# AGENDA
# PLANNING COMMISSION
# REGULAR MEETING

**Thursday, April 21, 2011**
**7:00 p.m.**

Shoreline City Hall
Council Chamber
17500 Midvale Ave. N

| | | Estimated Time |
|---|---|---|
| **1.** | **CALL TO ORDER** | 7:00 p.m. |
| **2.** | **ROLL CALL** | 7:01 p.m. |
| **3.** | **APPROVAL OF AGENDA** | 7:02 p.m. |
| **4.** | **DIRECTOR'S COMMENTS** | 7:03 p.m. |
| **5.** | **APPROVAL OF MINUTES**<br>a. April 7 Regular Meeting | 7:08 p.m. |
| **6.** | **GENERAL PUBLIC COMMENT** | 7:10 p.m. |

*During the General Public Comment period, the Planning Commission will take public comment on any subject which is not of a quasi-judicial nature or specifically scheduled later on the agenda. Each member of the public may comment for up to two minutes. However, the General Public Comment period will generally be limited to twenty minutes. The Chair has discretion to limit or extend time limitations and the number of people permitted to speak. Speakers are asked to come to the front of the room to have their comments recorded and must clearly state their first and last name, and city of residence. The rules for procedure for Public Hearings before the Planning Commission are further defined in Resolution No. 182.*

**7.** **PUBLIC HEARING** *Quasi-Judicial Public Hearing* 7:15 p.m.

a. **Street Vacation of 256 square-foot section of Aurora Avenue at 18551 Aurora Avenue N**

1. Staff Overview and Presentation of Preliminary Staff Recommendation
2. Questions by the Commission to Staff
3. Public Testimony
4. Final Questions by the Commission
5. Deliberations
6. Vote by Commission to Recommend Approval or Denial or Modification
7. Closure of Public Hearing

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| **8.** | **DIRECTOR'S REPORT** | 8:15 p.m. |
| **9.** | **UNFINISHED BUSINESS** | 8:20 p.m. |
| **10.** | **NEW BUSINESS** | |
| | a. **Urban Tree Canopy** | 8:25 p.m. |
| | b. **Prepare for joint-meeting with City Council** | 8:55 p.m. |
| **11.** | **REPORTS OF COMMITTEES & COMMISSIONERS/ANNOUNCEMENTS** | 9:25 p.m. |
| **12.** | **AGENDA FOR** May 5 | 9:28 p.m. |
| **13.** | **ADJOURNMENT** | 9:30 p.m. |

*The Planning Commission meeting is wheelchair accessible. Any person requiring a disability accommodation should contact the City Clerk's Office at 801-2230 in advance for more information. For TTY telephone service call 546-0457. For up-to-date information on future agendas call 801-2236.*

# WHO WE ARE

The Shoreline Planning Commission is a 7-member volunteer advisory body to the City Council. The purpose of the Planning Commission is to provide guidance and direction for Shoreline's future growth through continued review and improvement to the City's Comprehensive Plan, Development Code, shoreline management, environmental protection and related land use documents. The Planning Commission members are appointed by the City Council and serve a four year term.

# WHAT IS HAPPENING TONIGHT

Planning Commission meetings may have several items on the agenda. The items may be study sessions or public hearings.

### Study Sessions

Study sessions provide an opportunity for the Commissioners to learn about particular items and to have informal discussion with staff prior to holding a public hearing. The Commission schedules time on its agenda to hear from the public; however, the Chair has discretion to limit or extend time limitations and the number of people permitted to speak. The public is encouraged to provide written comment to the Commission; however, since Commissioners are volunteers and may not have time to check email every day, if written comments are not included in the agenda packet and are offered during a study session, they may not have time to read them until after the meeting.

### Public Hearing

The main purpose of a public hearing is for the Commission to obtain public testimony. There are two types of public hearings, legislative and quasi-judicial. Legislative hearings are on matters of policy that affect a wide range of citizens or perhaps the entire jurisdiction and quasi-judicial hearings are on matters affecting the legal rights of specific, private parties in a contested setting. The hearing procedures are listed on the agenda. Public testimony will happen after the staff presentation. Individuals will be required to sign up if they wish to testify and will be called upon to speak generally in the order in which they have signed. Each person will be allowed 2 minutes to speak. In addition, attendees may want to provide written testimony to the Commission. Speakers may hand the Clerk their written materials prior to speaking and they will be distributed. For those not speaking, written materials should be handed to the Clerk prior to the meeting. The Clerk will stamp written materials with an exhibit number so it can be referred to during the meeting. Spoken comments and written materials presented at public hearings become part of the record.

# CONTACTING THE PLANNING COMMISSION

Written comments can be emailed to plancom@shorelinewa.gov or mailed to Shoreline Planning Commission, 17500 Midvale Avenue N, Shoreline WA 98133.

*www.shorelinewa.gov/plancom*

# CITY OF SHORELINE

## SHORELINE PLANNING COMMISSION
## MINUTES OF REGULAR MEETING

April 7, 2011 Shoreline City Hall
7:00 P.M. Council Chamber

**Commissioners Present**
Chair Wagner
Vice Chair Perkowski
Commissioner Behrens
Commissioner Broili
Commissioner Kaje
Commissioner Moss

**Staff Present**
Joe Tovar, Director, Planning & Development Services
Steve Cohn, Senior Planner, Planning & Development Services
Paul Cohen, Senior Planner, Planning & Development Services
Julie Underwood, City Manager
Jessica Simulcik Smith, Planning Commission Clerk

**Commissioners Absent**
Commissioner Esselman



**CALL TO ORDER**

Chair Wagner called the regular meeting of the Shoreline Planning Commission to order at 7:01 p.m.

**ROLL CALL**

Upon roll call by the Commission Clerk the following Commissioners were present: Chair Wagner, Vice Chair Perkowski and Commissioners Behrens, Broili, Kaje and Moss. Commissioner Esselman was absent.

**APPROVAL OF AGENDA**

The agenda was approved as presented.

**DIRECTOR'S COMMENTS**

Mr. Tovar introduced Julie Underwood, new City Manager. Ms. Underwood said she was present to introduce herself and to express her excitement to serve her community in this new role. She said she has been at the City for almost nine years and has been fortunate to see it grow and shape into the

present community. She said she is excited to be part of Shoreline's bright and exciting future. She also thanked the Commission for the important role they play in shaping the future of the community.

## APPROVAL OF MINUTES

The minutes of March 17, 2011 were approved as amended.

## GENERAL PUBLIC COMMENT

No one in the audience indicated a desire to address the Commission during this part of the meeting.

## STAFF REPORTS

### Study Session: Town Center Subarea Plan and Zoning Code

Mr. Tovar explained that the Subarea Plan would be adopted into the City's Comprehensive Plan via an amendment. The Development Code language would govern development in the subarea and must be consistent with and implement the Subarea Plan as well as other parts of the Comprehensive Plan.

Mr. Cohen explained that the proposed Development Code language is intended to implement the Town Center Vision, which consists of a number of goals and policies. He emphasized that sustainable development is a significant element of each of the policies, and the intent is that Town Center become an example of how all the larger components can work together to create sustainable development.



Mr. Tovar reviewed the changes that are proposed for the Town Center Subarea Plan:

- **Policy TC-2** was changed to add the term "green infrastructure." The intent is that public projects would be used as models of green infrastructure for private projects in Town Center.

- **Policy TC-4** already talked about the City's desire to increase housing choices and opportunities for moderate-cost housing. However, new language has been added to take a more active tone. It calls for reducing new housing construction costs and incentivizing affordable housing in Town Center by reducing parking requirements and pursuing an aggressive program of property tax exemptions.

- **Policy TC-16** has been amended to provide more detail about how the City can protect the neighborhoods to the west and east. The language mirrors language in the Development Code about creating a medium-density buffer between the commercial uses in Town Center and the single-family neighborhoods east of Midvale Avenue. It also calls for orienting commercial uses west of Aurora Avenue North so their primary access and impacts are oriented towards Aurora Avenue North rather than towards the neighborhood west of Linden Avenue.

- **Policy TC-18** talks about the environmental and aesthetic value of trees. The proposed new language changes the focus to also promote a green built environment by adopting the U.S. Green Building Code and launching a recognition program for innovate private projects.

- **Policy TC-20** includes additional language to further explain what is meant by "enhancing the sustainability of adjacent residential neighborhoods." The language talks about targeted investments in green street links from the neighborhoods to Town Center and focused programs to enhance energy conservation and carbon neutrality in the neighborhoods.

- **Policy TC-21** mirrors the thinking of an earlier policy statement about reducing the parking requirements in recognition of the availability of transit. Bus rapid transit is scheduled to start in 2013 using the same system that was used for the new line south of Seattle.

- **Policy TC-23** picks up on the notion of a heritage walk connecting different venues in and near Town Center. Additional language was added to further emphasize this goal.

- **Policy TC-25** is related to the design review process, which has been discussed by the Commission on a number of occasions. Staff will propose changes in the Development Code to make the design review process as expedited and simple as possible by consolidating environmental review and design review into a single administrative process.



Mr. Cohen reviewed the outline for an entirely new section of the Code for the Town Center Subarea (Chapter 20.92). He explained that the idea is to build a community called "Town Center," by ensuring that what happens on the sites is relevant to what is happening on the street and that the neighborhoods are protected. He explained that, in addition to the proposed new language for Chapter 20.92, other sections of the Code must also be amended. Chapter 20.30.297 (Design Review Process) would be used for all sections of the code that refer to design review approval, including Chapter 20.50.021 (MUZ Design Review Amendments) and Chapter 20.91.040 (Ridgecrest Design Review Amendments). He reminded the Commission that the Mixed-Use (MUZ) Zone has been applied to many parts of the City, and the Town Center Subarea District would replace the MUZ Zone within the Town Center boundaries. Mr. Cohen recapped the following highlights from the Town Center District Code:

- Different street type orientations would be used such as boulevards (185th, 175th and Aurora Avenue), storefront (Firlands and Midvale Avenues), Green Link Streets (Linden and Stone), etc.
- The street type orientations would be tied to the different types of neighborhood protections, frontage, site, building and signage design.
- They are looking to strengthen east/west pedestrian connections from surrounding neighborhoods to the Town Center. The goal is to mitigate impacts and make Town Center an amenity to the surrounding neighborhoods.
- There will be clear thresholds to relieve some requirements for very small sites. The proposed requirements are extensive, and it would be difficult to meet all of them in the redevelopment of some of the smallest sites.

- Some requirements would be allowed to be combined but not reduced. For example, the plaza requirement could be combined with a walkway through the site, as long as the walkway and plaza both meet the requirements. Combining the requirements can often be more workable for the site and more pleasant for pedestrian access.
- Vehicle service and sales would only be allowed in Subzone TC-1.
- Requirement of new site and building standards in exchange for allowing greater development potential within the dimensional standards for the zones.
- There is a strong desire that commercial space be included in multi-family and mixed-use development, but some developers do not support adding commercial space because there is no market for it at this time. To address this issue, staff recommends the City require the development of commercial space that meets the standards for commercial uses, but not require commercial uses. If and when the market supports commercial uses, the spaces could be converted.
- The proposed language does not provide any incentives for height increases.
- There would be no density limits. Instead, the regulations focus on design - how the buildings relate to each other and how they accommodate the pedestrians and residents. Density will depend on how creative a developer can be with the spaces while meeting the City's requirements.

Mr. Cohen advised that the following changes were made since the Commission reviewed the proposed Development Code amendments in December:



- Language was added to require green infrastructure. In addition, the language anticipates that the green building code would be adopted in a few years. The goal is to create opportunities for green infrastructure in the future. For example, while it may not be appropriate for the City to require electric car charging stations when there is not sufficient demand, the regulations could require a developer to install the conduit so the site could be easily adapted when the demand changes.
- The area of the park at Town Center has been identified on the map.
- New language was included to address design review and threshold and decision criteria for Town Center and other areas that want to use the design review process.

Mr. Cohen briefly reviewed the differences between the current MUZ zone and the proposed Town Center District as follows:

- MUZ permits the same land uses as the previous Regional Business (RB) zoning, with some additional design standards. The Town Center District is more open about the range of uses, but provides a short list of prohibited uses.
- The maximum density in MUZ can potentially be 150 dwelling units per acre, and density in the Town Center District would be limited by the building envelope.
- The maximum height in MUZ is 65 feet, and the maximum height in three of the zones in the Town Center District would be 70 feet. Staff believes an additional five feet of height is necessary in order to get five stories on top of commercial space and allow room for topography change and roof design.

- The minimum height limit in MUZ is 35 feet, and there would be no minimum height in the Town Center District.
- The step back requirements would be slightly different in the Town Center District.
- There are setback requirements from non-residential zones in MUZ, but there is no need for a setback requirement between non-residential zones in the Town Center District.
- Both the MUZ and Town Center District require that parking areas and public gathering places be screened. However, the Town Center District also requires full and comprehensive street, site, building, signage, and neighborhood protection standards.
- Both the MUZ and Town Center District require design review.
- The development potential is about the same for both the MUZ and Town Center District, but the Town Center District may provide for a slight increase in residential density.

Mr. Cohen provided an updated zoning map and highlighted the changes. The TC-3 zone was expanded to include Gateway Plaza. In addition, the transition overlay along Linden Avenue would be shifted to provide a separation between the single-family residential zone and the Town Center District. He also noted that changes were made to the Street Type and Circulation Map. Some of the through connections were changed to emphasize the east/west connections. A connection has been identified on North 170th Street from the high school to the Interurban Trail. Consistent with a policy in the subarea plan, a pedestrian and vehicle connection was identified across Aurora Avenue North midway between North 185th and North 175th Streets. The plan foresees the possibility of a pedestrian connection and perhaps a through street from Linden Avenue to Aurora Avenue North and Midvale Avenue. The map also identifies the park boundaries. Rather than identifying certain corners, all corners are now considered potential high-visibility corners.



Mr. Cohen explained that design review approval would be required prior to any construction permits. He noted that the generic design review process is outlined in Chapter 20.30.297 and identifies design review approval as a Type A Action that can be granted by the Director upon finding that a proposal meets the requirements of the applicable code subsections. He noted that Chapter 20.30.298 outlines standards for approving design departures. He explained that just because a project can meet all of the standards, does not mean it works the best for the site. An applicant could request a departure from the design standards in order to accommodate a better project design. He emphasized that none of the dimensional standards (height, bulk, and setback) can be modified in the Town Center District.

Mr. Cohen said staff is also concerned about the transition overlays along the perimeter of the Town Center District and TC-4 (west side of Stone Avenue). In these areas, applicants seeking a departure from the design standards would be required to obtain a Type B Permit, which involves a neighborhood meeting, public notice and comment period.

Mr. Tovar provided each of the Commissioners with a paper copy of both the proposed and existing land use tables. He noted that, similar to most jurisdictions, the City's current Development Code includes numerous tables that provide a lot of details about the types of uses allowed in the zones. However, the proposed Land Use Table for the Town Center Subarea would implement a type of form-based code, which identifies specific standards related to form, signs, parking, setbacks, buffers, sight design details, etc. but is less specific about the types of uses allowed. He explained that a pure form-

based code would not even provide a table; it would merely list the prohibited uses and everything else would be permitted. The proposed Land Use Table represents a middle ground. The categories are broader and are simply listed as either permitted or prohibited. The existing land use tables could still provide additional information about the specific types of uses included in each of the categories. He reviewed that as per the proposed Land Use Table, all uses would be permitted in TC-1, TC-2 and TC-3, except motor vehicle and boat sales, automotive rental/leasing and automotive repair and services would only be allowed in TC-1. TC-4 is located on the west side of Stone Avenue, and only the uses listed in Chapter 20.41.20 (residential or group residences) would be allowed. He summarized that the goal of the new Land Use Table is to be simple, graphic and easy to use, recognizing that more detail is provided in the other tables referenced.

Vice Chair Perkowski asked how conditional use and special use permits identified in the other tables would apply to the Town Center Subarea. He suggested that rather than referring to other tables, they could provide definitions that identify the specific uses allowed in each of the categories. Mr. Tovar responded if they are going to repeat all of the allowed uses, they may as well use the existing tables. Another option is to provide additional verbiage in the preamble at the top of the page to make it clear that if uses are listed as permitted uses, no conditional use or special use permits would be required. Vice Chair Perkowski agreed that would help.

Chair Wagner pointed out that no office uses would be allowed in TC-4. She asked if this would prohibit live/work situations, as well. Mr. Tovar said the intent is to avoid introducing uses that are currently not allowed along Stone Avenue. Mr. Cohen pointed out that the current code allows home occupations in any residential dwelling unit that can meet the requirements. Mr. Tovar said some zones allow for the adaptive reuse of a single-family home for some type of commercial use, but because of the neighborhood's concern, staff is not recommending this type of use be allowed. He acknowledged the Commission could recommend the City Council consider introducing this concept on a low-scale, but the neighborhood would likely be very concerned.

Commissioner Kaje said that while he is not interested in changing the boundaries of the transition overlay every time a single property is rezoned, the language should allow for the transition overlay to be eliminated in areas where entire blocks of properties are rezoned to something other than residential. He suggested staff add language to address these types of situations. Mr. Tovar explained that if and when an area-wide rezone proposal for a band of residential properties is presented to the Planning Commission, staff would simultaneously recommend that the transition overlay be removed. The two changes could be adopted simultaneously. He said he does not believe additional language is necessary to address the issue. Mr. Cohen suggested they could define transition overlays as they relate to certain zones. This would tie any change in zoning to the adjacent transition area. Mr. Tovar agreed to consider the issue further and propose some options for the Commission to consider at a future meeting.

Commissioner Moss referenced the far northeast corner of the Town Center District, which is currently part of Sky Nursery, but also abuts onto some R-6 zoned properties. She questioned if the overlay transition should be expanded to include this area, as well. Mr. Cohen said the transition overlay is intended to apply to properties adjacent to R-4 or R-6 zoning. The properties referenced by Commissioner Moss on the east side of Midvale Avenue are zoned R-12. Chair Wagner noted there is

one property that is currently zoned R-6. Staff agreed to give some thought to addressing Commissioner Moss' concern.

The Commission viewed a computer-animated video prepared by staff to illustrate what the Fred Meyer site at the intersection of North 185 Street and Aurora Avenue North could look like if it were redeveloped based on the proposed Development Code amendments. Mr. Cohen emphasized that the video was not intended to represent an actual proposal. No project has been proposed at this time. He advised that staff would have a more polished version of the video for the Commission to view at the public hearing.

Chair Wagner requested additional information about the roadway relocation that would take place if the property at the intersection of North 182nd Street and Aurora Avenue North is vacated. Mr. Tovar said the language provided in the subarea plan regarding roadway relocation is conditioned upon support from the property owners and permission from the Department of Transportation to place a signal at the intersection. Chair Wagner asked if additional curb cuts would be allowed. Mr. Cohen identified where the three additional curb cuts would be located based on the video design. Mr. Tovar suggested that the Central Market at Mill Creek Town Center provides a good example of how the buildings might look from across the large parking lot.

Chair Wagner asked staff to provide more information about how the light at the intersection of North 185th Street would be improved. At this time, it only allows a few cars at a time off North 185th Street. This causes people to cut through Linden Avenue to catch the light at North 182nd Street. Mr. Tovar said the improvements at this intersection have not been completed.



Commissioner Kaje referenced Chapter 20.92.040.E, which requires all development proposals in the Town Center to conduct a traffic impact study and implement traffic mitigation measures. He questioned if that means every development proposal regardless of size. He observed that some of the other requirements have been adjusted for small properties. Mr. Cohen explained that the City's current policy is that the level of detail required in a traffic study increases as projects get larger. Commissioner Kaje asked if the City's general approach for traffic studies would be applied to Town Center or if it would make more sense to do a larger scale traffic study of the cumulative impacts. Mr. Tovar agreed that the traffic study requirement needs to be clearer, and staff would provide additional language for the Commission to consider at their next meeting.

Commissioner Kaje expressed some discomfort with Policy TC-4, which calls for an aggressive use of property tax exemptions to encourage moderate cost housing. In the current political climate there are those that believe that property tax exemptions are a good way to get things done, but others are worried about how to fund all the services the community wants if more exemptions are allowed. He said he would like more information to help him understand the dollar value to the City of a property tax exemption. Mr. Tovar explained that the property tax exemption allows the City to exempt a property owner from paying a property tax for up to 10 years, but there would actually be no net loss of property taxes paid city-wide. Instead, the property tax burden would be shifted to the rest of the community and everyone else's property taxes would go up by some increment. Commissioner Kaje asked if the exemption would only apply to the increase in value of the new development or on the value of the

entire property. Mr. Tovar agreed to research the issue further and provide a clear answer at a future meeting.

Commissioner Behrens agreed that the questions related to property tax exemptions are important, and he has been doing some research on the topic, as well. He said he heard that the City of Tacoma actually used a provision from the Washington Administrative Code (WAC) for a major redevelopment in their downtown. The provision allowed them to freeze the value of the properties, and the values of properties did not reset until they were actually developed. The existing businesses were not penalized and required to pay additional taxes because they were revalued. Mr. Tovar asked him to share his WAC citation. He also suggested the Commission discuss the tax exemption issue with the City's Economic Development Manager. Commissioner Behrens suggested the Commission invite the County Assessor to participate in a conversation with them about what he sees the affects of property tax exemptions to be. Mr. Tovar agreed to pursue this option, perhaps at a future joint City Council/Planning Commission meeting.

Vice Chair Perkowski noted that Sections 20.92.010.C and 20.92.010.D talk about a procedure for designating certain land use actions, yet the proposed language does not follow up with implementation. Mr. Tovar explained that the planned action ordinance is a mechanism created by the legislature in the State Environmental Policy Act (SEPA), which gives cities or counties the authority, when doing area-wide regulations or plans, to create by ordinance SEPA compliance for everything within the district at one time with an Environmental Impact Statement (EIS). Once the planned action ordinance has been adopted, any subsequent permits that are submitted are not subject to SEPA because SEPA has already been done at the area-wide level. He reminded the Commission that a planned action ordinance was done for North City several years ago. The environmental analysis identified the impacts and established ways to mitigate them. This approach saved applicants and the City from the uncertainty and expense of going through environmental review project by project. Mr. Tovar said the intent is that all properties within the Town Center Subarea would be part of the planned action ordinance. He agreed to work with the City Attorney to identify exactly where language should be inserted to implement this policy intent.

Vice Chair Perkowski referenced Section 20.92.015, which is the only section that talks about site improvements. As proposed, full site improvements would be required when the construction valuation exceeds 50% of the existing site and building valuation. He suggested this requirement is too vague and projects could be phased to avoid exceeding this threshold. He questioned if the threshold should have an associated time period. He also questioned if the 50% threshold is too high. Mr. Cohen said the City has used this practice since the Development Code was adopted in 2000. He agreed with the concern that a property owner could do a project piecemeal to avoid the threshold, but this has rarely happened. Vice Chair Perkowski pointed out that site improvements are important to the cohesiveness of redevelopment of Town Center, so perhaps the threshold should be more distinct or explicit. Mr. Tovar agreed to survey other jurisdictions in the region to see if they are moving away from the typical 50% practice. They would also provide information about the implications of lowering the threshold.

Commissioner Moss pointed out that the previous draft also included a threshold for buildings over 4,000 square feet that increased their square footage by 20%. This is no longer part of the proposed

language. Mr. Cohen said this language was intentionally removed. He explained that expanding an existing 4,000 square foot structure by 20% would result in 800 square feet of additional space. Therefore, it would be more straightforward to simply place the threshold at any building that expands beyond 800 square feet. However, staff also questioned how the City could justify using just one standard on sites that are significantly different. The intent was to simplify the language. Again, Mr. Tovar pointed out that tying development to a 50% threshold is a standard approach in local government.

Commissioner Behrens pointed out that when the area was developed, it was common to surround buildings with parking lots. This resulted in a lot of asphalt that is unattractive and does not encourage pedestrian access. It is oriented towards cars and is dangerous. He referenced Section 20.92.060.E and expressed his belief that the language related to parking reductions could be incorporated into an overall parking plan for Town Center. He suggested that whether they require ½ or 3 parking spaces per dwelling unit is not important. What is important is that they have adequate parking for the people who live, work and use the Town Center. He noted that the first thing a person wants to do when entering the Mill Creek Town Center main street is park and get out of their car because the area is attractive, pedestrian friendly, and you can move through the site faster on foot. He suggested this should be the vision for Town Center, too. Again, he suggested they consider parking on a broader scope. He said he particularly likes the idea of allowing developers to use other available parking to satisfy their parking requirement. They should not provide more parking than needed. He specifically suggested the provision (Section 20.62.060.E.1) that allows the Director to use a combination of the criteria when considering parking reductions should be much more specific.



Mr. Tovar said the purpose of the neighborhood meeting should be to reduce and if possible eliminate the parking and traffic impacts. He suggested that additional language could be added to invite surrounding property owners to submit written comments to the Director after the neighborhood meeting has been held. Mr. Cohen said the traffic impact study would work together and supplement the neighborhood meeting. Commissioner Behrens noted that many pieces in the proposed language refer to parking and traffic, and he suggested staff consider how they all relate to each other to come up with an overall plan. He expressed his belief that an overall parking plan would help garner community support for redevelopment that occurs within the Town Center Subarea Plan. Mr. Tovar stated that the City's Public Works Department meets with individual neighborhoods to conduct traffic evaluations. He suggested that a parking plan requirement be inserted into the Subarea Plan as a policy so it could become part of the Public Works Department's work program. Commissioner Behrens agreed that would be a good approach. Mr. Tovar agreed to prepare a proposed policy statement that provides direction to the Public Works Department.

Commissioner Behrens referenced Section 20.62.060.E.1.h, which calls for a neighborhood meeting to discuss the impacts of traffic and parking. Rather than merely holding a neighborhood meeting to discuss the traffic and parking impacts associated with a project, the neighborhood meeting should be used to discuss ways to eliminate potential impacts to a neighborhood. Again, he said the number of parking spaces required is irrelevant as long as there is enough to provide for the uses needed without spilling out into the neighborhoods. He noted that because there are no sidewalks and the streets are

narrow, allowing parking along the neighborhood streets would result in only one lane width for cars and a very dangerous situation for pedestrians.

Commissioner Behrens referenced 20.92.050.C.1.g, which states that when improved, Firlands Way shall expose and restore the brick road beneath the bed. He noted that many people are concerned about protecting this roadway, and he suggested that perhaps this requirement should be connected with the park process.

Commissioner Kaje expressed his belief that some of the proposed criteria for parking reductions (Section 20.92.060.E) naturally applies to residential and others to non-residential, but not both. For example, he noted that Item e (an off-street parking lot within ¼ mile radius) does not make sense unless visitors to Town Center are allowed to park their cars for days in a public parking area. Also, he noted that there are no properties within Town Center located less than ¼ mile from a transit stop. He suggested the criteria would serve better if it were parted out.

Commissioner Kaje said he compared the minimum off-street parking standards with what the current code requires. He observed that for certain types of uses, the .75 spaces per bedroom requirement is only half of the default requirements in the existing code. Currently, each one-bedroom unit would require 1.5 parking spaces. Allowing the proposed .75 per unit requirement to be reduced by half would result in only one quarter the number of spaces required by the current code. He asked staff to provide additional clarification of how the proposed reduction allowance would compare with the current code requirements.



Commissioner Moss expressed concern about using radius as a means for measuring a property's proximity to a bus stop. She suggested staff research Lakewood's method of using an index standard for walkability that takes into account how far a person actually has to walk to get to a bus stop. Although a bus stop might be located right behind a residential home, it may be blocked by a fence, a steep slope, etc. She agreed to provide more information regarding this option.

Commissioner Moss pointed out that Sections 20.92.060.B.1.e (Street Fronts) and 20.92.060.B.3.b (Boulevards) are basically the same language. She observed that, as currently proposed, it appears that parking would be allowed between the right-of-way and the building front façade on properties that are less than 100 lineal feet in width. Mr. Cohen agreed that is staff's intent. He referred to the North City Area where there are some very small lots with less than 100 lineal feet of frontage. Requiring a property owner to split a narrow lot between the building and parking lot may not be appropriate. The proposed language is intended to release some of the very small sites from some of the requirements that would prevent them from redeveloping. He noted that the current code provides an exemption for sites that are less than 80 feet wide. The intent is to give a little more leeway to address specific situations where it may be necessary to place the parking between the building and the sidewalk.

Commissioner Behrens voiced concern about allowing vehicles to park between the sidewalk and the building on the narrow lots since this would be contrary to the concept of walkability and aesthetically attractive development. Mr. Cohen pointed out that parking lots would also be allowed against the

sidewalks and building on lots wider than 100 lineal feet. Mr. Tovar added that the parking areas would be required to meet the landscaping and other requirements of the code.

Vice Chair Perkowski suggested the Subarea Plan should provide a more detailed map of the subarea. Mr. Tovar agreed to provide some alternatives at their next meeting.

Commissioner Moss requested clarification between the Type A and Type B design review processes. Mr. Tovar explained that in a Type A administrative process, a developer would submit an application that identifies how his/her proposal complies with the standards, and staff would review each proposal based on the criteria outlined in the code. Staff would approve proposals they find are consistent with the standards. The Type B process is similar, but notice would be required. He emphasized that the goal is to make the code language as predictable and certain as possible for the applicant, using the adopted standards to provide certainty and predictability for the neighborhood. Applicants within the TC-4 and overlay areas would be required to give notice if they propose a departure from the standards, giving the public an opportunity to comment.

Mr. Cohen explained that space has been reserved on the May 5th and May 19th agendas for continued Commission discussion and a public hearing on the Town Center Subarea Plan. He requested more specific direction about how the Commission wants to proceed. He said he anticipates the Commission would forward a final recommendation to the City Council on June 2nd. The Commission agreed to schedule a public hearing on May 5th. They could then provide further direction to staff and continue their discussion on May 19th. If necessary, the public hearing could also be continued to May 19th.



**PUBLIC COMMENT**

**Bob Phelps, President, Board of Trustees, Shoreline Historical Museum,** emphasized that regardless of the final plan that is selected for the Park at Town Center, it must include the red brick road, as is. The bricks were laid in 1913 and will be 100 years old in two more years. He expressed his belief that the road should be preserved for future generations.

**Victoria Stiles, Executive Director, Shoreline Historical Museum,** referred to a letter she submitted to the Commission and reiterated that she is very glad to see that "heritage" is part of the Town Center policy. She recognized it takes effort to give appropriate attention to the detail and that heritage is not always convenient. They really need a plan, such as a heritage and cultural overlay that addresses how the Town Center and the heritage of the area that lies at the heart of the Town Center would be integrated together. The heritage is a wonderful concept that should be applauded. She is delighted the museum would be working with the City on this effort. She expressed concern that if they continue to destroy what little is left of the physical presence of the City's heritage, there will be no heritage to walk on. She expressed her belief that the park design, which appears to be a separate process, should be part of the Town Center Subarea Plan.

**Janet Way, Shoreline, Shoreline Preservation Society,** congratulated the Commission on the work they and the staff have done so far. There are many good elements associated with the current plan. However, she did forward written concerns to staff regarding some of the options that have been put

forward for the park. She agreed with Ms. Stiles that the subarea plan and park planning processes should be integrated. Ms. Way said the Shoreline Preservation Society believes that heritage should have a substantial presence in the Town Center Plan, and she also suggested they consider a heritage overlay.

Ms. Way referred to a letter she submitted that provides examples of other cities that have heritage overlays, such as Snohomish. She suggested that Town Center needs an element that ties it all together and gives it a true sense of place. She likes the idea of a heritage walk to tie the red brick road to its historic roots and become an overarching project concept to provide a good foundation for future redevelopment. She said the Society recommends the Commission adopt a plan that connects the dots to tie the past, the present and the future together. There should be artistic representations that celebrate the uniqueness of this historic spot in Shoreline's past.

Ms. Way observed that the unique space owned by the City next to the red brick road would be a perfect location for an interpretive center. She summarized that the Town Center Park would be highly enhanced by taking advantage of the City's historic assets, and it would be a tragic error to uproot the red brick road. There are ways to repair it so it can remain in its current location since removing or rearranging the bricks would eliminate its historic prominence. She noted that the 32 points on the Aurora Avenue North Phase II Plan included the Red Brick Road in its current location. Moving it would be a breach of faith of Federal funding. She help up an aerial map of the entire park and suggested the City identify an overarching design that connects all of the elements together. She suggested that the design standards also include historic elements. In addition, she suggested the City pursue a "Main Street" designation from the Federal Government.



Ms. Way asked if street side cafes would be allowed in the Town Center area. If so, they must also provide protection for people who are using the outdoor dining spaces. Planter boxes should be allowed, as well, to make it pleasant. Food vendor carts would also make the Town Center a lively place. She offered a book about the history of Shoreline that was presented by Ms. Stiles to the City Council in 2005. She urged them to review the book.

**Boni Biery, Shoreline,** referred to the diagram provided by staff that talks about doing something that is viable, liveable and fair. She said she lives in the very northwest corner where the Town Center Subarea abuts R-6 zoned properties. Unlike other areas where the Town Center abuts single-family residential properties, the proposed setback would only be 15 feet. The residential properties along Linden would have a 15-foot setback plus the buffer of a 60-foot right-of-way. She expressed her belief that a small 15-foot setback in a residential situation would be unfair. She also said she does not believe it is fair that all of the same businesses allowed on Aurora Avenue would be allowed in this area without any of the protection afforded to the single-family residential properties on Stone Avenue. She requested the Commission look out for this little neighborhood and consider treating it differently. She suggested the City require notification to the owners of these residential properties when changes are proposed.

## DIRECTOR'S REPORT

Mr. Tovar reported that the City Council unanimously approved the Planning Commission's recommendation regarding the Subarea Plan for Aldercrest and the creation of a new zone.

Mr. Tovar announced that proposed legislation that would have given the City the authority, in the case of the Point Wells Project, to do the transportation piece of the Environmental Impact Statement (EIS), will not move forward. The Chair of the Senate Committee that heard the bill convened a meeting with City and County representatives to talk about how the issue could be dealt with. The outcome was an agreement that the City and the County would communicate and cooperate to process the EIS in Snohomish County along with other required permits. He summarized that the City would receive a copy of all the public comments and be invited to comment on the scope of the EIS, as well as the draft EIS. The agreement allows the City staff to advocate the City Council's identified position of managing traffic impacts by lowering the threshold for Richmond Beach Drive to 4,000 average daily trips. He advised that the agreement was announced in a City press release dated April 6, 2011.

Mr. Tovar reported that the Growth Hearings Board is due to issue its final decision regarding the City's appeal on April 25th. Whatever they do is academic at this point because the applicant has submitted a complete application and the project is now vested under the County code that existed at the time of application. The permit would not be affected if the County code is invalidated by the Board's April 25th decision. However, it would create an issue for Snohomish County to deal with because they would have a non-compliant code and plan.



Mr. Tovar explained that the Urban Center Code adopted by Snohomish County creates a process by which City of Shoreline and the Town of Woodway can enter into negotiations with the developer to create a developer or municipal agreement. Under the terms of the County's code, the City has 45 days to meet with the developer to work out an agreement. Shoreline and Woodway staff is currently meeting with the developer's representative to discuss what an agreement might look like. He reminded them that the City earlier adopted language into their Comprehensive Plan about the amount of traffic they believe is appropriate coming from Point Wells, and this language would be used as a script for future negotiations. He emphasized that the parties could mutually agree to extend the negotiation period if necessary. Mr. Tovar said that as per Snohomish County's code, any parties have the ability to decide not to pursue the development agreement further. The default would be writing the impact statement and conducting a public hearing on the urban center code permit before the County Hearing Examiner. The Examiner would conduct a quasi-judicial hearing and make a decision regarding the permit. The Examiner's decision could be appealed to the County Council.

Mr. Tovar announced that a joint City Council/Planning Commission meeting is scheduled for April 25th. One topic of discussion will be the Commission's work program for the next 12 to 18 months, a large piece of which will be the update of the Comprehensive Plan. He advised that the City Council discussed this topic at their retreat. At the joint meeting, they will share their concerns, ideas, and objectives, and provide clear direction about the process.

## UNFINISHED BUSINESS

There was no unfinished business on the agenda.

## NEW BUSINESS

### Election of Chair and Vice Chair

Ms. Simulcik Smith advised officers are elected and take office annually at the first regular meeting of the Commission in April. She opened the floor for nominations for Chair of the Planning Commission.

**VICE CHAIR PERKOWSKI NOMINATED COMMISSIONER WAGNER AS CHAIR OF THE PLANNING COMMISSION. COMMISSIONER BEHRENS NOMINATED COMMISSIONER PERKOWSKI. THERE WERE NO OTHER NOMINATIONS SO NOMINATIONS WERE CLOSED.**

**THE VOTE WAS UNANIMOUS IN SUPPORT OF COMMISSIONER WAGNER AS CHAIR OF THE COMMISSION.**

**COMMISSIONER KAJE NOMINATED COMMISSIONER PERKOWSKI AS VICE CHAIR OF THE PLANNING COMMISSION. THERE WERE NO OTHER NOMINATIONS, SO NOMINATIONS WERE CLOSED. THE VOTE WAS UNANIMOUS IN SUPPORT OF COMMISSIONER PERKOWSKI AS VICE CHAIR OF THE COMMISSION.**



## REPORTS OF COMMITTEES AND COMMISSIONERS/ANNOUNCEMENTS

None of the Commissioners provided reports during this portion of the meeting.

## AGENDA FOR NEXT MEETING

Mr. Cohn announced that a quasi-judicial hearing on a proposed street vacation permit has been scheduled for the April 21st meeting. The April 21st agenda would also include a discussion about the upcoming joint City Council/Planning Commission meeting. Ms. Simulcik Smith added that staff would also provide an update on the urban tree canopy. In addition, she asked the Commissioners to arrive at 6:40 p.m. for a group photograph.

## ADJOURNMENT

The meeting was adjourned at 9:32 P.M.

| | |
|---|---|
| Michelle Linders Wagner | Jessica Simulcik Smith |
| Chair, Planning Commission | Clerk, Planning Commission |

# PLANNING COMMISSION AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

| | |
|---|---|
| **AGENDA TITLE:** | **Public Hearing on Street Vacation for 18551 Aurora Avenue** |
| **DEPARTMENT:** | **Planning and Development Services** |
| **PRESENTED BY:** | **Steven Cohn, Senior Planner** |

## PROPOSAL

At the March 7, 2011 meeting, Council adopted Resolution 313 to authorize the Planning Commission to hold a public hearing on a proposed vacation of a small portion of Aurora Avenue. A public hearing notice and request for written comments on the street vacation was advertised in the Seattle Times on March 28, 2011. (Attachment 2) A hearing notice was posted adjacent to the site on March 21, and mailing to nearby property owners occurred on March 29.

The comment period closes the date of the Public Hearing. As of the date of publication of the staff report, one comment has been received.

The City of Shoreline is proposing a Right of Way vacation located at 18551 Aurora Avenue N. The proposed vacation is a 256 square foot strip of land that parallels Aurora Avenue adjacent to the address listed above. The property the city proposes to vacate is located west of the soon-to-be-constructed retaining wall and outside the limits of the built infrastructure for the Aurora Corridor 185th-192nd Improvement Project. As the Improvement Project reflects the planned final build out for the City in this section, the City does not foresee a need to retain this remaining piece of Right of Way.

The process for reviewing street vacations is described in Chapter 12.17 of the Shoreline Municipal Code and through State law (Chapter 35.79 RCW). State law requires a resolution (Attachment 3) fixing the time for a public hearing on the vacation. Under the current code, the Planning Commission is the body to hold an open record hearing, enter findings and make a recommendation based on the merits of the proposal and the decision criteria. The Council then holds a closed record meeting. No new testimony on the merits of the proposal will be taken by the Council in evaluation of the proposal.

## Background

A street vacation would transfer the ownership and control of the right-of-way to those adjacent properties which originally dedicated the street, with continuing public needs, such as utility easements, reserved as a condition of vacation.

**Approved By:** **Project Manager** **Planning Director ___**

Per Section 197-11-800(2)(h) of the Washington Administrative Code (WAC), SEPA review is not required as part of this proposal. WAC Section 197-11-800(2)(h) specifically indicates that the vacation of streets or roads is exempt.

**Criteria for Street Vacation Approval**

The criteria for approving Street Vacations are found in Shoreline Municipal Code 12.17.050. The Planning Commission may recommend approval of the Street Vacation if the following criteria are met:

1. The vacation will benefit the public interest.
2. The proposed vacation will not be detrimental to traffic circulation, access, emergency services, utility facilities, or other similar right-of-way purposes.
3. The street or alley is not a necessary part of a long-range circulation plan or pedestrian/bicycle plan.
4. The subject vacation is consistent with the adopted comprehensive plan and adopted street standards.

Staff analysis and additional background are included in Attachment 4 (Initial Findings of Fact and Conclusions). Written comments are included as Attachment 5.

## RECOMMENDATION

Staff concludes that the street vacation meets the criteria set in the SMC and that the Commission recommend approval of the vacation of approximately 264 feet of Aurora Avenue adjacent to 18551 Aurora Avenue with the following condition:

1. Easements currently recorded against the adjacent parcel for Aurora Project retaining wall soil nails, temporary construction and retaining wall should be reserved on the vacated portion of right-of-way as deemed necessary by the Shoreline Public Works Department.

## ATTACHMENTS

Attachment 1 - List of Exhibits
Attachment 2 - Notice of Public Hearing (Exhibit #2)
Attachment 3 – Resolution and Proposed Vacation Site Map (Exhibit #3)
Attachment 4 – Proposed Findings of Fact and Conclusions (Exhibit #4)
Attachment 5 - Comment Letter (Exhibit #5)

# PUBLIC HEARING RECORD

## Street Vacation for 18551 Aurora Avenue

*April 21, 2011 | List of Exhibits*

**Exhibit 1** April 21, 2011 Staff Report "Public Hearing on Street Vacation for 18551 Aurora Avenue"

**Exhibit 2** Notice of Public Hearing

**Exhibit 3** Resolution and Proposed Vacation Site Map

**Exhibit 4** Proposed Findings of Fact and Conclusions

**Exhibit 5** Email from Kerry Prosser, sent 4/6/11

# Notice of Public Hearing of the Planning Commission

**Applicant & Action Requested:** The City Council of the City of Shoreline has initiated a street vacation process for vacating 256 square feet of Aurora Avenue North.

**Location & Description of Project:** Street vacation for a 256 square-foot section of Aurora Avenue North right-of-way adjacent to 18551 Aurora Avenue North that is not needed for current or future road improvements.

**Public Hearing:** Interested persons are encouraged to provide oral and/or written comments regarding the above project at an open record public hearing to be held by the Shoreline Planning Commission on April 21, 2011, at 7:00 P.M. at City Hall, 17500 Midvale Avenue North, Shoreline, WA. If 50 percent of the abutting property owners file written objection to the proposed vacation with the City Clerk prior to the hearing, the vacation proceeding will terminate.

Copies of the materials and applicable codes are available for review at the City Hall, 17500 Midvale Avenue North. Contact Steven Cohn at 206-801-2511 or scohn@shorelinewa.gov.

Any person requiring a disability accommodation should contact the City Clerk at (206) 801-2230 in advance for more information. For TTY telephone service call (206) 546-0457. Each request will be considered individually, according to the type of request, the availability of resources, and the financial ability of the City to provide the requested services or equipment.

# RESOLUTION NO. 313

**A RESOLUTION OF THE CITY OF SHORELINE, WASHINGTON, INITIATING REVIEW OF A STREET VACATION FOR A 256 SQUARE FEET AURORA AVENUE NORTH RIGHT-OF-WAY ADJACENT TO 18551 AURORA AVENUE NORTH; AND FIXING A PUBLIC HEARING DATE FOR THE VACATION**

WHEREAS, the City Council may initiate a street vacation review by a resolution of intent under SMC 12.17.040 in lieu of a petition from two-thirds of abutting owners; and

WHEREAS, the City has identified a need to vacate a small portion of Aurora Avenue North adjacent to 18551 Aurora Avenue North to resolve an existing building encroachment in the existing right-of-way and the release of surplus and unusable right-of-way to private use; and

WHEREAS, the Council finds that a public hearing prior to consideration of final action shall be set before the Shoreline Planning Commission; NOW, THEREFORE

**BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SHORELINE, WASHINGTON AS FOLLOWS:**

**Section 1. Vacation Proposed.** The City Council declares its intent to consider the vacation of that portion of Aurora Avenue North adjacent to 18551 Aurora Avenue North described in Attachment A and depicted in Attachment B, following notice to the public and abutting owners as required by law and a public hearing.

**Section 2. Hearing Date.** A public hearing to take public comment on the vacation described in Section 1 is hereby set before the Shoreline Planning Commission for Thursday, April 21, 2010, to commence at 7:00 p.m., or as soon thereafter as the hearing may be held, in the Council Chambers at 17500 Midvale Avenue North, Shoreline, Washington 98133. Following the public hearing, the City Council shall consider the hearing record and the recommendation of the Planning Commission at a closed record hearing and take such action in regard to the vacation as may be deemed appropriate.

**Section 3. Notice of Hearing.** The City Clerk shall cause to be posted a notice containing a statement that the vacation has been initiated by the City Council describing the right-of-way proposed to be vacated, and the time and place of the hearing to consider the vacation at the times and locations set forth in SMC 12.17.020. The Notice shall further state that if 50 percent of the abutting property owners file written objection to the proposed vacation with the City Clerk prior to the Planning Commission hearing, the vacation proceeding will terminate.

**ADOPTED BY THE CITY COUNCIL ON MARCH 7, 2011.**

Keith A. McGlashan, Mayor

**ATTEST:**

Scott Passey
City Clerk

# EXHIBIT A

PARCEL 407

PERMANENT RIGHT OF WAY VACATION BEING A PORTION OF THE EXISTING AURORA AVE NORTH RIGHT OF WAY TO BE CONVEYED TO THE OWNERS OF THE HEREINAFTER DESCRIBED TRACT "X" LOCATED IN THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, SECTION 6, TOWNSHIP 26 NORTH, RANGE 4 EAST, W.M., CITY OF SHORELINE, KING COUNTY, WASHINGTON; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF SAID AURORA AVE NORTH RIGHT OF WAY LYING WITHIN THE FOLLOWING DESCRIBED LINE: BEGINNING AT A POINT ON THE EAST LINE OF SAID TRACT "X" OPPOSITE ENGINEERS STATION 274+20.09 AND 60.00 FEET WESTERLY MEASURED AT RIGHT ANGLES THEREFROM ON THE CENTERLINE OF AURORA AVENUE NORTH AS SHOWN ON THE RECORD OF SURVEY RECORDED UNDER AUDITOR'S FILE NUMBER 20080305900001, RECORDS OF KING COUNTY; THENCE EASTERLY TO A POINT OPPOSITE ENGINEERS STATION 274+20.09 ON SAID CENTERLINE AND 59.59 FEET WESTERLY THEREFROM; THENCE NORTHEASTERLY TO A POINT OPPOSITE ENGINEERS STATION 274+21.99 ON SAID CENTERLINE AND 58.48 FEET WESTERLY THEREFROM; THENCE NORTHERLY TO A POINT OPPOSITE ENGINEERS STATION 275+61, MORE OR LESS, ON SAID CENTERLINE AND 57.87 FEET WESTERLY THEREFROM; THENCE WESTERLY TO THE NORTHEAST CORNER OF SAID TRACT "X" OPPOSITE ENGINEERS STATION 275+61, MORE OR LESS, ON SAID CENTERLINE AND 60.00 FEET WESTERLY THEREFROM; THENCE SOUTHERLY ALONG THE EAST LINE OF SAID TRACT "X" TO THE POINT OF BEGINNING, AND THE TERMINUS OF THIS LINE.

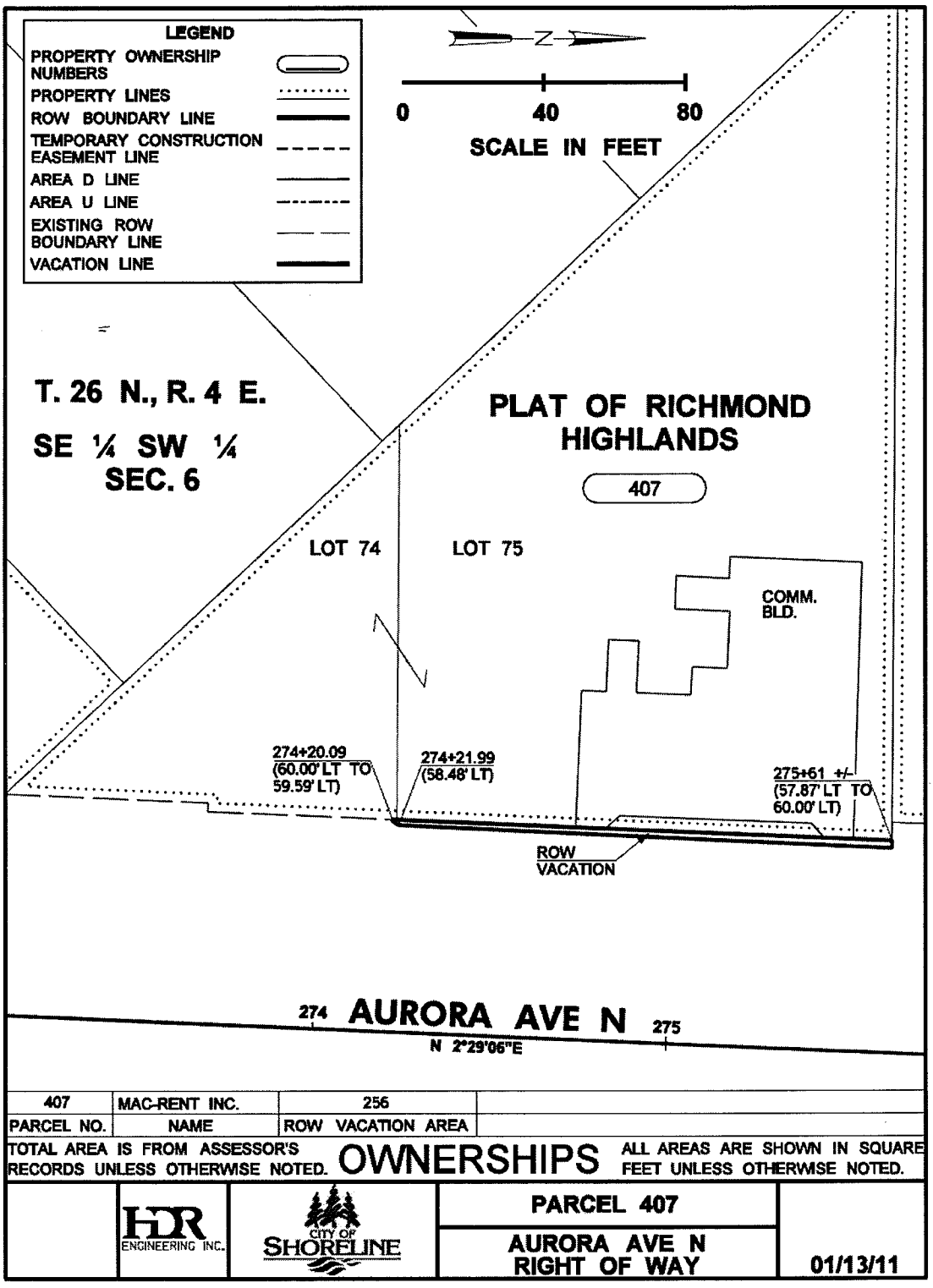
CONTAINING 256 SQUARE FEET MORE OR LESS.

1/17/2011

MICHAEL C. ROOT
STATE OF WASHINGTON
32507
REGISTERED
PROFESSIONAL LAND SURVEYOR

| | | | | |
|---|---|---|---|---|
| INCA ENGINEERS INC. / HDR ENGINEERING INC. | | CITY OF SHORELINE | PARCEL 407 | |
| | | | AURORA AVE N RIGHT OF WAY | 01/17/11 |

**EXHIBIT B**


LEGEND
PROPERTY OWNERSHIP NUMBERS
PROPERTY LINES
ROW BOUNDARY LINE
TEMPORARY CONSTRUCTION EASEMENT LINE
AREA D LINE
AREA U LINE
EXISTING ROW BOUNDARY LINE
VACATION LINE
N
0
40
80
SCALE IN FEET
T. 26 N., R. 4 E.
SE ¼ SW ¼
SEC. 6
PLAT OF RICHMOND HIGHLANDS
407
LOT 74
LOT 75
COMM. BLD.
274+20.09 (60.00' LT TO 59.59' LT)
274+21.99 (58.48' LT)
275+61 +/- (57.87' LT TO 60.00' LT)
ROW VACATION
274 AURORA AVE N 275
N 2°29'06"E
407 | MAC-RENT INC. | 256
PARCEL NO. | NAME | ROW VACATION AREA
TOTAL AREA IS FROM ASSESSOR'S RECORDS UNLESS OTHERWISE NOTED.
OWNERSHIPS
ALL AREAS ARE SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.
HDR ENGINEERING INC.
CITY OF SHORELINE
PARCEL 407
AURORA AVE N RIGHT OF WAY
01/13/11

**CITY OF SHORELINE**
**PROPOSED FINDINGS, CONCLUSIONS AND RECOMMENDATION**
**Street Vacation at 18551 Aurora Avenue N.**

## PROJECT INFORMATION SUMMARY

| | |
|---|---|
| **Project Description:** | A street vacation of a 256 square foot portion of Aurora Avenue N. |
| **Project File Number** | #201857 |
| **Project Address:** | 18551 Aurora Avenue N., Shoreline, WA |
| **Petitioner:** | N/A |
| **SEPA Threshold:** | Street Vacations are categorically exempt from SEPA |
| **Staff Recommendation:** | Approval |

## FINDINGS OF FACT

1. On March 7, 2011 the City Council initiated a vacation of a 256 sq. ft portion of Aurora Ave. N by passage of Resolution No. 313. The proposed vacation abuts the property located at 18551 Aurora Ave. N. and is depicted and described in Attachments A and B attached hereto. Resolution No. 313 also set a hearing before the Planning Commission for its recommendation on April 21, 2011.

2. The process for reviewing street vacations is described in Chapter 35.79 RCW codified by the City of Shoreline in Chapter 12.17 of the Shoreline Municipal Code.

3. Notice of the vacation hearing was posted on March 25, 2011, at least 20 days before the hearing, and mailed to owners of property within 500 feet of the proposed vacation on March 29, 2011, at least 15 days before the hearing. No written comments or protests have been filed with the City in opposition to the vacation, and any received prior to April 21 will be placed into the record at the Planning Commission hearing.

7. Street vacations are categorically exempt from SEPA under WAC 197-11-800(2)(h).

8. On April 21, 2011, the Planning Commission held the open record hearing on the proposed street vacation.

9. During the survey of the Aurora Project N 185$^{th}$-192$^{nd}$ Project it was discovered that structural buttresses extending the height of the multi-level office building located at 18551 Aurora Ave. N. partially encroached into the existing Aurora Ave right of way. The building is of newer construction

with a long useful life and is not likely to be remodeled in the foreseeable future such that the encroachment would be removed.

10. The City had a surplus of right of way along the frontage of this property due to the elevation of the property on the north side of Aurora. There were easements acquired from this parcel including a temporary access easement and soil nail easement needed to construct and provide lateral support for a new project retaining wall. The wall itself was located well within existing right-of-way.

11. As part of the settlement for acquiring the easements the City and owner agreed the City would initiate a resolution method vacation of a right of way of a narrow strip sufficient to include the encroachment of the building within the vacated portion to be added to the parcel while leaving enough right of way to maintain drainage behind the new public retaining wall. If the vacation were not approved, other solution would have to be found. The owner has agreed to pay compensation required by city regulations for the vacation should it be approved.

12. The City has determined that the proposed vacation is surplus to the needs of the Aurora Project under construction and future right of way or utility needs. In addition the property is difficult to access from Aurora for maintenance due to its elevation separation from the Aurora sidewalk but is easily maintained as part of the private property.

13. The Shoreline Development Code permits zero front yard setbacks from the final Aurora Project design. Releasing excess right of way outside this final design promotes this goal of development at the back of street improvements and has surplus right of way has been released where it has occurred in the first mile of the Aurora Project.



## CONCLUSIONS

1. The notice and meeting requirements in SMC 12.17.020 have been met.

2. *CRITERIA FOR STREET VACATION APPROVAL*

The criteria for approving Street Vacations are described in Shoreline Municipal Code 12.17.050:

*CRITERION 1*

*The vacation will benefit the public interest.*

The public has an interest in efficient use of land, smart right-of-way design, potential economic development; all are anticipated to be met by this street vacation. The public will benefit from placing excess right-of-way land in private

hands for potential redevelopment. Control of hazards and maintenance can be more efficiently performed if joined to the private property, resulting in public safety, reduced City liability, and improved roadside appearance along Aurora.

This criterion has been met by the proposed vacation.

CRITERION 2
The proposed vacation will not be detrimental to traffic circulation, access, emergency services, utility facilities, or other similar right-of-way purposes.

This vacation is physically isolated from right of way uses by a grade separation resulting from the new retaining wall. Therefore there are no impacts to right of access, circulation, or emergency services. All utilities have been relocated within the Aurora project design outside the vacation area. No existing utility easements encumber the vacation area according the title reports reviewed as part of the Project acquisition process. All utilities have been contacted and none have requested public utility easements over the vacation area.

This criterion has been satisfied.

CRITERION 3
The street or alley is not a necessary part of a long-range circulation plan or pedestrian/bicycle plan.



The proposed vacation area is not part of a long-range circulation plan or pedestrian/bicycle plan. The City of Shoreline is currently designing improvements to Aurora Avenue North, immediately west of the roadway segment proposed for vacation. The Aurora Corridor Improvement Project is a three-mile long roadway improvement plan that includes construction of BAT lanes, facilities for improved pedestrian and vehicle safety, and operational improvements for vehicular movement. The improvements to Aurora Avenue North will incorporate the construction of pedestrian facilities, including a seven-foot wide sidewalk and four foot amenity zone separating the sidewalk from the transit lanes. All project improvements are being fully accommodated within the existing right of way outside of the proposed vacation except for the easements needed for the retaining wall, soil nail and temporary construction access for the wall. The proposed vacation property should be conveyed subject to these easements.

The proposal, conditioned by reservation of necessary retaining wall, soil nail and temporary construction easements, meets these criteria

CRITERION 4
The subject vacation is consistent with the adopted comprehensive plan and adopted street standards.

There are no policies in the Comprehensive Plan that specifically address street vacations. The following policies do have application to the proposed vacation:

Goal LU VI: Ensure that adequate land is designated for commercial areas that serve community and regional based markets and that these areas are aesthetically pleasing and have long-term economic vitality.

Goal LU VII: Increase the vitality and economic development in the North City and Aurora Corridor business areas through a public/private effort.

Goal LU IX: Increase the City's role in economic development for the Aurora Corridor.

Goal ED II: Support economic development and retail and office activity so as to maintain sustainable sources of revenue.

ED 15: Support and retain small businesses for their jobs and services that they provide to the community.

Vacation of the road would facilitate redevelopment and retention of the current office building and avoid economic waste if the encroachment were removed. The vacation will facilitate maintenance of the front of the building and allow private maintenance of the vacation area, which would otherwise have a low priority for the City.



This criterion has been satisfied.

## RECOMMENDATION

Staff recommends that this petition for street vacation be approved, with the following conditions.

1. Easements currently recorded against the adjacent parcel for Aurora Project retaining wall soil nails, temporary construction and retaining wall should be reserved on the vacated portion of right-of-way as deemed necessary by the Shoreline Public Works Department.

ATTACHMENTS

Attachment A: Proposed Vacation Legal Description

ATTACHMENT A

PARCEL 407

PERMANENT RIGHT OF WAY VACATION BEING A PORTION OF THE EXISTING AURORA AVE NORTH RIGHT OF WAY TO BE CONVEYED TO THE OWNERS OF THE HEREINAFTER DESCRIBED TRACT "X" LOCATED IN THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, SECTION 6, TOWNSHIP 26 NORTH, RANGE 4 EAST, W.M., CITY OF SHORELINE, KING COUNTY, WASHINGTON; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF SAID AURORA AVE NORTH RIGHT OF WAY LYING WITHIN THE FOLLOWING DESCRIBED LINE: BEGINNING AT A POINT ON THE EAST LINE OF SAID TRACT "X" OPPOSITE ENGINEERS STATION 274+20.09 AND 60.00 FEET WESTERLY MEASURED AT RIGHT ANGLES THEREFROM ON THE CENTERLINE OF AURORA AVENUE NORTH AS SHOWN ON THE RECORD OF SURVEY RECORDED UNDER AUDITOR'S FILE NUMBER 20080305900001, RECORDS OF KING COUNTY; THENCE EASTERLY TO A POINT OPPOSITE ENGINEERS STATION 274+20.09 ON SAID CENTERLINE AND 59.59 FEET WESTERLY THEREFROM; THENCE NORTHEASTERLY TO A POINT OPPOSITE ENGINEERS STATION 274+21.99 ON SAID CENTERLINE AND 58.48 FEET WESTERLY THEREFROM; THENCE NORTHERLY TO A POINT OPPOSITE ENGINEERS STATION 275+61, MORE OR LESS, ON SAID CENTERLINE AND 57.87 FEET WESTERLY THEREFROM; THENCE WESTERLY TO THE NORTHEAST CORNER OF SAID TRACT "X" OPPOSITE ENGINEERS STATION 275+61, MORE OR LESS, ON SAID CENTERLINE AND 60.00 FEET WESTERLY THEREFROM; THENCE SOUTHERLY ALONG THE EAST LINE OF SAID TRACT "X" TO THE POINT OF BEGINNING, AND THE TERMINUS OF THIS LINE.



CONTAINING 256 SQUARE FEET MORE OR LESS.

1/17/2011

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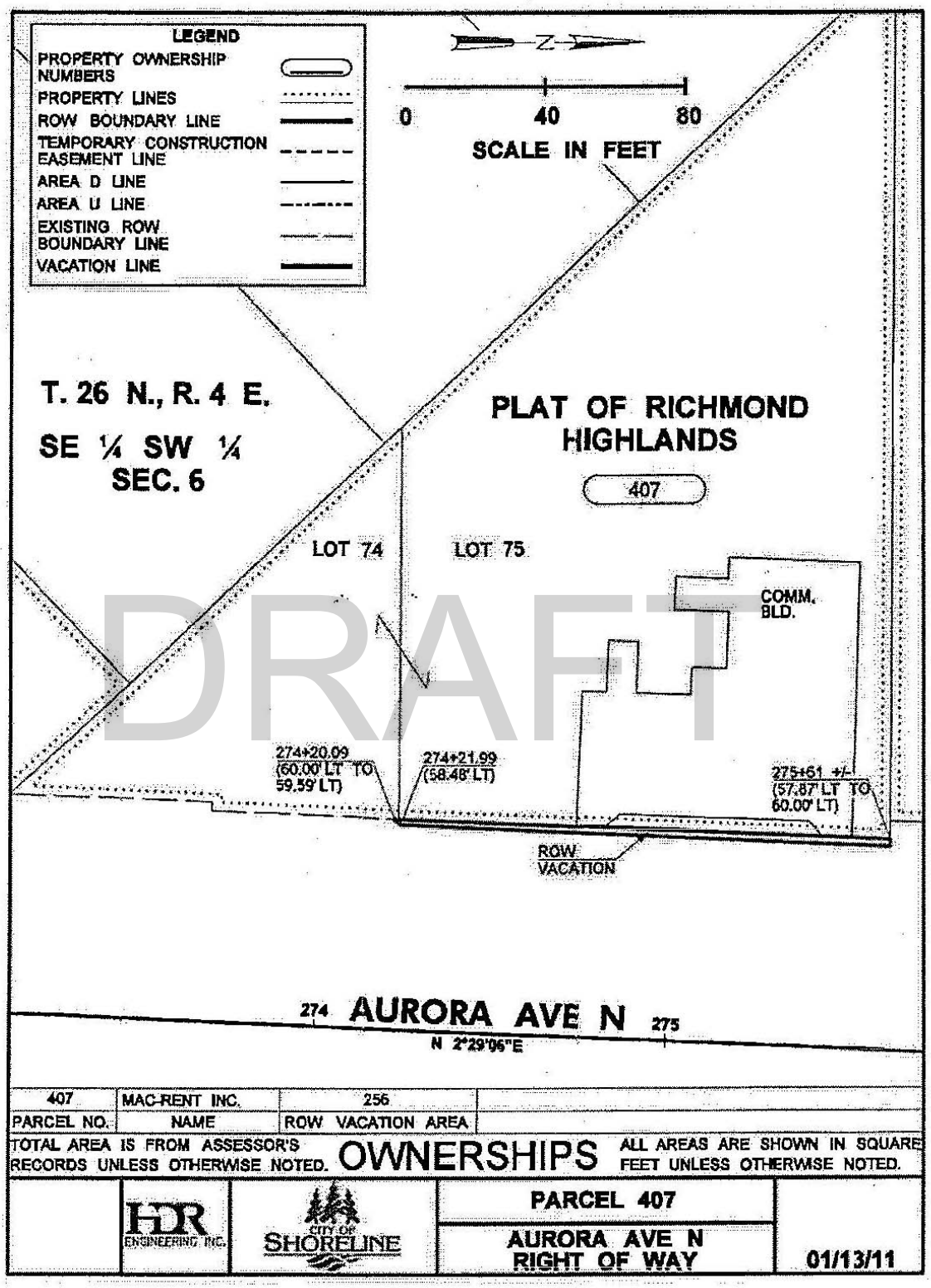
| | | | | |
|---|---|---|---|---|
| NCA ENGINEERS INC. | HDR ENGINEERING INC. | CITY OF SHORELINE | PARCEL 407<br>AURORA AVE N<br>RIGHT OF WAY | 01/17/11 |

ATTACHMENT B



Comment from Kerry Prosser

From: Kerry Prosser [kerryp@prosserpiano.com]
Sent: Wednesday, April 06, 2011 11:37 AM
To: Steve Cohn
Subject: RE: questions about street vacation

Thank you, appreciate your feedback!

Kerry

-----Original Message-----
From: Steve Cohn [mailto:scohn@shorelinewa.gov]
Sent: Wednesday, April 06, 2011 9:18 AM
To: kerryp@prosserpiano.com
Cc: John Vicente
Subject: RE: questions about street vacation

Kerry,
The street vacation only affects the property at 18551 Aurora (the MacPhearson Building). It doesn't go as far south as the Subway building, and therefore does not affect your property (which is south of there). As part of the Aurora re-build, the city determined how much right-of-way it needs; adjacent to the MacPhearson Building (which is up on a hill), the existing right-of-way extends into the hillside. It turns out that the footings of the MacPhearson Building are either close to or at the edge of the right-of-way, and since the city doesn't need the extra right of way, a street vacation request is being processed so the extra property (approx
260+/- square feet) can be acquired by the owners of the MacPhearson Building.

If you have specific questions about the Aurora project at the 185th and Aurora intersection, probably the best person to contact is John Vicente, the project manager. His email is jvicente@shorelinewa.gov.

Feel free to contact me if you have any other questions about the street vacation.

Steve Cohn
Senior Planner

-----Original Message-----
From: Kerry Prosser [mailto:kerryp@prosserpiano.com]
Sent: Tuesday, April 05, 2011 4:46 PM
To: Steve Cohn
Subject: questions about street vacation

Hi Steven, I am the owner of Prosser Piano which is located at 185th and Aurora. I received your noticed about street vacation of right of way adjacent to 18551 Aurora. Can you tell me in what ways this would affect my property?

Thank you,

Kerry

Kerry Prosser
Prosser Piano & Organ
13400 Interurban Ave. So
Tukwila, Wa 98168
Tukwila Showroom 206-439-9138

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CITY OF SHORELINE

# Memorandum

**DATE:** April 14, 2011

**TO:** Shoreline Planning Commission

**FROM:** Joseph W. Tovar, FAICP, Planning and Development Services Director
Paul Cohen, Senior Planner

**RE:** Urban Tree Canopy Survey Results

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## Introduction

This study session's purpose is to present and discuss the findings of the consultant's city-wide urban tree canopy (UTC) survey and analysis. The Planning Commission has been studying the amendments to the tree code for the past two years. In October 2010 the Planning Commission put the amendments on hold pending further direction from the City Council. The City Council will hear a presentation by the consultant who prepared the UTC survey during its April 18 meeting. With this baseline information in hand, the Council will consider at its May 9, 2011 meeting if and how much to modify the scope of the tree regulations that the Planning Commission will conduct hearings on in the coming months.

## Background

In early 2009, the City Council directed Planning Commission and staff to propose updated development regulations for trees and provided direction on nine decision modules for this topic. The first decision module was to:

> *Establish a baseline urban forest canopy citywide. This baseline would provide the context for the Council to make a policy decision, most likely in 2010, about a long-range City target for desired tree canopy. The target could be no-net loss of a citywide percentage of canopy or an increase or decrease of some magnitude, keyed to specific schedules. With such a baseline and target in place, the City could then monitor the overall City canopy, say every 5 years, to assess its health and identify any further programs or code amendments as needed.*

City Council, Planning Commission and staff revisited the City's tree regulations in 2009 and 2010. One of the reasons for considering revisions to these regulations was public

perception that the City is losing significant trees and tree canopy at a significant rate. The Shoreline Environmental Sustainability Strategy also provides strategic direction on urban forest and tree canopy management under Guiding Principle 8: Proactively manage and Protect Ecosystems and Key Program Strategy 10: Structure and prioritize natural resources enhancement.

Council requested a baseline measure of tree canopy to provide context for the pending tree regulation amendments.

This report and presentation is the requested baseline measure and additional analysis of the City's tree canopy prepared by AMEC Earth & Environmental, Inc. AMEC Earth & Environmental, Inc. and their project manager for this tree canopy assessment have conducted over 20 urban tree canopy assessments for municipalities across the country and including work for Seattle, Mercer Island, Renton and Thurston County.

Staff obtained a $10,000 grant from the Washington State Department of Natural Resources Urban & Community Forestry program to complete this baseline assessment. Consultants from AMEC Earth & Environmental, Inc. were contracted to complete an Urban Tree Canopy (UTC) Assessment for the City of Shoreline. The results of this assessment will be presented at the Planning Commission meeting of April 21.

The UTC Assessment report presented here is the baseline assessment of Shoreline's urban tree canopy. It will help inform Council and Planning Commission decisions on the scope and urgency of amendments to the City's tree regulations and in setting future goals for UTC.

## Discussion

### A. Results

Shoreline has 31% tree canopy coverage as of July 2009. This is a slight increase in canopy from 1992, estimated at 30%, and essentially the same as in 2001, estimated at 31%. No discernable loss of tree canopy has occurred over the past 17 years.

Overall Shoreline has 56% vegetative cover comprised of grass, shrubs, and trees. Almost three quarters of Shoreline's tree canopy is located in the low density residential zones, an area that represents approximately two thirds of the total land area in the City. Approximately 46% of the City is impervious surfaces, including approximately 2% known to be located below existing tree canopy.

The consultant also estimated the maximum possible urban tree canopy. The methodology developed by the US Forest Service Northern Research Station assumes that trees could be added to all vegetated and impervious surface areas in the City excluding roads and buildings. This estimation is the maximum

tree canopy that could be obtained if trees were planted in all areas where it is biophysically possible to plant a tree. They estimate that theoretically an additional 44% tree canopy is possible, over the existing 31% existing canopy citywide. This figure is largely academic rather than practical because it does not take into consideration factors such as personal homeowner preferences, underlying land uses, solar access, recreational field designations, or parking requirements.

The UTC provides insight into which land use areas may provide the biggest opportunities to increase tree canopy. The costs of maintaining the existing tree canopy are significant. In 2003, the City undertook an Urban Forest Plan project, which inventoried 14,226 trees on the City's right-of-way throughout the City, not including the Highlands and most of Innis Arden. The Plan provides management recommendations and identified potential planting sites. This Plan estimated an annual maintenance cost for these trees at approximately $470,000, including pruning, hazard removal and replacement.

Significant tree management issues, such as the threat of tree loss due to invasive species and planting and management needs to provide a healthy forest understory and ensure diverse tree replacement as these forests age, have also been identified in the City's major forested parks. The Parks Department has just started implementing vegetation management plans for these parks, and projects can range in cost from a few thousand to $10,000 per park per year to address restoration sites of approximately one quarter acre.

Adding 1% to the existing tree canopy would take approximately 6,000 trees with a mature crown diameter of 30-feet and this increase alone could provide a stormwater benefit of almost $500,000 (based on the CITYgreen estimate model) and would sequester an extra 35 tons of carbon every year.

Reaching a possible long-term goal of 40% total tree canopy would require maintaining the existing tree canopy *and* adding approximately 46,000 trees at an average 30-foot crown diameter. Based on the 2003 Urban Forest Plan, the average planting cost per tree was $264 per tree. At that rate, planting 46,000 trees would cost over $12 million, plus the additional maintenance costs for those trees.

In an effort to quantify the monetary value to the City of the public benefits provided by tree canopy, the value of these ecosystem services was estimated using a nationally accepted modeling tool – CITYgreen developed by American Forests. Shoreline's 2009 tree canopy provides:

- Approximately $460,000 in indirect cost savings due to air quality improvement;
- 770 tons of annual carbon sequestration (removal of carbon from the atmosphere and storage as new tree growth);

- $900,000 annual cost savings for stormwater storage capacity that does not have to be built; and
- Reductions of 3% to 10% in regulated stormwater pollutants, when compared to the scenario of no tree cover, in a typical 2 inch, 24 hour storm.

## B. Limitation of this Assessment

The UTC Assessment conducted for the City of Shoreline by AMEC Earth & Environmental, Inc. does provide an accurate assessment of total tree canopy citywide, based on 2009 orthophotography, 4-band imagery as well as an analysis of the UTC by land use category. This assessment also includes information on other land cover types including shrubs, grass/vegetation, open water and impervious surfaces. This assessment is based on computer image analysis, not field inventory or verification.

The tree canopy assessment carried out for the City of Shoreline was limited by available budget. Many cities in the region such as Seattle and Renton have conducted more detailed assessments of their tree canopy which required budgets upwards from $30,000. More detailed assessment could be completed for the City if additional resources were identified.

This analysis does not provide information on species diversity, forest health or a tree by tree count of tree canopy. As this assessment was done in the context of evaluating the City's tree code and possible amendments, it focuses on the extent and value provided by the tree canopy and does not evaluate the value of other types of vegetation such as shrubs, forest understory or grass.

## C. Unanswered Questions

This UTC Assessment provides a reasonably accurate citywide tree canopy estimate of 31% in 2009 and provides gross estimates of possible tree canopy increase as well as estimated values for the ecosystem services provided by this tree canopy. This information can inform City Council, boards and commissions and staff in future decision-making regarding tree canopy goals, regulations, and management policies. However, a number of questions remain unanswered that may be important to consider with these tree management decisions.

The City's information on specific tree species and sizes of the city's tree canopy is limited to the inventory of street trees completed for approximately three quarters of the City's right-of-ways (ROW) in 2003 and the vegetation studies completed for Hamlin, Shoreview, Boeing Creek, and South Woods parks in 2008. It is not known whether there has been any change in tree species diversity, nor how or why this might have changed.

Similarly, the City's information on the health of our trees and associated understory vegetation is limited to these ROW and park studies. No information is available on the health or management needs for trees on private property or public schools and campuses.

## D. UTC Goal Discussion

An Urban Tree Canopy goal combined with regular (5-10 year) assessment of the UTC is a common management tool utilized by cities to determine if their programs, policies, and regulations are achieving the desired outcome.

Shoreline's current tree regulations set a goal in the purpose statement of "No net loss of tree cover throughout the City over time." Based on the results of this UTC Assessment, the current regulations appear to be achieving this goal, or at the very least, not preventing the City from achieiving this goal.

The City of Shoreline's Environmental Sustainability Strategy and this Urban Tree Canopy Assessment both discuss an urban tree canopy goal recommended for metropolitan areas in the Pacific Northwest by the non-profit, conservation organization, American Forests. American Forests recommends an *average* tree canopy of 40% for the Pacific Northwest region. This average includes a range from 15 to 50% over central business districts (15%), urban residential zones (25%) and suburban residential zones (50%).

Both the Sustainability Strategy and the UTC Assessment recommend considering adoption of an increased UTC goal for the City; however, determining whether an average of 40% makes sense for the City is a policy decision that should take into consideration existing and allowable land uses in the City, the amount of tree canopy that is biophysically possible, and other competing uses and services that may not be compatible with trees.

AMEC recommends reassessing the UTC every five years. However, as the City has not seen any significant change to the urban tree canopy in the past 20 years, this may be too short a time frame. If no substantive change is made to the canopy goal or the tree regulations or other tree management and education programs, then the status quo is likely to continue. In this scenario, a 10 year reassessment period should be adequate for confirming whether tree canopy is being maintained or not. However, it the City decides to aim for an increase in UTC and/or substantively change the regulations, management policies or programs with the intent of influencing the total tree canopy in the City, a more frequent assessment period may be in order. In that scenario, a period of five to seven years would be recommended to determine whether City programs, policies and/or regulations are having the desired results.

## E. Policy Implications

The primary purpose of Council's direction in 2009 was to establish a baseline tree canopy measure so that after 5-10 years another assessment could be made to determine whether our canopy is increasing or decreasing. Based on that comparison the City could determine whether our tree regulations were adequate. In response to this purpose and based on the no loss of canopy findings, should the City amend the tree regulations standards for tree cutting, preservation and planting on private property?

A secondary purpose of the Council's direction in light of the UTC baseline, was to evaluate whether the City should maintain the existing "no net loss UTC" goal or whether to consider adopting a new goal. A new goal could be to increase the tree canopy over a reasonable amount of time and carry with it specific policy, programmatic, and regulatory steps to move toward achieving that goal. If a new goal were to be considered, does the American Forests recommendation of an average 40% UTC make sense for Shoreline?

In response to the secondary purpose and based on the difference between the 1992-2009 UTC of 31% and the recommended goal of 40%, should the City initiate programs that will increase the planting of trees? Staff anticipates that there will be Council direction in early May regarding amendments to the tree code.

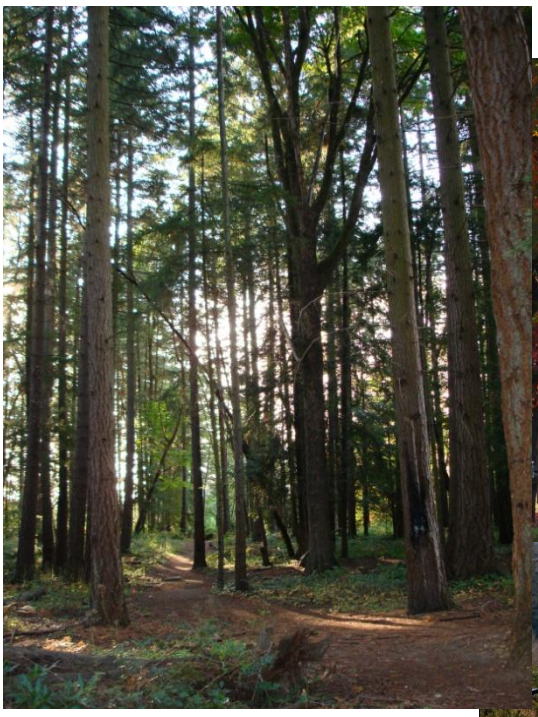
## Next Steps

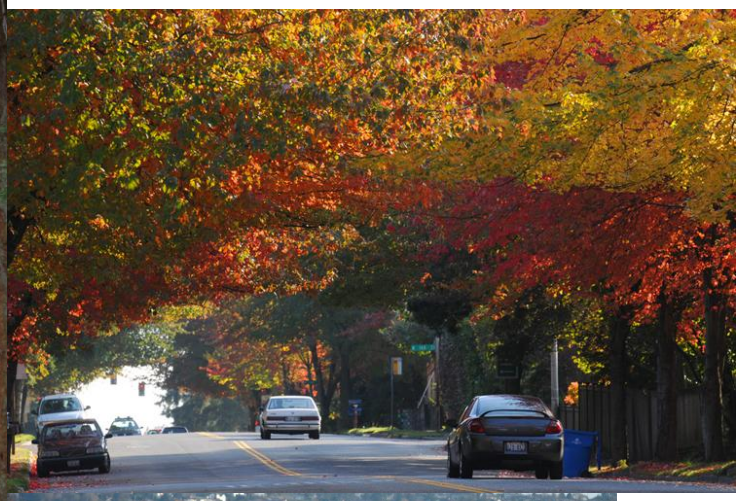
Since this is a study session, the Commission is not asked to take action on this item. If you have questions or comments about the memo, please contact Paul Cohn at 206-801-2551 or pcohen@shorelinewa.gov.

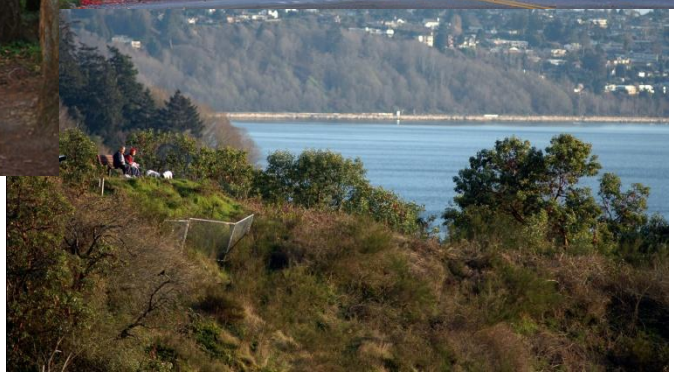
## Attachment

Attachment 1: Shoreline, WA – Urban Tree Canopy Assessment
Completed March 2011

# Shoreline, WA
# Urban Tree Canopy Assessment
## - Completed March 2011 -







**Prepared for:**
City of Shoreline, Washington

**Prepared by:**
Ian Hanou
Senior GIS Project Manager
AMEC Earth & Environmental

# Introduction

Figure 1: Shoreline City Boundary (Google)

The City of Shoreline envisions itself as a community of families, safe neighborhoods, cultural diversity, active partnerships, quality businesses, natural resources and responsive government. Trees have always been an important element of this community and were identified as a top priority by citizens during the initial City incorporation effort. To better realize this vision, the City Council set a goal in 2007 to "Create an Environmentally Sustainable Community."

In July 2008, City Council adopted the Shoreline Environmental Sustainability Strategy which includes a commitment to:

- Being stewards of our community's natural resources and environmental assets;
- Promoting development of a green infrastructure for the Shoreline community;
- Measurably reducing waste, energy and resource consumption, carbon emissions and the use of toxics in city operations; and
- Providing tools and leadership to empower our community to work towards sustainable goals in their businesses and households.

The overall health and long-term management of our urban tree canopy is an important piece in achieving environmental sustainability as a community. Our trees and other vegetation provide numerous environmental services, including reducing surface water runoff, contributing to carbon sequestration and overall air quality, mitigating urban heat island effect, buffering noise and visual impacts between developments, providing habitat for local wildlife, and are an essential part of the aesthetic of our urban landscape. Alternatives to engineered "grey" infrastructure that include green infrastructure such as trees don't carry the stigma of single function solutions and have greater capacity and cost-benefit ratio.

The City of Shoreline is continuing a multi-pronged approach to the long-term stewardship of our urban forests. The Public Works Department started in 2003 with an inventory and management plan for trees in the City's Right-of-Way. This inventory and management plan has guided the City's stewardship of street trees over the past seven years. Even today, when making decisions about maintenance, removal and planting of trees the City uses the 2003 inventory and management plan to inform these decisions. In 2009 the City's surface water management regulations were updated, including provisions for protecting trees in the low impact development standards. Public Works is currently revisiting the standards and policies for management of trees located on the City's Right-of-Way. The Parks, Recreation and Cultural Services Department is responsible for management of the trees in the City's parks and recently completed detailed inventories and vegetation management plans for four of the City's largest parks – encompassing 184 acres of urban forest.

At the beginning of 2009, the Planning and Development Services Department was tasked with updating the City's tree ordinance in response to recommendations in the City's Sustainability Strategy, comments and concerns from residents, and direction from City Council and the Planning Commission. The City Council specifically directed the Planning Commission and staff to:

> *"Establish a baseline urban forest canopy city-wide. This baseline would provide the context for the Council to make a policy decision … about a long-range City target for desired tree canopy. The target could be no-net loss of a city-wide percentage of canopy, or an increase or decrease of some magnitude, keyed to specific schedules. With such a baseline and target in place, the City could then monitor the overall City canopy, say every 5 years, to assess its health and identify any further programs or code amendments as needed."*

Shoreline City Council's 2010-2011 Goal 1 is to "Implement the adopted Community Vision by updating the Comprehensive Plan and key development regulations in partnership with residents, neighborhoods and businesses." This goal explicitly identifies adopting "updated tree regulations, including citywide goals for urban forest canopy" as a priority task. A baseline measure of Shoreline's tree canopy is essential to accomplishing this directive.

The purpose of this assessment was to provide a sound scientific basis for ongoing regulation and management of the urban tree canopy (UTC) on public and private property using the latest mapping technologies and canopy assessment protocols. The objective was to map the City of Shoreline's UTC and perform an initial, first-order assessment to calculate the value of the urban forest based on the benefits they provide to the community. This information will serve as the benchmark from which to measure the success of planning and urban forestry programs and to educate the public about the many benefits of trees.

# Major Findings

In 2011, AMEC Earth & Environmental was contracted to conduct an analysis of the City of Shoreline's existing urban tree canopy and compare the results with analysis of 30-meter resolution national data available for 1992 and 2001. Shoreline has 30.6% tree canopy coverage (based on 2009 imagery). This is a slight increase in canopy from 1992, estimated at 30%, and essentially the same as in 2001, estimated at 31%. Overall Shoreline has 55.7% green cover comprised of grass, shrubs and tree cover. Almost three quarters of Shoreline's tree canopy is located in the low density residential zones, an area that represents approximately two thirds of the total land area in the City.

This study further identified Shoreline's "possible urban tree canopy" using methodology developed by the U.S. Forest Service Northern Research, and commonly used in UTC analysis. Possible UTC, split into Possible Vegetation UTC and Possible Impervious UTC, was defined as

the areas where it is biophysically possible to plant trees, meaning all grass and open space vegetation and impervious area after excluding buildings, roads, and water bodies. This measurement takes into account all areas where it is biophysically possible to establish tree canopy, and while covering all of this area with trees may be unrealistic, it is a good tool for assessing what areas have the most availability. Land use should always be taken into account when using these numbers too, as schools and parks will have fields used for recreational purposes that are not suitable for tree planting, yet are included in Possible UTC estimates. The total Possible UTC is 3282 acres potentially available for planting, or 44.3% of area in addition to the 30.6% of existing UTC. This is comprised of 1609 acres (21.7%) of unforested vegetation, and 1673 acres (22.6%) of unforested impervious areas, such as parking lots.

The analysis also quantified some of the environmental and economic benefits of the City's tree canopy using CITYgreen software. Shoreline's 2009 tree canopy provides approximately $460,000 in indirect cost savings due to air quality improvement, 770 tons of annual carbon sequestration (removal of carbon from the atmosphere and storage as new tree growth), $900,000 annual cost savings for stormwater storage capacity that does not have to be built, and reductions of 3% to 10% in regulated stormwater pollutants, when compared to the scenario of no tree cover, in a typical storm.

## Shoreline 2009 Land Cover at a Glance

**Total City Area: 7,412 acres**

**Total Tree Canopy: 30.6% (2,270 acres)**

**Shrub Cover: 3.4% (253 acres)**

**Grass/Vegetation: 21.7% (1,612 acres)**

**Water: < 0.1% (24 acres)**

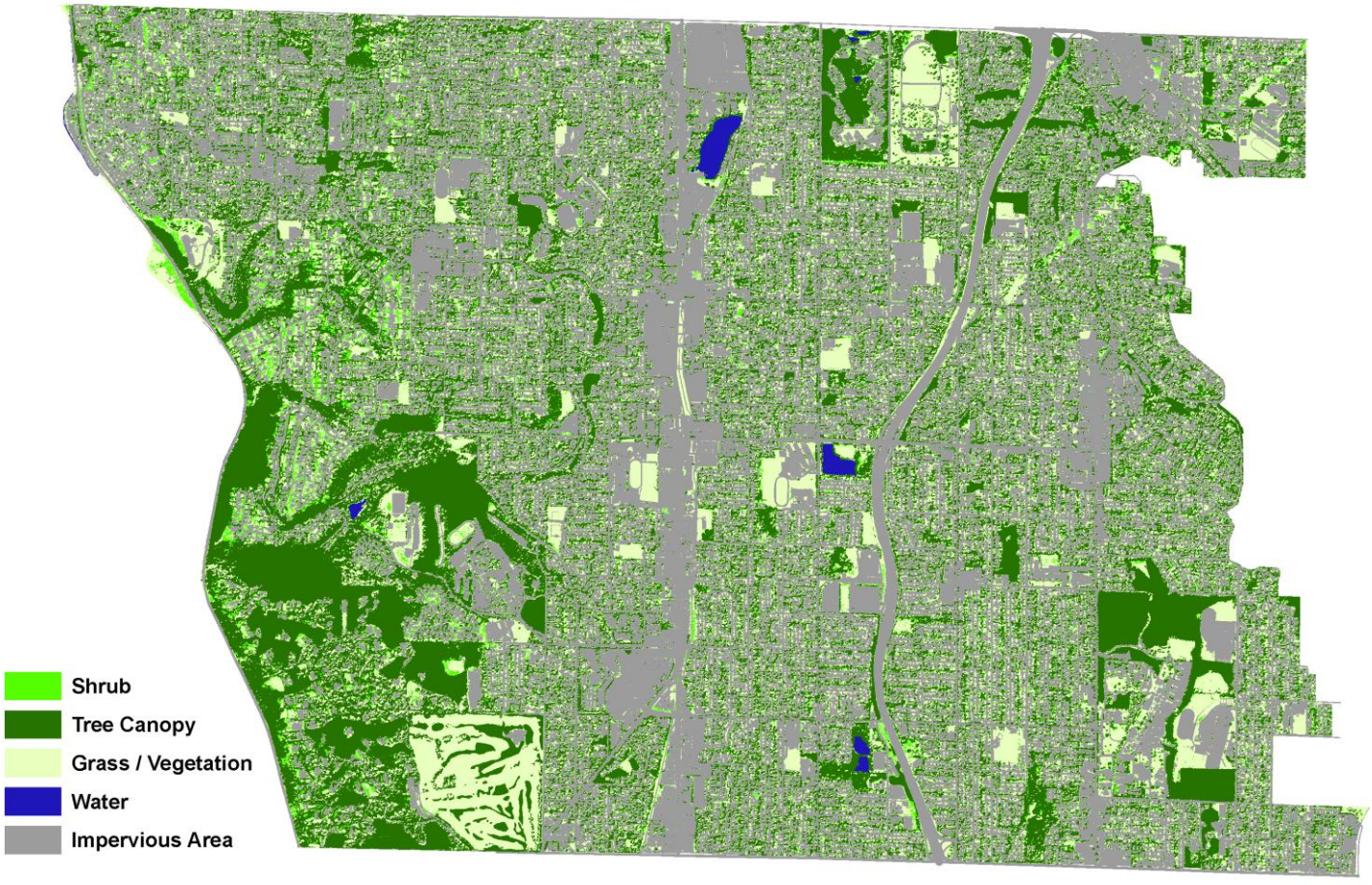
**Impervious Area: 46.2% (3,427 acres). (1.6%, 138 acres, is under tree canopy)**

**Key Terms:**

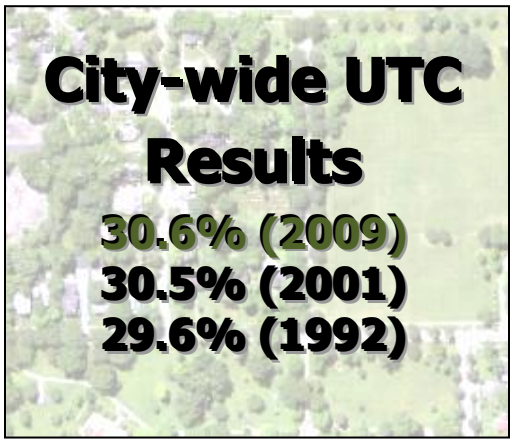
GIS – Geographic Information Systems
AOI – Area of Interest, referring to the study or project area
Urban tree canopy (UTC)* – the layer of leaves, branches, and stems of trees that cover the ground when viewed from above using aerial or satellite imagery
Land Cover* – features on the earth mapped from aerial or satellite imagery, such as trees, grass, water, and impervious surfaces
Possible UTC Vegetation * – grass or shrub area that is theoretically available for the establishment of tree canopy.
Possible UTC Impervious * – for this project this consisted of parking lots where it is theoretically possible to establish tree canopy

*Source: USDA Forest Service and/or University of Vermont Spatial Analysis Laboratory

Figure 2: Shoreline Land Cover Data – 5 class map



# Shoreline Land Use and Urban Tree Canopy Trends




The City of Shoreline Urban Tree Canopy (UTC) assessment is based on Geographic Information Systems (GIS) analysis of July 2009 Orthophotography Satellite imagery. Through this process the existing land cover was classified into five categories: Tree Canopy, Shrub, Grass/Dry Vegetation, Impervious, and Open Water. This land cover data analyzed the UTC along with the general land use categories found in Shoreline (see Figure 3) and totals for the City as a whole. The methodology for this analysis is summarized in Appendix A.

National Land Cover Data 1992 and 2001, available from the US Department of Agriculture, was used to obtain rough estimates of historic tree cover for the Shoreline area. At 30 meter resolution, this data is more generalized than the land cover data generated for 2009 from the 2-foot resolution, satellite imagery. Despite the coarseness of the data, the total canopy estimates for the Shoreline city limits can be broadly compared to the 2009 results and indicate that there has been no significant change to the percent urban tree canopy since 1992. More detailed information on the U.S. Forest Service's i-Tree Vue software, process and results of the tree canopy for 1992 and 2001 is available in Appendix B. Historic Aerial photo images over the past 65 years are included in Appendix C.

When compared with other municipalities in the Puget Sound region, Shoreline has a reasonable urban tree canopy.

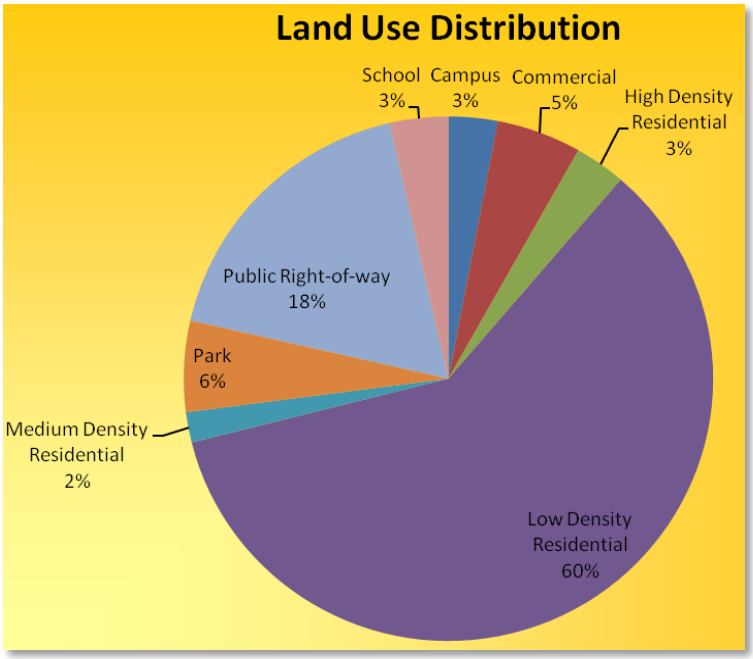
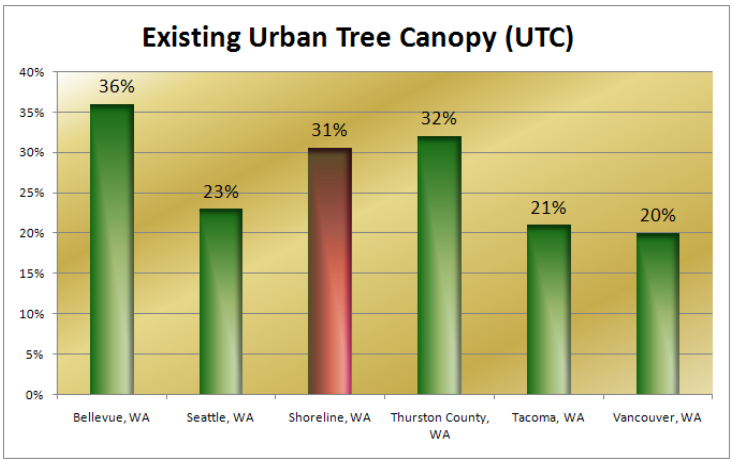



Figure 3. Percent Distribution of Land by General Land Use Types in Shoreline

Figure 4. Comparing Shoreline's Existing UTC to that of other Pacific Northwest communities



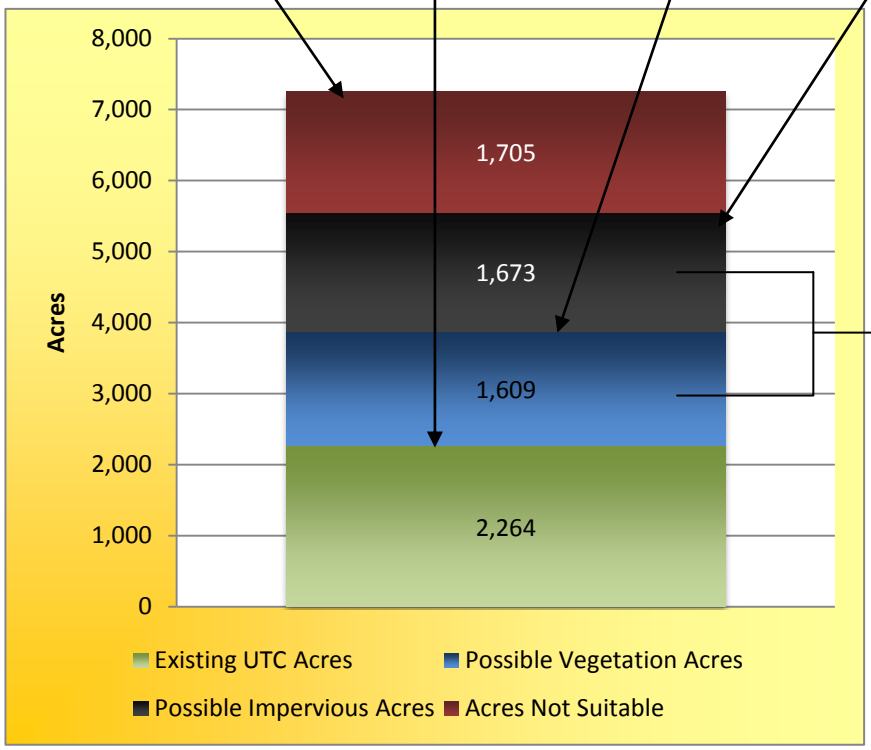
## Possible UTC Results

In addition to existing tree canopy, the 2009 land cover analysis roughly estimated how much existing impervious (parking lots) and existing shrub and grass vegetation could possibly be replaced with tree canopy. This estimate of additional Possible UTC at 44.3% is high because it does not take utility corridors, proximity to intersections, property owner preference, park and school areas that are dedicated to recreational fields, or the underlying zoning into consideration. Possible UTC may also be under-valued slightly for the areas where trees can overhang roads and buildings, which make up for some of the realistic error. This number is a cost-effective way to identify areas where increase in UTC could be viable, and can be used to focus outreach to property owners in high Possible UTC areas or to target City education and tree planting programs.

Table 1 below illustrates the acres and percent of Shoreline that were analyzed to be existing tree canopy, unsuitable for tree canopy (roads and buildings) or possible grass, shrub and impervious areas where tree canopy could be established.

Table 1. UTC Metrics for the City of Shoreline

| Total Acres | Not Suitable Acres | Not Suitable % | Existing UTC Acres | Existing UTC % | Possible UTC Vegetation Acres | Possible UTC Vegetation % | Possible UTC Impervious Acres | Possible UTC Impervious % | Total Possible UTC Acres | Total Possible UTC % |
|---|---|---|---|---|---|---|---|---|---|---|
| 7,412 | 1,705 | 23.0 | 2,264 | 30.6 | 1,609 | 21.7 | 1,673 | 22.6 | 3,282 | 44.3 |




Possible UTC, split into Possible Vegetation UTC and Possible Impervious UTC, was defined as the areas where it is biophysically possible to plant trees, meaning all grass and open space vegetation and impervious area after excluding buildings, roads and water bodies (U.S. Forest Service Northern Research Station).

There are 1,673 + 1,609 (3,282) acres of "Possible UTC Planting Acres".

Figure 5. Overall Summary of UTC Assessment

## UTC Results by Land Use Category

Almost three quarters of Shoreline's tree canopy is located in the low density residential zones, an area that represents approximately two thirds of the total land area in the City.

Parks and Right-of-Way represent 20% of the tree canopy, with the balance in the remaining land use areas.

Figure 6. Distribution of Existing UTC by General land use Type

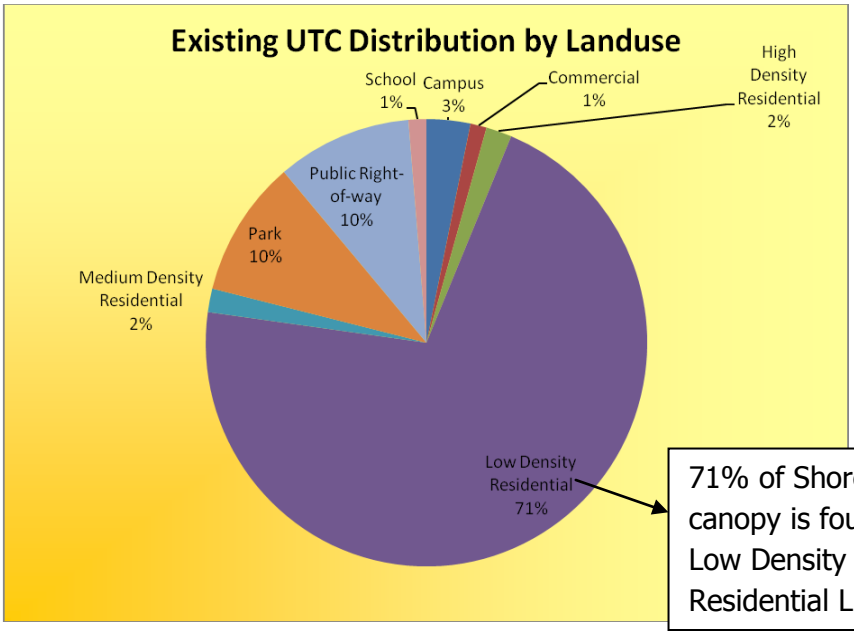



Table 2. Existing and Possible UTC Metrics within Each General Land Use Category

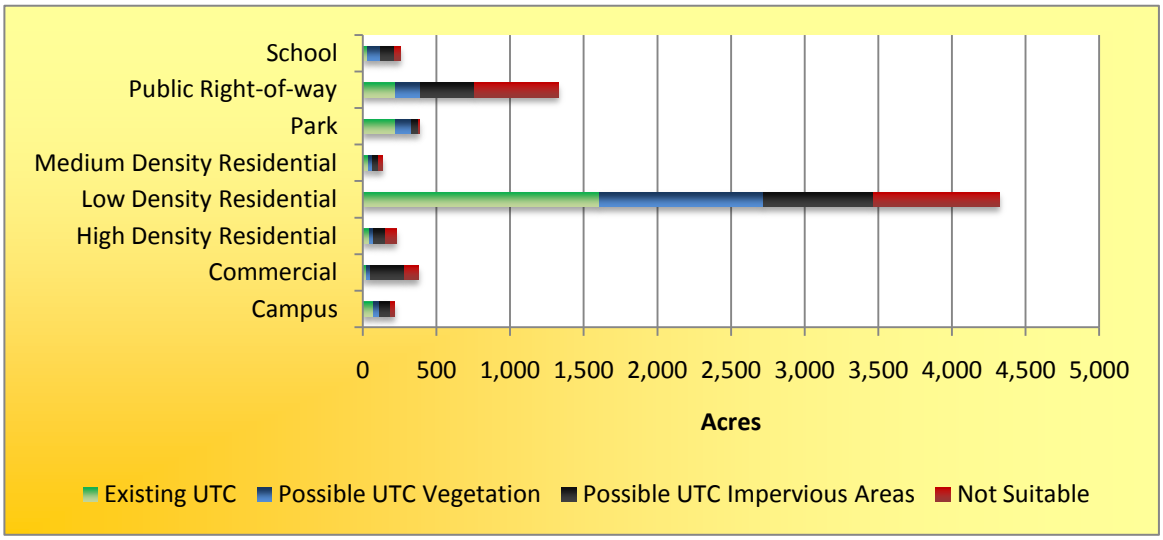
| Land Use | Total Acres | Not Suitable | Not Suitable % | Existing UTC | Existing UTC % | Possible UTC Vegetation | Possible UTC Vegetation % | Possible UTC Impervious | Possible UTC Impervious % | Total Possible UTC | Total Possible UTC % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Campus | 222 | 31 | 13.9 | 72 | 32.6 | 44 | 19.8 | 70 | 31.4 | 114 | 51.2 |
| Commercial | 382 | 99 | 25.9 | 27 | 7.0 | 23 | 6.0 | 230 | 60.2 | 253 | 66.2 |
| High Density Residential | 231 | 71 | 30.8 | 43 | 18.5 | 29 | 12.7 | 85 | 36.9 | 115 | 49.7 |
| Low Density Residential | 4,431 | 851 | 19.2 | 1,606 | 36.2 | 1,117 | 25.2 | 746 | 16.8 | 1,864 | 42.1 |
| Medium Density Residential | 138 | 32 | 23.1 | 39 | 27.9 | 30 | 21.9 | 36 | 26.0 | 66 | 47.9 |
| Park | 417 | 7 | 1.7 | 225 | 54.0 | 106 | 25.5 | 45 | 10.7 | 151 | 36.2 |
| Public Right-of-way | 1,325 | 568 | 42.9 | 223 | 16.9 | 170 | 12.8 | 368 | 27.8 | 537 | 40.6 |
| School | 263 | 46 | 17.5 | 30 | 11.3 | 90 | 34.1 | 93 | 35.3 | 182 | 69.4 |
| **Total** | | **1,705** | | **2,264** | | **1,609** | | **1,673** | | **3,282** | |

* 36% of all Low Density Residential Property Area is covered by Trees

* 66% of all Commercial Property Area is indicated as Possible UTC. Commercial zones have parking and access requirements that must be met, however, and are allowed up to 90% hardscape.

Figure 7 below, compares the total acres of existing UTC, Possible UTC and not suitable for UTC by general land use category. While the model estimates that an additional 66.2% of all commercial areas might be available for new tree canopy, the total acres is relatively small. Even if these estimates are double the area that realistically could have tree canopy added, from a total acreage perspective the biggest gains City-wide could be made in the Right-of-Way and in Low Density Residential Zones (R-4 and R-6).

Figure 7. Acres of Existing UTC, Possible Vegetation UTC, Possible Impervious UTC and Not Suitable Metrics by Land Use Type




This study does not look at the overall health, composition or age of the existing urban tree canopy. For example, the recent vegetation study in Hamlin Park indicates that a significant portion of the forested area does not have healthy understory vegetation and little to no new trees that will replace the existing canopy as it dies due to age, disease, or other events.

# Ecosystem Services Analysis

Trees, as green infrastructure, provide a wide variety of public benefits, including stormwater volume and quality improvement, air quality improvement, carbon removal from the atmosphere, and more. These benefits are referred to as ecosystem services. Grass and shrubs also provide ecosystem services, but to a lesser extent than trees. The benefits of these vegetative covers were not analyzed in this study. In the absence of trees, a municipality often has to provide similar services to protect the public, through construction of stormwater and water quality infrastructure or through regulation of uses that might generate these problems.

The ecosystem services, or environmental benefits, that trees and forests provide in cities are quantifiable in a variety of ways. Some techniques involve field data collection and statistical modeling to extrapolate environmental and economic benefits of urban tree canopy such as energy savings, air pollution removal and property value increase. In an effort to quantify the value to the City of Shoreline provided by tree canopy, the value of these ecosystem services was estimated using a nationally accepted modeling tool – CITYgreen developed by American Forests. This is just a baseline assessment, and a more detailed assessment is recommended, but outside of the scope of this project.


### Assumptions

In this model, trees are 'removed' to show the impact on air quality, lost carbon storage and sequestration benefits, additional stormwater runoff and the percent change in contaminant loading (water quality). The water quality and quantity components require that a replacement land cover be used to replace trees in the model, as land cover that is more impervious than trees will increase runoff and pollutant loading, often more than a grass or shrub land cover (as assumed here), depending on factors such as soil type and the specific replacement land cover class chosen.

CITYgreen does not take into account species composition, height, or DBH of trees. Instead, the model uses US Forest Service data on trees and applies a per unit area value/benefit for air quality and carbon storage/sequestration, based on the species/size/composition of trees in various reference city. Seattle was used as the reference City for this analysis. The CITYgreen results an estimate based on the best science, but some assumed values. More in-depth analysis can be done, but falls outside the scope of this project.

### Results

Shoreline's urban tree canopy contributes multiple environmental benefits to the community, including air and water quality improvement, stormwater quantity reductions, and carbon storage. For more detailed information on the basis for these estimates refer to Appendix D.

*Air Pollution Removal*

By absorbing and filtering out nitrogen dioxide (NO2), sulfur dioxide (SO2), ozone (O3), carbon monoxide (CO), and particulate matter less than 10 microns (PM10) in their leaves, urban trees perform a vital air cleaning service that directly affects the well-being of urban dwellers. The current UTC improves air quality for the residents of Shoreline by approximately 203,000 lbs of these pollutants per year, valued at $457,000 in indirect cost savings such as avoided health care expenditures.

Figure 8. Pounds of air pollutants removed by tree canopy annually and estimated cost savings.

| | Lbs. Removed/yr | Dollar Value |
|---|---|---|
| *Carbon Monoxide:* | 12,202 | $5,208 |
| *Ozone:* | 67,113 | $206,186 |
| *Nitrogen Dioxide:* | 30,506 | $93,721 |
| *Particulate Matter:* | 63,046 | $129,318 |
| *Sulfur Dioxide:* | 30,506 | $22,894 |
| **Totals:** | **203,373** | **$457,326** |

*Carbon Storage and Sequestration*

Trees remove carbon dioxide from the air through their leaves and store carbon in their biomass. Approximately half of a tree's dry weight is carbon. For this reason, large-scale tree planting projects are recognized as a legitimate tool in many national carbon-reduction programs. CITYgreen estimates the carbon storage capacity and carbon sequestration rates of trees in Shoreline to be:

Total Tons Stored: 98,175.44
Total Tons Sequestered (Annually): 764.32

This estimate does not directly account for tree removal, but is based on the estimated tree canopy.

*Stormwater*

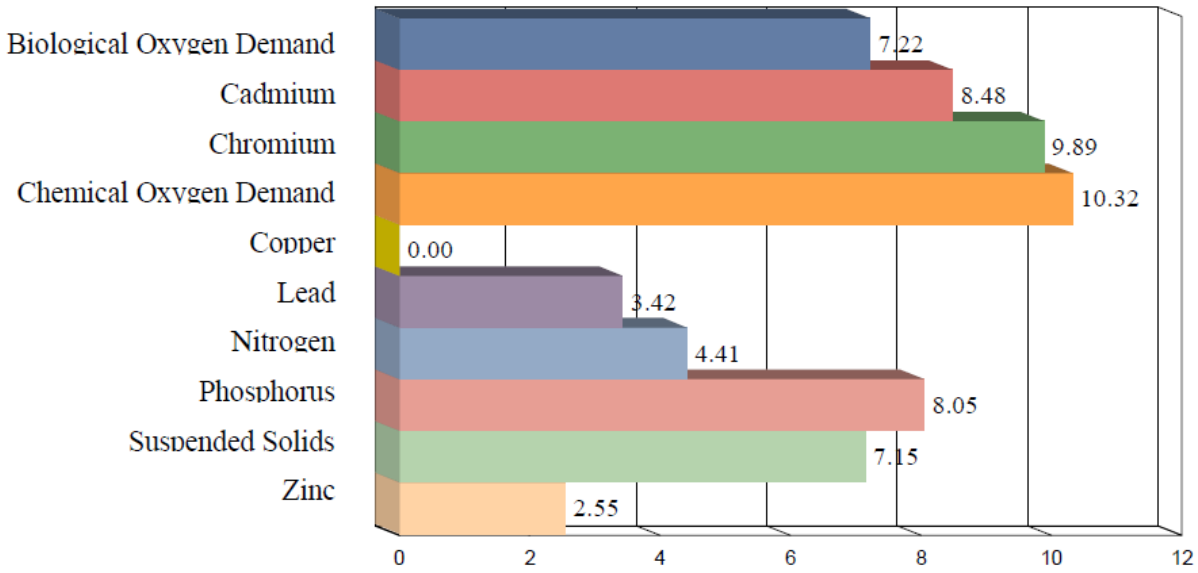
Shoreline's tree canopy slows stormwater and decreases the amount of stormwater storage needed by approximately 3.4 million cubic feet during a 2-year, 24-hour storm event. Based on a construction cost of $3/cubic foot this is valued at $10.3 million, or $900,000 annually over 20 yrs at 6%. Actual stormwater infrastructure construction costs for the City of Shoreline were not available at the time of this analysis so this amount is based on similar studies for cities in the Puget Sound region.

*Water Quality*

Cities must comply with Federal clean water regulations and Shoreline has developed a plan and adopted new regulations in 2009 to improve the quality of their streams and rivers. One way new development in Shoreline can meet these new standards is through the preservation of existing trees on site.

Trees filter surface water and prevent erosion, both of which maintain or improve water quality. The CITYgreen model estimates the change in the concentration of the pollutants in runoff during a typical storm event given the change in the land cover – in this case the difference between existing landcover with or without the existing tree canopy. Shoreline's existing 30.6% tree canopy is estimated to reduce pollutants and water quality indicators such as cadmium, chromium, lead, nitrogen and phosphorus and chemical and biological oxygen demand by 3 to 10% in a typical 2 inch, 24-hour storm event.

Figure 9. Percent reduction in Contaminant Loading with existing UTC vs. no tree canopy.




## Setting Urban Tree Canopy Goals

American Forests recommends an overall goal of 40% canopy in Pacific Northwest communities. This metric is based on assessing and comparing land use, environmental quality goals, and existing canopy, where suburban areas are expected to have a 50% canopy and more urban areas near 25%. With 31%, Shoreline is in a good position to start to work towards that goal. The first 1% percent increase would take approximately 6,000 trees with a mature crown diameter of 30 feet and would be a very realistic goal to start with. This increase alone would provide a stormwater benefit increase of almost $500,000 (from CITYgreen), and sequester an extra 35 tons of carbon every year.

Reaching the long-term goal of 40% would mean maintaining the existing tree canopy and adding approximately 46,000 trees to the canopy at an average 30-foot crown diameter. While a 40% canopy is biophysically an attainable goal, it may be more realistic for budgetary and management reasons to set a more conservative goal of 35% unless significant support is realized. Along with planting of street trees and increasing the vegetation in public parks and schools, the City should consider an outreach program to educate the public on increasing the canopy on their property, as much of the potential canopy lies within private land. Cooperating

with commercial and residential land owners will be crucial in maintaining and achieving canopy goals. Low density residential, parks, and public right-of-way also represent the biggest opportunities for maintaining and augmenting the existing tree canopy. It may benefit the city to perform a survey among its constituents on the desire to increase tree canopy on their property. 30.6% tree canopy cover may sound like a lot, but once it is realized how many possible planting spots exist around the City, more support can be garnered in the form of volunteers and backing from citizen organizations.

It is recommended a tree canopy study be performed every 5 years. This allows for a proper assessment of urban tree canopy improvement programs, development pressure over time, and how close the City is to its UTC goal. If possible, similar photographic data and analysis processes should be used, for the best comparison to the data generated in this project.

# Conclusion

With 31% existing UTC, Shoreline has average or slightly above-average tree canopy cover compared with other similar-sized communities in the Puget Sound Region. This canopy provides social, environmental, and economic benefits, some of which have been assessed for the first time through this project.

Shoreline is dedicated through its Forevergreen sustainability program to ecological health and to setting a canopy goal for increasing canopy to a realistic level over a reasonable time frame. The data from this assessment and subsequent analysis will help meet the mission of this program. Using the tools and data provided, the City can communicate to the public the value of trees along with where, how and why to improve planting and maintenance programs. These results and data products should be used by the City of Shoreline and other stakeholders involved in green infrastructure development as a starting point for more detailed environmental studies, comprehensive planning, GIS analyses and targeted urban forestry implementation/outreach programs. Setting up an incentive program and providing the public with information and instruction on how to best site and plant their trees will not only help reach Shoreline's canopy goal, but also get the City's constituency directly invested in this program to improve Shoreline as a sustainable and green community.

# About AMEC Earth & Environmental, Inc.

AMEC Earth & Environmental (AMEC) is a leading full-service environmental engineering and construction/remediation services firm in North America, providing environmental and geotechnical engineering and scientific consulting services. AMEC is a focused supplier of high-value consultancy, engineering, and project management services to the world's energy, power and process industries. We are one of the world's leading environmental and engineering consulting organizations. Our full service capabilities cover a wide range of disciplines, including environmental engineering and science, geotechnical engineering, water resources, materials testing and engineering, surveying, information management (GIS, remote sensing, database/application development) and program/project management.

Funding assistance provided by the USDA Forest Service and the Washington State Department of Natural Resources Urban and Community Forestry Programs.

# APPENDIX A. 2009 Urban Tree Canopy Methodology

## Summary

GIS and remote sensing technologies offer powerful analysis and decision support tools for managing urban natural resources. All UTC projects have at least 5 main elements in common regarding data inputs and outputs. These are: high-resolution imagery, supporting GIS layers from the community, land cover data, geographic boundaries in which to summarize tree canopy acres and percent cover, and reporting of the results through tables, graphs and maps. Urban Tree Canopy and Possible UTC are assessed at the larger-scale land use level and at the individual parcel level. The accuracy of this data is extremely high, and the delivered data can be manipulated using GIS programs by the community.

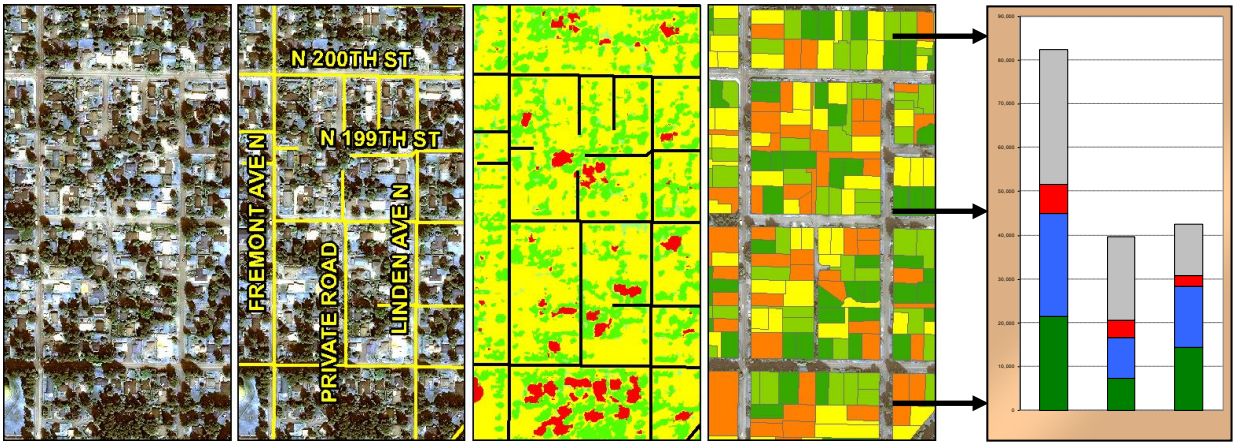
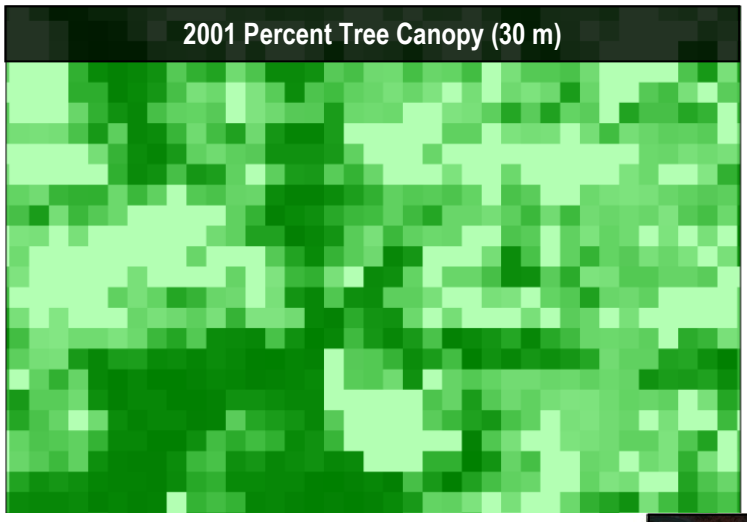


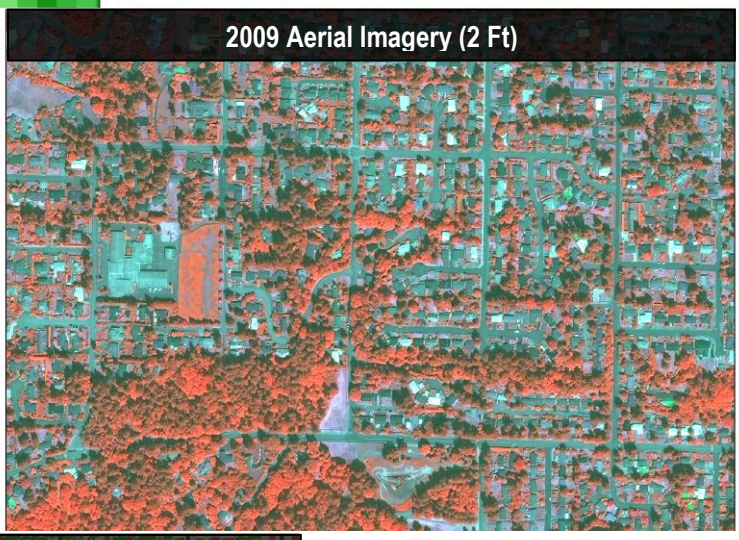

Figure 10. UTC Analysis Process

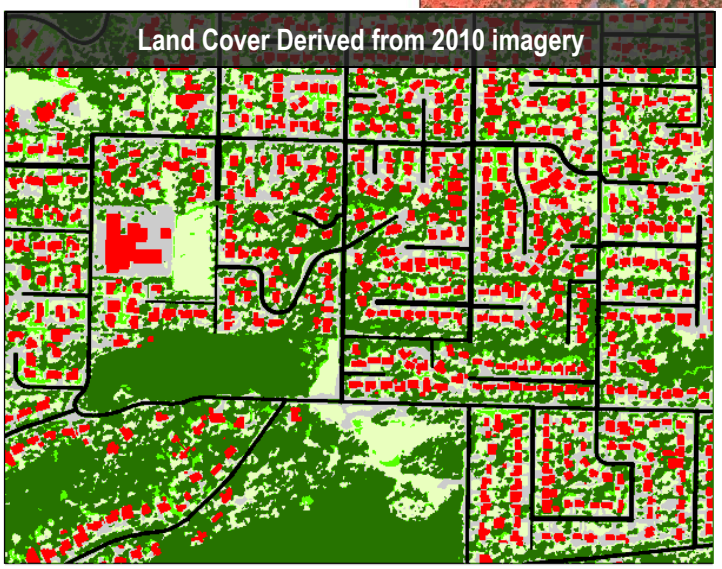
For this project, the City of Shoreline provided AMEC with the following GIS layers: city boundary, parcels, land use, parks, watersheds, hydrology (lakes and streams) and impervious surfaces (buildings, streets). Imagery was acquired by the city through eMap International, and this 2-foot, 4-band multispectral image was used for classification of trees and other land cover.

AMEC analyzed the multispectral imagery using a technique known as geographic object-based image analysis (GEOBIA) and developed a 5-class land cover dataset that included tree canopy, shrubs/vegetation, grass/ground cover, water and impervious surfaces. The GEOBIA approach provided a highly automated and cost-effective method for feature extraction by using algorithms that leverage spectral, spatial, textural, and contextual features in imagery, as well as incorporation of datasets provided by the City. The classification was refined with a manual quality assurance / quality control (QA/QC) process to finalize the land cover. Prior to this study, 2001 Land cover data was the only data available for assessing canopy cover. The images below illustrate how the increased resolution of imagery allows for a much more accurate land cover map. Figures 3-6 show more detailed examples of the results from this process.

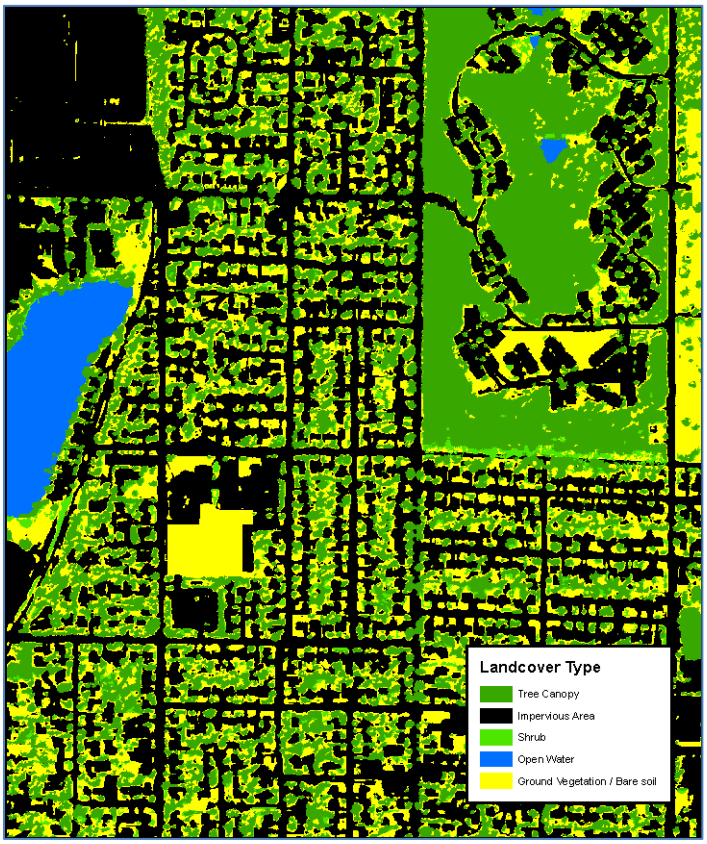
Figure 11. Comparison of 2001 data resolution and 2009 assessment data resolution. This increase in resolution allows for extremely accurate analysis of the tree cover, where the 2001 data can merely approximate the canopy cover



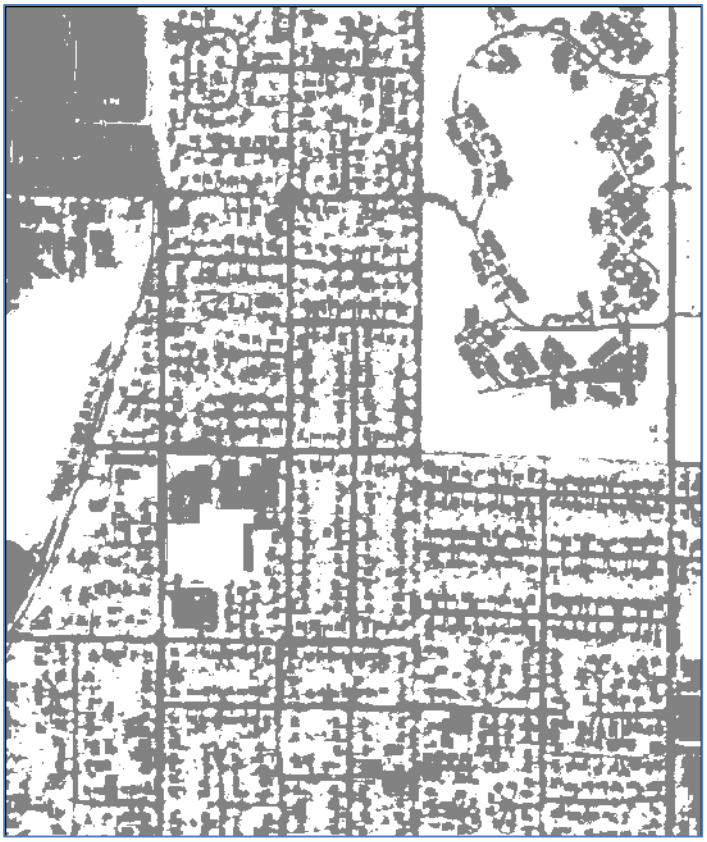



Figures 12 and 13. Color infrared aerial imagery and 5-class land cover data.

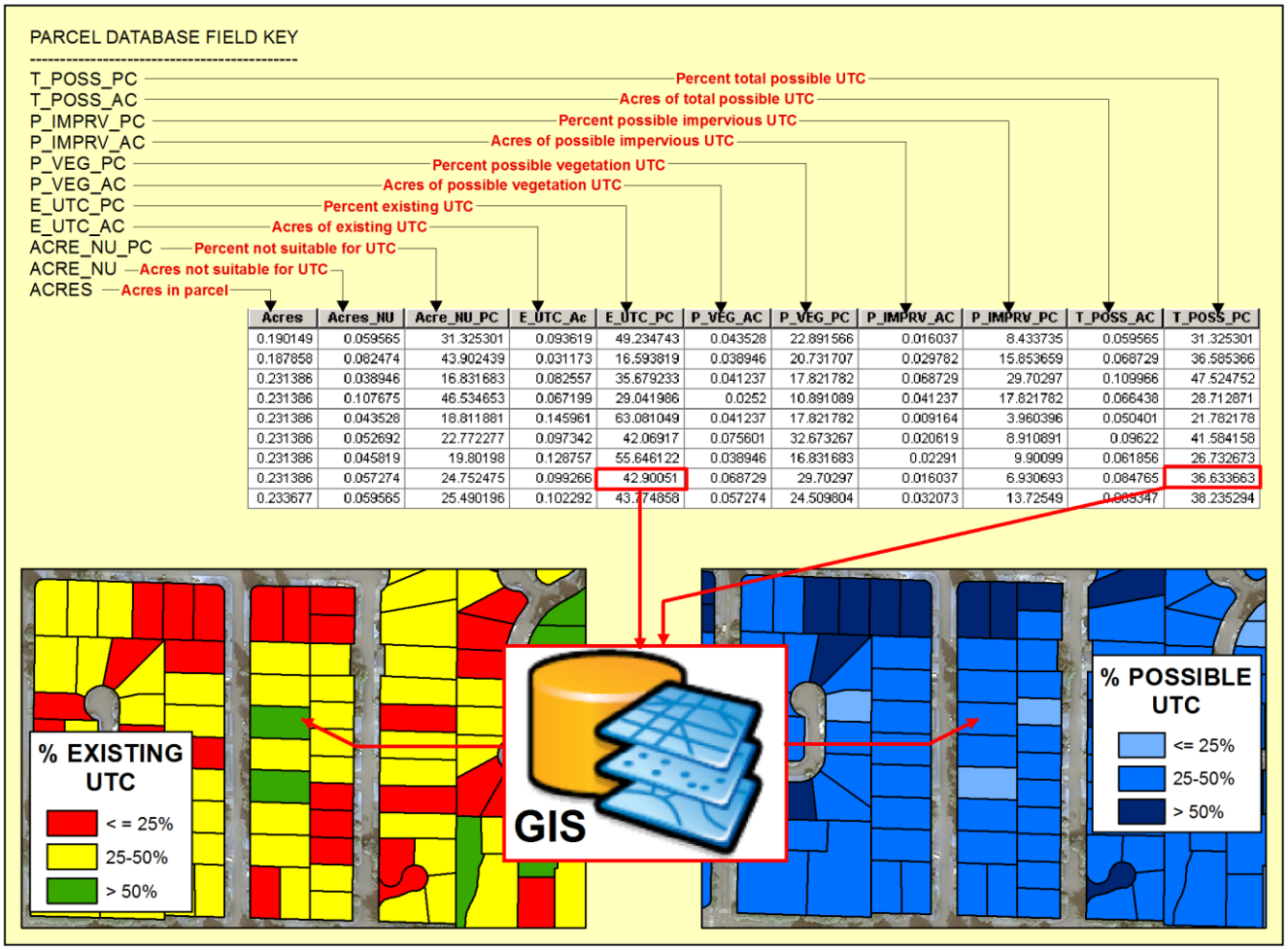



Figures 14 and 15. Trees and Impervious land cover data.



## Analysis of UTC Metrics

Figure 7. Structure and Symbolizing of Existing and Possible UTC Metrics by Parcel and an Accompanying Screenshot of the Parcels UTC Attribute Table




| Acres | Acres_NU | Acre_NU_PC | E_UTC_Ac | E_UTC_PC | P_VEG_AC | P_VEG_PC | P_IMPRV_AC | P_IMPRV_PC | T_POSS_AC | T_POSS_PC |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.190149 | 0.059565 | 31.325301 | 0.093619 | 49.234743 | 0.043528 | 22.891566 | 0.016037 | 8.433735 | 0.059565 | 31.325301 |
| 0.187858 | 0.082474 | 43.902439 | 0.031173 | 16.593819 | 0.038946 | 20.731707 | 0.029782 | 15.853659 | 0.068729 | 36.585366 |
| 0.231386 | 0.038946 | 16.831683 | 0.082557 | 35.679233 | 0.041237 | 17.821782 | 0.068729 | 29.70297 | 0.109966 | 47.524752 |
| 0.231386 | 0.107675 | 46.534653 | 0.067199 | 29.041986 | 0.0252 | 10.891089 | 0.041237 | 17.821782 | 0.066438 | 28.712871 |
| 0.231386 | 0.043528 | 18.811881 | 0.145961 | 63.081049 | 0.041237 | 17.821782 | 0.009164 | 3.960396 | 0.050401 | 21.782178 |
| 0.231386 | 0.052692 | 22.772277 | 0.097342 | 42.06917 | 0.075601 | 32.673267 | 0.020619 | 8.910891 | 0.09622 | 41.584158 |
| 0.231386 | 0.045819 | 19.80198 | 0.128757 | 55.646122 | 0.038946 | 16.831683 | 0.02291 | 9.90099 | 0.061856 | 26.732673 |
| 0.231386 | 0.057274 | 24.752475 | 0.099266 | 42.90051 | 0.068729 | 29.70297 | 0.016037 | 6.930693 | 0.084765 | 36.633663 |
| 0.233677 | 0.059565 | 25.490196 | 0.102292 | 43.774858 | 0.057274 | 24.509804 | 0.032073 | 13.72549 | 0.089347 | 38.235294 |

Alongside Analysis performed on the land use level, individual parcels were also analyzed for percentage tree canopy and possible planting area. This will allow the planning department to better assess where to focus outreach and target individual parcels for potential tree planting to increase the homogeneity of the canopy.

**Existing and Possible UTC Assessment Process**

Using the land cover classes described in the previous step, AMEC developed a series of geoprocessing models to calculate the area and percent of Existing and Possible UTC in both GIS and Excel format (see Figure 4 below). Existing UTC was defined as all area covered by trees and forest. Portions of this model were developed by the US Forest Service Northern Research Station and the University of Vermont Spatial Analysis Laboratory.

UTC GIS modeling workflow:

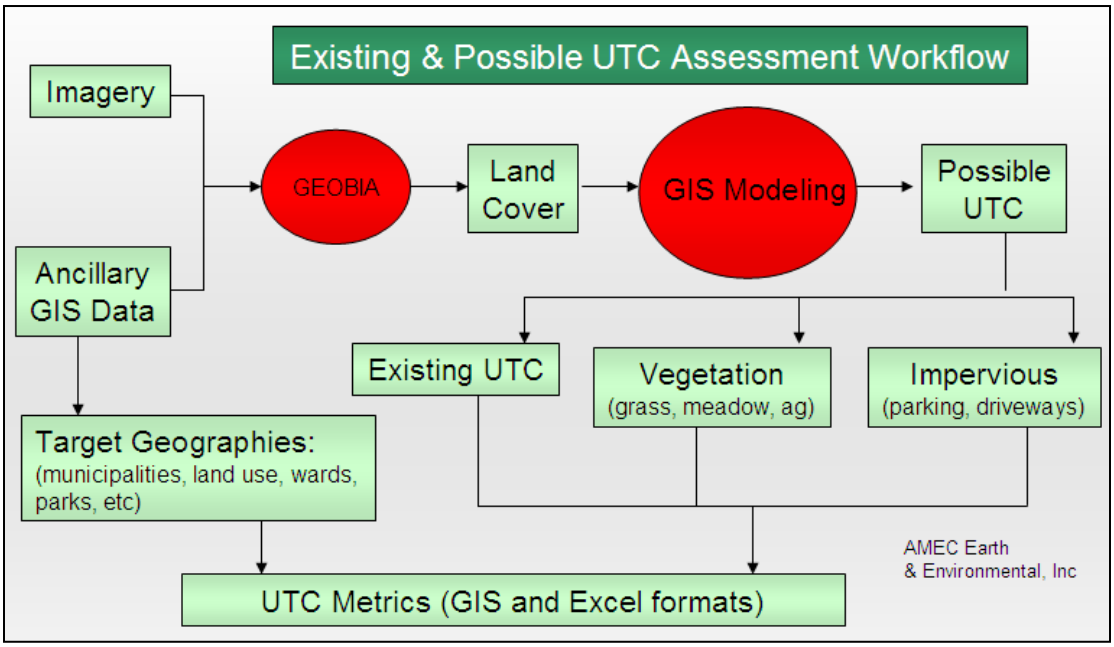



Figure 8. UTC GIS modeling workflow

# APPENDIX B. 1992 and 2001 i-Tree Vue Urban Tree Canopy

The City of Shoreline was interested in comparing the current tree canopy to historical canopy percentages. Because of the limitations of historical data, a landcover assessment as detailed as the 2009 assessment is unfeasible, however, using derived land cover data, a fairly good canopy cover estimate can be obtained, along with rough estimates on the historical benefit of tree canopy on pollution and runoff mitigation.

### i-Tree Vue Analysis: Comparing current tree canopy to historical cover

i-Tree Vue allows a user to obtain rough estimates of canopy and impervious land cover based on coarse 30 Meter resolution land use data provided by the U.S. Department of Agriculture. Along with percent cover, an estimate of the annual benefits and current value of the urban forest can also be assessed. For Shoreline, data from 1992 and 2001 were analyzed using this program.

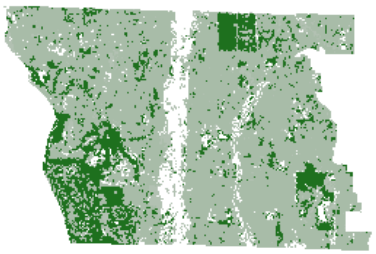
1992 iTree Vue analysis

| | Area (acres) | Percentage of total area |
|---|---|---|
| Total Area | 7412 | |
| Impervious Cover | 2701 | 36.60% |
| Existing Tree Canopy | 2187 | 29.60% |
| Available Planting Space | 2207 | 29.90% |

| | Weight (short tons) | Benefit per ton | Total Benefit |
|---|---|---|---|
| Carbon Storage | 88010 | $20.68 | $1,820,047 |
| Carbon Sequestration | 2901 | $20.68 | $59,993 |
| CO Pollution Removal | 4.2 | $1,276.41 | $5,361 |
| NO2 Pollution Removal | 12.3 | $8,986.57 | $110,535 |
| O3 Pollution Removal | 33 | $8,986.57 | $296,557 |
| SO2 Pollution Removal | 10.5 | $2,199.92 | $23,099 |
| Particulate Matter Removal | 19.4 | $6,000.12 | $116,490 |

| | |
|---|---|
| Overall Benefit: | $2,432,081 |
| Annual Pollution Removal Benefit: | $612,034.38 |

Figure 18. 1992 Canopy Cover



2001 iTree Vue analysis

| | Area (acres) | Percentage of total area |
|---|---|---|
| Total Area | 7412 | |
| Impervious Cover | 2881 | 38.87% |
| Existing Tree Canopy | 2261 | 30.50% |
| Available Planting Space | 2308 | 31.14% |

| | Weight (short tons) | Benefit per ton | Total Benefit |
|---|---|---|---|
| Carbon Storage | 91776 | $20.68 | $1,897,928 |
| Carbon Sequestration | 3026 | $20.68 | $62,578 |
| CO Pollution Removal | 4.4 | $1,276.41 | $5,616 |
| NO2 Pollution Removal | 12.8 | $8,986.57 | $115,028 |
| O3 Pollution Removal | 34.4 | $8,986.57 | $309,138 |
| SO2 Pollution Removal | 10.9 | $2,199.92 | $23,979 |
| Particulate Matter Removal | 20.2 | $6,000.12 | $121,202 |

| | |
|---|---|
| Overall Benefit: | $2,535,469 |
| Annual Pollution Removal Benefit: | $637,541.54 |

Figure 19. 2001 Canopy Cover

While development seems to have been strong in the period between 1992 and 2001, along with the current tree canopy of 30.6% the tree canopy seems to have stabilized around 30%. These values are approximates, however, and comparisons between the 2009 data and future canopy assessments will provide a more accurate picture of the trend in canopy growth in Shoreline. This data is generalized, and can therefore not be compared to the more detailed CITYgreen data.

# APPENDIX C. Historic aerial photos illustrating visual change in tree canopy since 1944

The following aerial photo images illustrate the change in Shoreline's tree canopy over the past 65 years.

Figure 20. City of Shoreline area 1944 aerial photo.

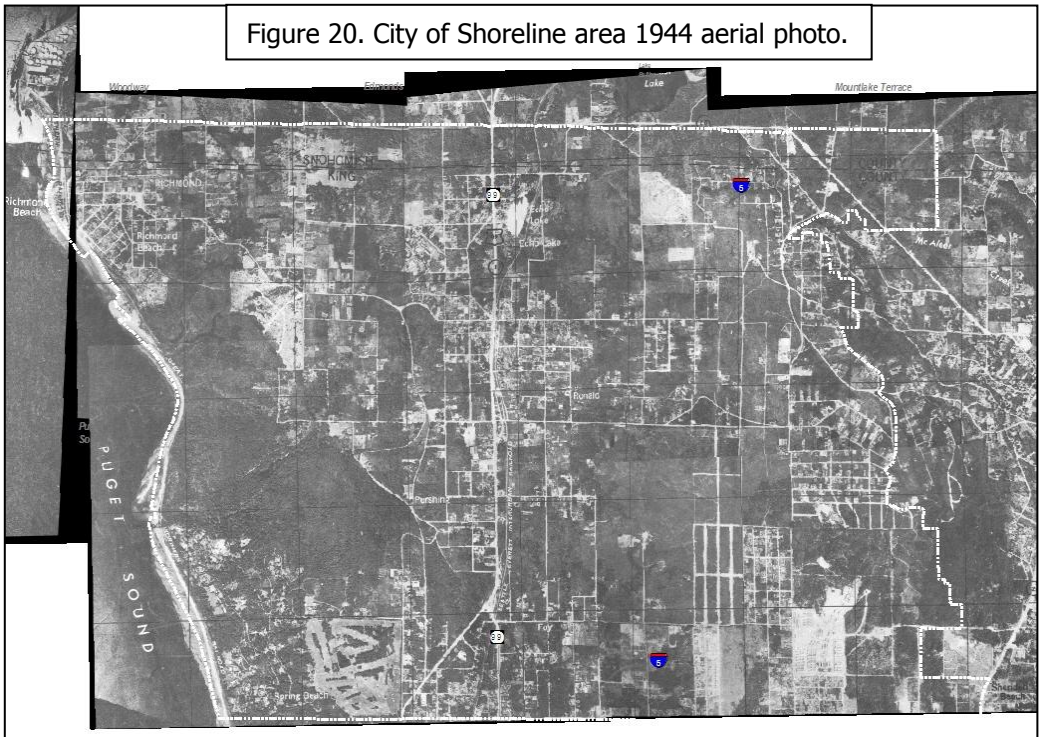



Figure 21. City of Shoreline area 1970 aerial photo.

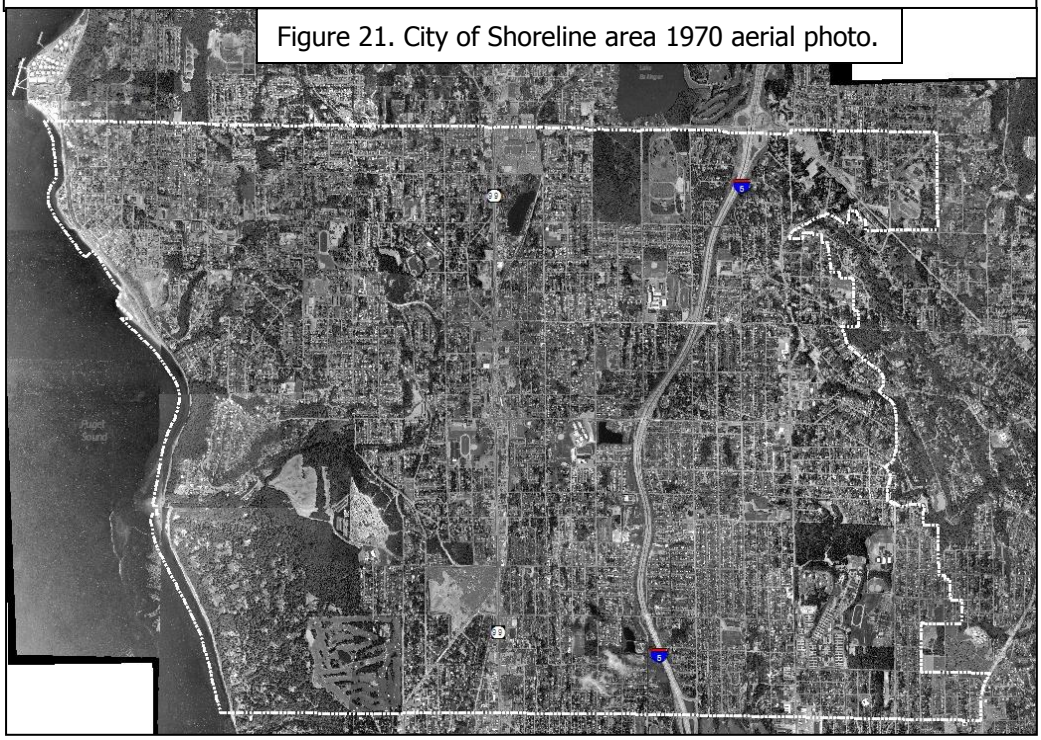
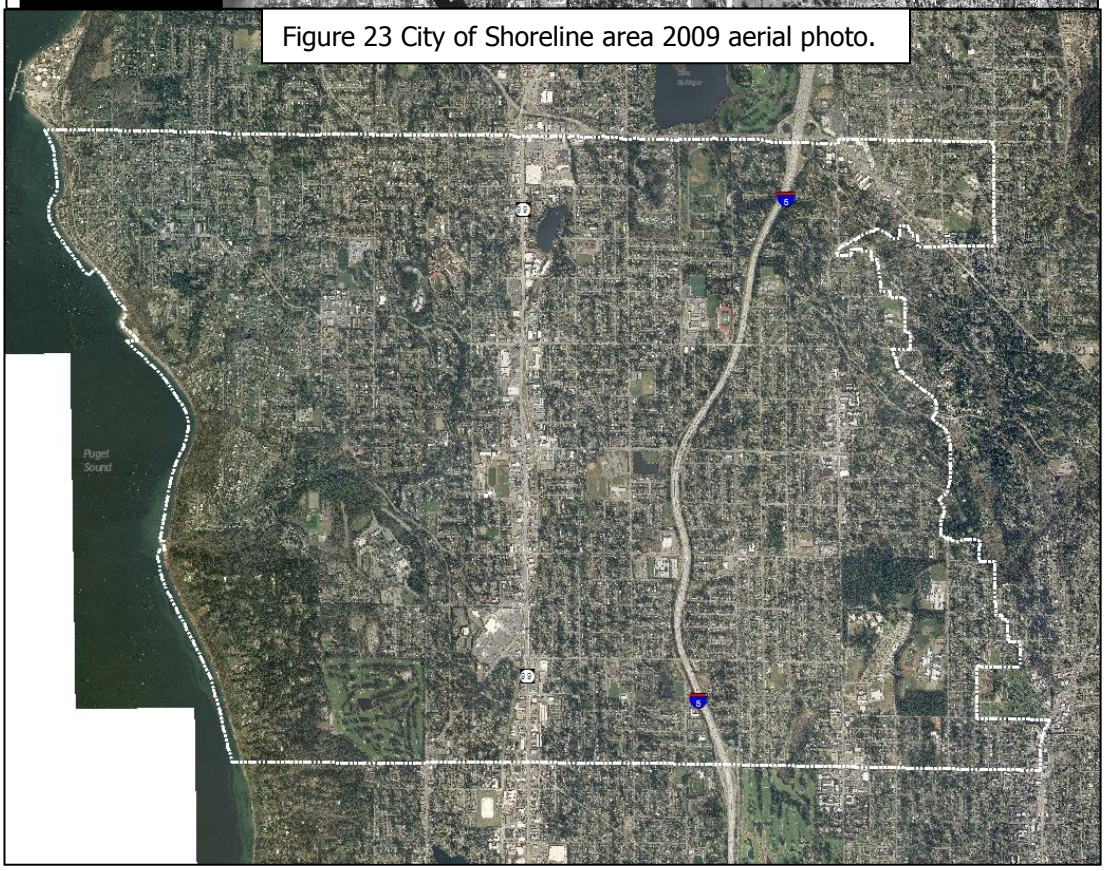


Figure 22. City of Shoreline area 1993 aerial photo.


Figure 23 City of Shoreline area 2009 aerial photo.



# Appendix D. Ecosystem Services Analysis Methodology

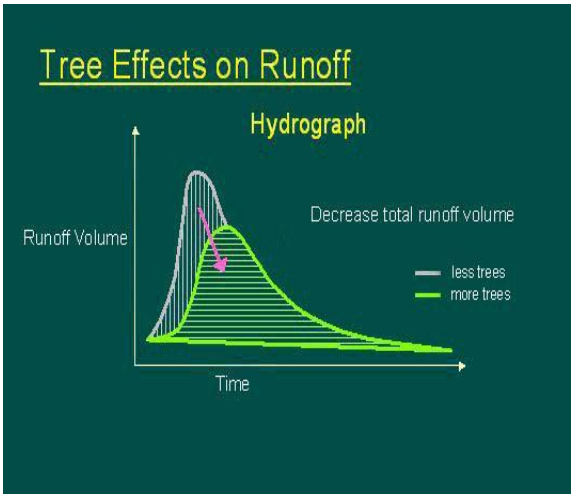
CITYgreen is a software package developed by American Forests that analyzes and calculates the ecological and economic benefits provided by trees and other green space using GIS-based land cover data and environmental models. It estimates the air pollution removal capacity, carbon storage and sequestration, storm water runoff benefit and water quality impact of urban forests without the need for field data collection. CITYgreen allows one to use a local reference city for air pollution and carbon storage values with data originating from USDA Forest Service research that has been applied to represent the average benefit per unit area of tree canopy. For storm water and water quality modeling, CITYgreen applies the TR-55 model from the USDA Natural Resources Conservation Service (NRCS) and the long-term hydrologic impact analysis (L-THIA) spreadsheet from the U.S. EPA and Purdue University. The Curve Number (CN) method as implemented in TR-55 and other programs was created based on plotting curves of rainfall versus runoff for large storms in agricultural watersheds. It is extremely inaccurate for small storms, which make up the bulk of yearly rainfall. It is meant to be used to determine the runoff from a single storm, and assumes a soil wetness to start.

### Air Pollution Removal

CITYgreen estimates the annual air pollution removal rate of trees within a defined study area for the pollutants listed below. To calculate the dollar value of these pollutants, economists use "externality" costs, or indirect costs borne by society such as rising health care expenditures and reduced tourism revenue. The actual externality costs used in CITYgreen of each air pollutant is set by each state's Public Services Commission. The values and estimated cost savings are based on data included in the model for the City of Seattle.

### Carbon Storage and Sequestration

Trees remove carbon dioxide from the air through their leaves and store carbon in their biomass. Approximately half of a tree's dry weight, in fact, is carbon. For this reason, large-scale tree planting projects are recognized as a legitimate tool in many national carbon-reduction programs. CITYgreen estimates the carbon storage capacity and carbon sequestration rates of trees within a defined study area.

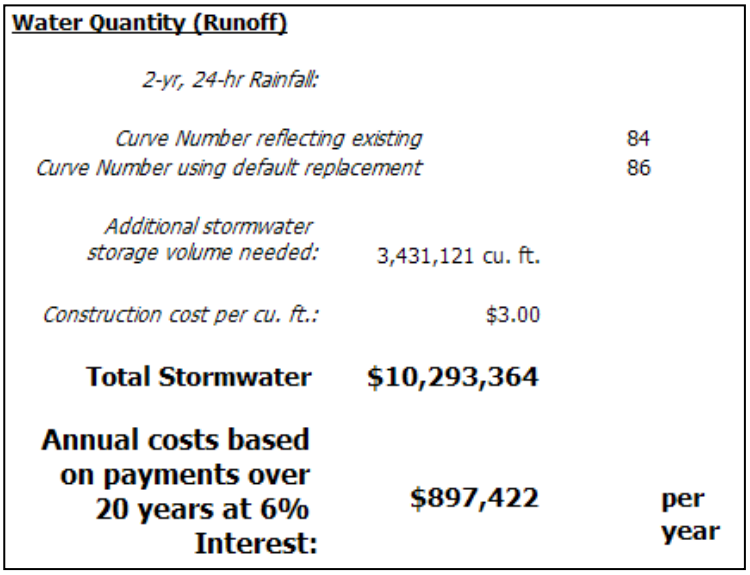



### Stormwater

Trees decrease total stormwater volume helping cities to manage their stormwater and decrease detention costs. CITYgreen assesses how land cover, soil type, and precipitation affect stormwater runoff volume. It calculates the volume of runoff in a 2-year 24-hour storm event that would need to be contained by stormwater facilities if the trees were removed. This volume multiplied by local construction costs calculate the

dollars saved by the tree canopy. CITYgreen uses the TR-55 model developed by the Natural Resource Conservation Service (NRCS) which is very effective in evaluating the effects of land cover/land use changes and conservation practices on stormwater runoff. The TR-55 calculations are based on curve number which is an index developed by the NRCS, to represent

Figure 1. Shoreline's tree canopy benefits to stormwater quantity.



**Water Quantity (Runoff)**

| | | |
|---|---|---|
| *2-yr, 24-hr Rainfall:* | | |
| *Curve Number reflecting existing* | | 84 |
| *Curve Number using default replacement* | | 86 |
| *Additional stormwater storage volume needed:* | 3,431,121 cu. ft. | |
| *Construction cost per cu. ft.:* | $3.00 | |
| **Total Stormwater** | **$10,293,364** | |
| **Annual costs based on payments over 20 years at 6% Interest:** | **$897,422** | **per year** |

the potential for storm water runoff within a drainage area. Curve numbers range from 30 to 100. The higher the curve number the more runoff will occur. CITYgreen determines a curve number for the existing landcover conditions and generates a curve number for the conditions if the trees are removed and replaced with the user-defined replacement land cover specified in the CITYgreen Preferences. The change in curve number reflects the increase in the volume of storm water runoff. The analysis run here used conservative values to assess the urban tree canopy's overall benefit. The construction cost of $3/cu. ft. is an estimate, and has been reported to be up to $11/cu. ft. in the Puget Sound region.

### Water Quality

Cities must comply with Federal clean water regulations and develop plans to improve the quality of their streams and rivers. Trees filter surface water and prevent erosion, both of which maintain or improve water quality. Using values from the US Environmental Protection Agency (EPA) and Purdue University's L-thia spreadsheet water quality model, American Forests developed the CITYgreen water quality model. This model estimates the change in the concentration of the pollutants in runoff during a typical 2 inch, 24-hour storm event, given the change in the land cover. This model estimates the Event Mean Concentrations of Nitrogen, Phosphorus, Suspended Solids, Zinc, Lead, Copper, Cadmium, Chromium, Chemical Oxygen Demand (COD), and Biological Oxygen Demand (BOD). Pollutant values are shown as a percentage of change.

CITY OF SHORELINE

# Memorandum

**DATE:** April 14, 2011

**TO:** Shoreline Planning Commission

**FROM:** Joseph W. Tovar, FAICP, Planning and Development Services Director
Steven Cohn, Senior Planner

**RE:** Discussion on Planning Commission Semi-Annual Joint Meeting with City Council

---

## Introduction & Background

The City Council and Planning Commission meet jointly twice a year to adopt and review progress on the Planning Work Program, consider ways to improve the City's planning processes, clarify priorities and mutual expectations, and otherwise provide an avenue for communication.

At the upcoming meeting, the main items of discussion will be the Comprehensive Plan update and the Long-Range Planning work program. Following is the substance of the staff report being sent to the City Council for the April 25 joint meeting. We have thirty minutes on the Planning Commission's April 21 agenda to review these materials and help the Commission prepare for a productive joint meeting the following Monday with Council.

## Discussion Items

2011-12 Comprehensive Plan Update

At its April 4 meeting, the Council directed staff and Planning Commission to aim to achieve a December 2012 adoption date for the Plan Update. To meet that timeframe, staff suggests a process that includes the following steps:

1. April 25 – Final Council direction on Update at joint Council/Commission meeting

2. May-Aug 2011 – Community outreach to invite citizens to suggest ideas that implement the adopted Vision and Framework Goals.

3. May 2011-March 2012 – Staff reviews existing Comprehensive Plan policies that are redundant, obsolete, or meet the other criteria for removal. (This task is further defined in the paragraph following Task 9 below).

4. Fall 2011 /Early Winter 2012 – During this timeframe, staff will identify three types of potential additions to the Comprehensive Plan:
    - Appropriate policies from the updates to the Transportation Master Plan, the Parks/Open Space Master Plan and the Surface Water Master Plan
    - Mandates from state or regional bodies, such as population/employment allocations, and the needed plan amendments to achieve consistency
    - Other amendments to either the Future Land Use Map or Plan Elements to more fully implement the adopted Vision Statement and Framework Goals.

5. Winter 2012 – Staff develops new policies which follow from Task 4 above.

6. 2nd Quarter 2012 – Public outreach of draft Plan & Planning Commission study sessions.

7. 2nd Quarter 2012 – SEPA review and analysis. This task will require consultant services to assist in the preparation of an Environmental Impact Statement. Staff will provide a rough cost estimate at the joint meeting on April 25, and return with a firm estimate during the Council's 2012 budget process this fall.

8. 3rd /4th Quarter 2012 – Public Hearing & follow-up PC study sessions resulting in recommendation.

9. 4th Quarter 2012 – Council review/adoption.

With this timeframe in mind, the workplan shows that a staff review of the existing plan would occur in the May 2011-Mar 2012 timeframe. Following Council's direction, staff will assess goals and policies in the Plan and nominate for removal those that meet any of the following criteria:

- Are redundant,
- Are obsolete,
- Are actually regulations, rather than policies. Such items may become candidates for code amendments,
- Are superseded by or require revision due to new state or regional requirements,
- Are not policies but are background data or analysis that can be moved to a functional plan or the non-project EIS on the Plan update.

2011-12 Long Range Planning Commission Work Program:

The current draft of the workplan is attached. A number of items are scheduled for completion by the end of Summer 2011. These include: Town Center Subarea Plan and Regulations, SE Neighborhoods Subarea Implementing Zoning, Shoreline Master Program, and the Permanent Assignment of certain quasi-judicial hearings to Hearing Examiner.

Other items requiring staff resources in the latter part of this year include: Shoreline Community College Master Plan, Point Wells, and potential new development code amendments, including the animal control policy the Council recent discussed and several citywide amendments that the Commission may recommend as an outgrowth of SE Neighborhood Plan implementation discussions. As noted at the April 4 Council study session, depending on their complexity, items added to the work program may impact the Comprehensive Plan Update timeline.

If you have questions or comments, feel free to contact Joe Tovar at 801-2501 or via email at jtovar@shorelinewa.gov or Steve Cohn at 801-2511 or via email at scohn@shorelinewa.gov.

## Recommendation

Staff recommends that the Council and Planning Commission discuss the above topics at their joint meeting on April 25.

## Attachments

1. Comprehensive Plan Update Timeline
2. Long Range Planning Work Program, dated 4/12/2011

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## Work Task: COMPREHENSIVE PLAN UPDATE

***Last Updated: 3/17/11***

| | 2011 | | | | | | | | | | | | 2012 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ##### | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | ##### | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| **14.1 - Vision and Framework Goals (adopted 5/11/2009)** | | | | | | | | | | | | | | | | | | | | | | | | |
| **14.2 - Staff develops preliminary scope** | X | X | X | X | X | | | | | | | | | | | | | | | | | | | |
| **14.2a City Council Comp Plan Update Retreat** | | | X | | | | | | | | | | | | | | | | | | | | | |
| **14.2b City Council adopts final direction on scope of Update** | | | | | X | | | | | | | | | | | | | | | | | | | |
| **14.3 - Discussion/decision on Urban Growth Center designation** | | | | X | X | X | X | X | X | | | | | | | | | | | | | | | |
| **14.4 - Community outreach to gather new ideas (consistent with current Vision Statements)** | | | | | X | X | X | X | X | | | | | | | | | | | | | | | |
| **14.5 - Commission reviews update suggestions and decides whether to include in update process** | | | | | | | | | | X | X | | | | | | | | | | | | | |
| **14.6 - In-house review of Elements:** | | | | | | | | | | | | | | | | | | | | | | | | |
| **14.6a - Land Use and Future Land Use Map** | | | | | X | X | X | X | | | | | | | | | | | | | | | | |
| **14.6b - Housing** | | | | | X | X | X | X | | | | | | | | | | | | | | | | |
| **14.6c - Transportation** | | | | | | | X | X | X | X | X | | | | | | | | | | | | | |
| **14.6d - Parks, Recreation, and Open Space** | | | | | | | X | X | X | X | X | | | | | | | | | | | | | |
| **14.6f - Capital Facilities** | | | | | | | | | | X | X | X | X | X | | | | | | | | | | |
| **14.6g - Utilities** | | | | | | | | | | | X | X | X | X | X | | | | | | | | | |
| **14.6h - Shoreline Master Program** | | | | | | | | | X | X | X | | | | | | | | | | | | | |
| **14.6i - Economic Development** | | | | | X | X | X | X | | | | | | | | | | | | | | | | |
| **14.6j - Community/Urban Design** | | | | | | | | | X | X | X | X | X | | | | | | | | | | | |
| **14.7 - Growth Targets and City-wide allocation scenarios (revisit if Growth Ctr is adopted)** | | | | | | | | | | | | | X | X | X | | | | | | | | | |
| **14.8 - Report out to Commission about recommended changes** | | | | | | | | | | | | | | x | | x | | x | | | | | | |
| **14.9 - Public outreach about staff recommended changes** | | | | | | | | | | | | | | | | | X | X | | | | | | |
| **14.10 - Commission review of recommended changes/public hearing/recommendation** | | | | | | | | | | | | | | | | | x | x | x | x | x | x | | |
| **14.11 -SEPA analysis, will include new traffic model run if Growth Ctr proposal is adopted** | | | | | | | | | | | | | | | | X | X | X | X | X | | | | |
| **14.12 - Revisons to elements if warranted because of SEPA analysis** | | | | | | | | | | | | | | | | | | X | X | X | X | | | |
| **14.13 - Council Check-in/Plan review begins October 2012/Adoption Dec 2012** | | | | | X | | | | X | | | | | X | | | | | X | | | | X | XX |
| **14.14 - General outreach/webpage/Currents etc** | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

**Legend**

X Staff

X Planning Commission

***X City Council***

# 2010-2012 Long Range Planning Work Program

| Legend | | Commission Role | x | Staff Role | XX | Council Adoption |
|---|---|---|---|---|---|---|

*Revised 4/12/11*

| | Sta | 2010 | | | | | | 2011 | | | | | | | | | | | | 2012 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Work Task 1 Aldercrest Study and Zoning Implementation** | BL | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 1.1 - Analysis and Recommendation | | | | x | x | x | x | | | | | | | | | | | | | | | | | | |
| 1.2 - Commission Review | | | | | | | x | x | x | x | | | | | | | | | | | | | | | |
| 1.3 - Council Review and Adoption | | | | | | | | | | XX | | | | | | | | | | | | | | | |
| **Work Task 2 Development Code Amendments** | | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 2.1 - Compatibility amendment *(not currently scheduled)* | BL | | | | | | | | | | | | | | | | ? | ? | ? | ? | ? | | | | |
| 2.2 - Single Family Dwelling Unit Scale *(not currently scheduled)* | MR | | | | | | | | | | | | | | | ? | ? | ? | ? | ? | | | | | |
| 2.4 - Tree Regulations | PC & BL | x | x | x | x | x | x | x | x | x | x | x | x | x | | x | | XX | | | | | | | |
| **Work Task 3 Design Review** | PC | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 3.1 - Consultant and Staff Proposal Development | | x | x | x | x | x | x | x | x | x | x | x | XX | | | | | | | | | | | | |
| *(only Town Center, not other comm'l areas)* | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3 - Design Stds for other areas (not currently scheduled) | | | | | | | | | | | | | | ? | ? | ? | ? | ? | ? | | | | | | |
| **Work Task 4 Code Amendments** | | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 4.1 - Development Code Amendment Packages (including Animal Control and possible city-wide code revisions stemming from SE Neighborhood Plan implementation) | SS & MR | x | x | | x | | XX | | | | | | x | x | | x | | XX | | | | | | | |
| 4.2 - Reg Reform (Permanent Transfer of Rezones, Master Plans etc. from PC to Hearing Ex) | SC & BL | | | | | | | | x | | | | x | XX | | | | | | | | | | | |
| **Work Task 5 Light Rail Alignment Planning** | JT & SC | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 5.1 - Staff analysis | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| 5.2 - Council direction | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Work Task 6 Functional Plan Updates** | | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | x | May | Jun |
| 6.1 - Transportation Master Plan Update | DL | x | x | x | x | x | x | x | x | x | x | x | x | x | x | XX | | | | | | | | | |
| 6.2 - Shoreline Master Program (review and adoption) | MR | x | x | x | x | x | x | x | x | x | x | x | | x | | x | XX | | | | | | | | |
| 6.3 - Parks Master Plan Update | SC | | | x | x | x | x | x | x | x | x | x | XX | | | | | | | | | | | | |
| **Work Task 7 Point Wells** | JT | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| 7.1 - Subarea Plan Amendment | | | | | | | | x | XX | | | | | | | | | | | | | | | | |
| 7.2 - Developer Agreement and Corridor Study | SC & JT | | | | | | | | | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | | | |
| 7.3 - Legislative Process | | | | | | | | x | x | x | x | x | | | | | | | | | | | | | |
| 7.4 - Ongoing staff monitoring/commenting/coordination on Pt Wells SEPA and subsequent permits | | | | | | | | | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |

# 2010-2012 Long Range Planning Work Program

| Legend | | Commission Role | x | Staff Role | XX | Council Adoption |
|---|---|---|---|---|---|---|

*Revised 4/12/11*

| | Sta | 2010 | | | | | | 2011 | | | | | | | | | | 2012 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Work Task 8 Town Center Subarea Plan** | PC | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | | | | |
| 8.1 - Staff and consultants conduct community outreach | | x | x | x | x | x | x | x | x | | | | | | | | | | | | | | | | | | |
| 8.2 - Staff prepares Plan & Code Amendments for Town Center | | x | x | x | x | x | x | x | x | x | x | x | x | | | | | | | | | | | | | | |
| 8.3 - Plan & Code amendments reviewed by Planning Commission | | x | x | x | | | | x | | x | | x | | | | | | | | | | | | | | | |
| 8.4 - Planned Action/EIS | DL | | | | | | | x | x | x | x | x | XX | | | | | | | | | | | | | | |
| 8.5 - Council adopts Plan and Code Amendments | | | | | | | | | | | | | XX | | | | | | | | | | | | | | |
| **Work Task 9 SE Neighborhoods Plan and Zoning update** | MR | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | | | | |
| 9.1 - Zoning Implementation | MR & SC | x | | x | x | x | x | | x | x | | | | x | x | XX | | | | | | | | | | | |
| **Work Task 10 Master Development Plan Public Health Lab** | SS | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | | | | |
| 11.1 - PC Review and Council Adoption | | x | x | x | x | | | | | | | | | | | | | | | | | | | | | | |
| 11.2 - CPA Review and Adoption | | | x | x | | | XX | | | | | | | | | | | | | | | | | | | | |
| **Work Task 12 Master Dev Pln for Shoreline CC - expected application March/April 2011** | SS | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | | | | |
| 12.2 - Master Development Plan | | | | | | | | x | x | x | x | x | x | x | x | x | x | XX | | | | | | | | | | | |
| **Work Task 13 Census Analysis** | SC | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | | | | |
| 13.1 - Review and analyze/compare to regional and state data | | | | | | | x | x | | x | x | | x | x | x | | | | | | | | | | | | | |
| **Work Task 14 Comprehensive Plan Update (see separate sheet)** | | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | | | | |
| | | | | | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | | | | |
| **Work Task 15 Rezones** | SS | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | | | | |
| 15.1 Estimate approx 2 per year | | | | | | | | | | | | | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | ? | | | | |
| **Work Task 16 CPA Docket** | SC/SS | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | | | | |
| 16.1 - 2010 CPA docket | | | x | x | x | x | XX | | | | | | | | | | | | | | | | | | | | |
| 16.2 - 2011 CPA docket | | | | | | | | | | x | XX | | x | x | x | x | x | x | XX | | | | | | | | |