contribute funding to this project but that ABGC would be able to prioritize specific activities to be implemented. Questions and comments included:

- Iain Robertson: Could the North Entry project be thought of as a “gateway to Seattle,” similar to the I-90 portal to Seattle at Mt. Baker?
  - Kerry Ruth: This suggestion should be part of a larger design and aesthetics conversation for the I-5 to Medina corridor. The SR 520 team will continue to work with the ABGC to define corridor concepts that fit within both the SR 520 corridor urban design and the context of the Arboretum.
- Paige Miller: The North Entry was originally scoped without consideration of ramp removal and restoration of the WSDOT peninsula. The ABGC may want to consider a new building in the future to compensate for the loss of MOHAI; this would require a great deal of scoping and planning.
  - Rob Berman, Kerry Ruth: From the SR 520 program’s perspective, WSDOT would contribute to the North Entry project but would not design or manage the project. The ESSB 6392 mitigation plan could specify that scoping be pursued and the projects would be further defined at a later time.

Wetland improvements to Arboretum Creek and the Azalea Way pond would be implemented by WSDOT to ensure compliance with wetland mitigation requirements. The scope WSDOT proposes may be different from the scopes described in the Arboretum Master Plan but would fulfill wetland mitigation needs and respond to legislative direction. If the ABGC is opposed to the proposed activities, the SR 520 team needs to know as soon as possible. Questions and comments included:

- Paige Miller: Would it be possible for WSDOT to provide a connection to the Seattle Public Utilities (SPU) overflow tank and bioswale? Has the SR 520 team considered compatibility with this project?
  - Rob Berman, Jenifer Young: This will require further consultation with SPU representatives and Fred Hoyt. The designs for the mitigation projects can ensure WSDOT does not preclude future SPU projects.
  - Nancy Belcher, Paige Miller, Rob Berman, and Shane Cherry can discuss this topic further separately.
- Jack Collins: The mitigation graphic should show Arboretum Creek entering and leaving the various projects WSDOT has identified, so the connections and overall improvement to the creek is clear.

The group discussed the remaining projects described on the matrix, including WSDOT’s proposed contribution to the multi-use trail, implementation of the Interpretive and Wayfinding plan, noise reduction, and traffic calming. WSDOT anticipates that the proposed contribution to SDOT’s traffic calming measures would cover all the measures described in the matrix SDOT previously presented to the ABGC.

Implementation of the Interpretive and Wayfinding plan could be incorporated into the scope of other projects WSDOT implements or funds in the Arboretum. WSDOT and the ABGC will need to work

together to ensure overall compatibility with both the I-5 to Medina project urban design and the Arboretum character as defined in the Interpretive and Wayfinding plan.

Questions and comments included:

- Paige Miller: WSDOT's proposed contribution to the multi-use trail may be too low.
  - Rob Berman: WSDOT does not plan to be involved in the design, permitting, or management of this project. It would be best for WSDOT to contribute to the multi-use trail and allow the ABGC to implement it.
- Michael Shiosaki: Perhaps the ABGC could implement portions of the initial project described with WSDOT's contribution. WSDOT has offered an amount for the ABGC to consider, potentially negotiate and determine how to use.
- Jack Collins: Will quieter pavement be included in the project design?
  - Kerry Ruth: Yes, quieter concrete is part of the preferred alternative. However, this does not meet federal regulations for noise mitigation so it is not considered a noise mitigation measure.

The potential for WSDOT to contribute to overall operations and maintenance in the Arboretum is pending further discussion with FHWA. The ABGC agreed that the SR 520 team should move forward with the projects discussed, though all the projects are subject to changes due to additional scoping, the project timelines, etc. WSDOT would most likely implement mitigation projects in the corresponding construction year when the impact occurs.

## Updates and next steps

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- The SR 520 team will return on Oct. 25 if the Muckleshoot Indian Tribe is available to meet. *10/19/2010 – the Muckleshoot Indian Tribe is not available on Oct. 25; the SR 520 team is working to find another date.*
- The SR 520 team will send their draft mitigation plan to the ABGC by Nov. 3 for discussion at the Nov. 10 ABGC meeting.
- The group discussed the potential for a second meeting in November to focus on addressing the ABGC's comments on the mitigation plan. Sandy Brooks suggested the week after Thanksgiving if a second meeting is needed.

## ABGC roundtable

- ABGC members provided positive feedback about the meeting discussions and process moving forward.

## Requests and action items

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- Provide definitions for high, medium and low levels of investment as used in the traffic management matrix. Distinguish between initial and long term investments. (SDOT)

- Coordinate with the city of Seattle law department to outline the steps needed for approval and implementation of tolling in the Arboretum. (SDOT)
- Michael Shiosaki will organize a field visit with the ABGC to the location of the existing ramps to evaluate their potential use as viewing platforms.
- Revise the Arboretum mitigation graphic to include the alignment of Arboretum Creek. (WSDOT) *10/21/2010 - This graphic has been updated with Arboretum Creek.*
- Nancy Belcher, Paige Miller, Rob Berman, and Shane Cherry can further discuss the compatibility of mitigation projects with SPU's overflow tank and bioswale separately.

## **Materials**

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- Project corridor environmental resource graphics – temporary and permanent effects to aquatic resources, wetlands, Section 4(f) and Section 6(f) resources.
- Map of proposed mitigation for I-5 to Medina project impacts.
- Matrix of potential Arboretum mitigation and enhancement project scopes and estimated costs.
- Map of potential mitigation projects in the Arboretum.