

Parsons, Susan

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Sent: Thursday, July 06, 2017 4:54 PM
To: Council Clerk – Testimony
Subject: City of Portland Case # LU 16-159330 LDS EN; Letter on Behalf of the Applicant Against Appeal of Hearings Officer's Decision
Attachments: 2017.06.07 Lt Mayor Wheeler.pdf

Attached please find a letter and three exhibits submitted on behalf of the Applicant. Please place a copy of these materials in the official record for this matter and please place a copy before the City Council prior to the continued hearing in this matter.

Thank you.

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July 6, 2017

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VIA EMAIL ONLY TO: cctestimony@portlandoregon.gov

Mayor Ted Wheeler
Portland City Council
Portland City Hall
1221 SW Fourth Avenue
Portland, OR 97204

**Re: City of Portland Case # LU 16-159330 LDS EN; Letter on Behalf of the
Applicant Against Appeal of Hearings Officer's Decision**

Dear Mayor Wheeler and Members of the Portland City Council:

This office represents Everett Custom Homes, Inc. ("Applicant"), the applicant in this matter. This letter and its attachments are the Applicant's submittal prior to the close of the first open record period on Thursday, July 6, 2017 at 5:00 p.m. Please place a copy of this submittal into the official record for this matter, and please consider this submittal before making a final decision on the applications.

1. Executive Summary.

As the City Council considers what decision to make in this appeal, it should keep in mind that this appeal, like any other land use decision, is about following the approval criteria, not doing what the greatest number of people wish. The City's land use regulations implement the City's Comprehensive Plan and other laws, such as the Transportation Planning Rule with respect to the street connectivity. The City Council has adopted the land use regulations so that its vision, based on the Portland Comprehensive Plan, on how the City grows is implemented.

The Applicant appreciates the neighbors' point of view and bears no malice to the neighbors. Nevertheless, simply because the neighbors disagree with the proposed street connection does not mean that that is not the required result. As a practical matter, if the City Council were to prohibit the connection of SW Pendleton Street in this case, it would make it extremely difficult for the City Council to require a connection in the next land use application where the issue arises. This is the precise reason the City Council has adopted land use regulations specifying what an application must do and why everyone is

on notice of what those land use regulations require. By not following land use regulations, as the neighbors urge, the City is placed in the position of making ad hoc decisions each time someone opposes a development that proposes what the City's land use regulations require.

Further, Applicant is developing the Property consistent with applicable environmental standards and will maintain existing wetland function and hydrology, mitigate impacts of removing trees, and will not interfere with any "seeps" or "springs."

For the reasons explained below and elsewhere on the record, the City Council should deny the appeal and approve the Applications.

2. Appeal Status.

The City Council closed the public hearing on June 22, 2017, but left the written record open as follows:

- Until July 6, 2017 at 5:00 p.m. for any person to submit argument and evidence.
- Until July 13, 2017 at 5:00 p.m. for any person to rebut first open record period submittals without new evidence.
- Until July 20, 2017 at 5:00 p.m. for the applicant only to submit final written argument without new evidence.

The City Council is scheduled to consider the matter on August 9, 2017 at 3:30 p.m.

3. Transportation, Traffic, and Pedestrian Issues.

A. The proposed development will not adversely affect traffic operations or safety.

Applicant's transportation engineer Kittelson & Associates, Inc. ("KAI") evaluated existing conditions and projected impacts to the multimodal transportation system from developing the Subdivision. KAI presented its analysis and conclusions in the Transportation Impact Analysis dated June 6, 2016 ("TIA"). In the TIA, KAI concluded that, subject to completing frontage and sidewalk improvements on SW 48th Avenue and SW Pendleton Street and subject to completing the new north-south street connection between the two legs of SW Pendleton Street ("Street Connection"), the multimodal

transportation system is adequate to support the Subdivision. Specifically, KAI concluded that, after build-out, all study intersections are expected to satisfy the City's operational and performance standards. The TIA also supports the conclusion that the sidewalk and street improvements will improve the safety of the existing system. PBOT staff reviewed the TIA and concurred with KAI's findings and recommendations. The Hearings Officer relied upon the TIA to find that the Applications satisfy applicable criteria. Residents have not submitted any expert testimony that undermines this testimony nor have they adequately explained how the Hearings Officer erred in his analysis of this issue. As the Hearings Officer noted, residents will likely perceive an increase in traffic in the immediate area upon build-out of the Subdivision. However, a perceptible increase in traffic that does not violate City standards is not a basis to deny or further condition the Applications.

B. The Street Connection is required, practicable, and appropriate.

Connectivity is required in municipal street systems pursuant to the Oregon Transportation Planning Rule, as implemented by the City's Transportation System Plan and the Portland City Code ("PCC"). The City requires street and pedestrian connections in residential zoning districts, taking into account existing street patterns and master street plans for the area. PCC 33.654.110.A.1. In this case, both existing street patterns and the applicable master street plan call for the Street Connection. The subject site is an infill site with existing street stubs on either side, including on the south side, where SW Pendleton Street dead-ends at the eastern boundary of the subject site. Thus, the subject site must provide a connection that fits into this existing street pattern by connecting the two dead-end sections of SW Pendleton Street.

Further, the City's adopted master street plan for the area, the Southwest Portland Master Street Plan, calls for a "connected street system" and identifies a needed connection between the two legs of SW Pendleton Street. *See* Portland Master Street Plan Map 11.11.6.

Although there is an exception to the connectivity requirement if a street connection is not "appropriate or practicable," the City Council should find that the exception is not met in this case. "Practicable" is defined as "[c]apable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." PCC 33.910. Applicant has analyzed site conditions and determined that it is "practicable" to provide the Street Connection. Further, KAI has opined that the Street Connection is "appropriate" in light of the location and spacing of existing roadways.

See Exhibit 1, page 6. PBOT has concurred with the need for the Street Connection and has noted the many benefits of providing this connection, including dispersing traffic, providing alternate routes, and facilitating emergency response.

The City Council should find that the Street Connection is required and should be approved.

C. Potential cut-through traffic will be limited due the existing route is faster and more convenient.

The Street Connection will provide a new route between SW Cameron Road and SW 45th Avenue. KAI opined that it was unlikely that a significant amount of traffic would divert from the existing route and use the Street Connection as a “cut-through.” KAI reached this conclusion because the existing route (SW 45th Avenue to SW Cameron Road) is more direct, has fewer turns, and a higher speed limit. *See memo in Exhibit 1.* By contrast, the Street Connection is less direct, has five turns, multiple stop signs, and a slower speed limit. As a result, the existing route is faster and more convenient, which suggests that it will be the preferred route for drivers. KAI further concluded that, even factoring in potential cut-through traffic, each of the study intersections would continue to operate acceptably under applicable City standards. Residents do not present any expert testimony that undermines KAI’s analysis.

D. The Subdivision is consistent with the City’s Safe Routes to Schools program, to the extent it is an applicable approval criterion.

The City’s website includes a map of recommended walking and biking route to local schools called “Safe Routes to Schools.” The map includes a disclaimer stating that it is offered for “convenience” and does not include any representations or warranties regarding actual conditions. Nothing in the PCC or other City plan or ordinance makes the Safe Routes to Schools map or program an approval criterion for land divisions such as the Applications. To the extent Safe Routes to Schools does apply, the Applications are consistent with this program for the reasons explained by PBOT staff. Development of the Subdivision will require completion of the Street Connection and frontage improvements on SW 48th Avenue and SW Pendleton Street, all of which will include sidewalks built to City standards. Thus, the Subdivision will enhance pedestrian and bicyclist safety and increase, not decrease, the number of safe bicycling and pedestrian routes to and from Hayhurst Elementary School. The streets in the area are generally low-volume, low-speed local streets. These facts reduce the likelihood of conflicts

between cars and pedestrians. The City Council should find that the Subdivision is consistent with the City's Safe Routes to Schools program, to the extent it is an applicable approval criterion.

E. The Subdivision is consistent with the City's Vision Zero program, to the extent it is an applicable approval criterion.

Through the Vision Zero program, the City and its partners "are working to eliminate deaths and serious injuries in our streets by 2025." Neither the PCC nor any other City plan or ordinance identifies the Vision Zero program as an approval criterion applicable to land divisions such as the Applications. However, as summarized by City staff in the staff report for the Applications, to the extent the Vision Zero program is applicable, the Subdivision and its related street and sidewalk improvements (where none currently exist) on SW Pendleton Street, SW 48th Avenue, and the Street Connection will enhance safety for pedestrians and bicyclists. These safety enhancements are consistent with the City's Vision Zero program. The City Council should deny contentions to the contrary.

F. Additional traffic calming measures are not required, but Applicant is willing to make a contribution to fund them.

The development does not warrant additional traffic calming measures for two reasons. First, the characteristics of the Street Connection will naturally calm traffic. For example, the Street Connection winds, has a significant grade, and will have on-street parking. Second, as Mr. de Freitas testified at the appeal hearing, speed bumps must satisfy national warrants, which are not currently met in this area. Notwithstanding these points, Applicant voluntarily proposes the following condition of approval to facilitate the City's further analysis and installation of traffic calming in the future:

"The Applicant shall deposit into an escrow fund in favor of the City of Portland an amount up to \$10,000, which amount is to be jointly determined by PBOT and the Applicant. These funds may be used at any time by the City of Portland after the Applicant's final plat is recorded to analyze traffic impacts resulting from the connection of SW Pendleton Street, and if necessary, to install traffic calming devices including but not limited to stop signs, other signage, and speed bumps in Pendleton Street or other streets."

The City Council should find that, subject to Applicant's proposed condition of approval, the Application adequately provides for traffic calming measures.

G. If the Street Connection is removed, it will lead to a reduction in the City's housing supply and impose an inordinate burden on Applicant.

Several residents proposed removing the Street Connection and re-designing the subdivision around a cul-de-sac. The City Council should deny this proposal for three reasons. First, as explained above, this proposal is not consistent with the PCC. Second, it will lead to a loss of one or more lots, which will reduce the supply of housing that the Subdivision will generate. This outcome is particularly problematic as the City is in the midst of a City Council-declared housing emergency. Third, it is not feasible to Applicant because it will lead to a loss of development potential (one or more lots) and will compromise the size and marketability of remaining lots. According to City staff, it will also require Applicant to prepare, file, and obtain approval of new applications, which will involve significant expenses to Applicant in consultant costs, application fees, and land carrying costs. There is no legal basis to impose this level of burden on the Applicant. The City Council should deny the residents' proposal.

H. The Subdivision should not be denied due to inadequate sidewalks in the surrounding area.

Residents contend that the sidewalks associated with the Subdivision will be islands. In some cases, this is true because the existing sidewalk network in the neighborhood is incomplete. However, as surrounding properties develop and redevelop, they, too, will be required to install sidewalks, which will facilitate a complete sidewalk network over time. There is no legal basis for the City to require Applicant to complete the entire sidewalk network in the neighborhood. Further, the City cannot rely upon the lack of sidewalks in the area as a basis not to install them with this application. Otherwise, the sidewalks might never be provided. Adding sidewalks in the area will increase safety and further the City's Vision Zero program for the reasons stated above. The City should find that the residents' contention does not provide a basis to deny or further condition the Applications.

I. The adjustment to the Hayhurst Elementary School attendance zone should not lead to a significant increase in additional schoolchildren pedestrians in this area.

Although Portland Public Schools adopted a larger school attendance zone for Hayhurst Elementary School this spring, the City Council should find that the larger attendance zone is not likely lead to a significant increase in additional schoolchildren walking through the subject area to and from the school. The City Council should reach this conclusion because the areas added to the Hayhurst school attendance zone are not near the school or the subject area. In fact, they are located at the farthest edges of the school attendance zone, where walking to and from school is least likely to occur. See Exhibit 2, which depicts the new Hayhurst school attendance zone, with the added areas shaded in gray blocks. As this exhibit depicts, the school is located near the center of the attendance zone. The Property is about a block east of the school. According to Google maps, the areas added to the attendance zone are at least 0.8 to one mile from the school each way. It is not reasonable to expect that many elementary school students will walk this distance to and from school on a regular basis, particularly given Portland's wet winter weather and the grades in the area. Therefore, the City Council should deny the residents' contention on this issue.

4. Environmental and Hydrology Issues.

A. Seeps/Springs.

Appellant argues that three wet features outside of the EC zone are "seeps or springs" under the PCC, and therefore must be placed within a tract. As detailed in the analysis from Applicant's wetland scientist in Exhibit 3, BES visited the site and identified four wet areas, two within the EC zone, and two outside of the EC zone. The Applicant will fully protect the two wet features within the EC zone.

The other two features are associated with the infiltration test pit and do not meet the PCC's definition of seep or spring, which requires that the flows be from an aquifer and flow into a channel. As discussed at length by Mr. Summers in Exhibit 3, neither of the features outside of the EC zone exhibits these required features. BES and BDS agree that two features are not "seeps or springs" under the PCC, and therefore replacement within a tract is not required.

However, for proper operation of the site, any wet areas (created by surface water or below-ground features) must be diverted downhill toward the wetland or off-site for stormwater treatment. The Applicant also acknowledges that these wet areas may benefit the down-gradient wetland and wishes to preserve the wetland's function. The Applicant has therefore designed the site grading and infrastructure to facilitate flow of water from

these wet areas to the wetland, as explained in the Geotechnical Report by Hardman Geotechnical Services Inc., submitted with the application. The area containing these features will be graded and filled. Surface water will be directed along the retaining wall toward the wetland, while ground water will continue to be allowed to flow downhill under the surface. Any true seep or spring that may be encountered during construction activities will be piped to the retaining wall and directed down-gradient toward the wetland. The site grading will retain the existing elevation difference between these wet areas and the wetland and the retaining wall and piping features will ensure that any hydration in these areas is not trapped up gradient, but is instead directed downhill toward the wetland.

B. Grading and Wet Areas Outside of EC Zone.

Commissioner Fritz requested additional information regarding the grading standards and whether these could be used to impose a requirement that the wet areas outside of the EC zone be protected. As detailed above, the Applicant proposes to retain the elevation difference between these areas and the wetland and will construct a retaining wall near these features that will direct any flows from these areas down gradient toward the wetland. The grading approval criteria themselves, however, do not allow the City to require the Applicant to specifically preserve these features.

The applicable criteria for grading (33.635.100) require that existing contours must be left in place only where “practicable.” The Hearings Officer made detailed findings regarding the need for regrading of the site in order to allow development, transportation connectivity, and stormwater management. The Hearings Officer found that leaving existing contours in place on much of the site was not practicable. Furthermore, seep and spring-like features outside of the EC zone may benefit the wetland, which is located on the *same* site, not an “adjacent property.” The approval criteria for grading only allows the City to consider changes in site grade that will produce an increase in flows that will impact an “adjacent property.” In this case, the Appellants argue that a potential *decrease* in flows would impact another portion of the Applicant’s property. This is not an impact that can be considered by the City in approving the grading plan under this standard.

Nonetheless, as noted above, the Applicant’s grading plan will direct any surface or sub-surface flows from the wet areas outside of the EC zone down gradient toward the wetland.

C. Stormwater and Wetland/Downstream Recharge.

Appellant raised concerns regarding water that currently flows from upland areas of the site (as stormwater and from seep and spring-like features) to the wetland and other downstream water features. Appellant alleges that the site grading, creation of new impervious surfaces and the proposed stormwater management plan, will deprive the wetland of flows, leading to its eventual destruction.

As detailed in Exhibit 3 and noted above, all seep and spring-like features within the EC area that provide hydration to the wetland will be untouched. The two wet areas located outside of the EC area will be graded and filled to direct any hydration down-gradient toward the wetland. Water from these features is located upland of the wetland and naturally flows, underground or above ground, toward the wetland area. The proposed grading plan will retain this elevation difference and continue to encourage migration of these flows to the wetland. Furthermore, a retaining wall will be constructed adjacent to these areas which will direct any flow from these features toward the wetland. Therefore, any hydrological benefit these features provide to the wetland will not be impacted by the project.

Stormwater currently runs off the site to the wetland or, alternatively, across SW 48th Avenue to the unnamed tributary. Flooding of adjacent roads and private property currently results from the unmanaged stormwater situation on the site. The stormwater management plan for the project will capture stormwater from the roofs of the proposed homes and divert some of this water (from lots 4 and 5) to the wetland, and the remainder of the water to the unnamed tributary. Both diversions will involve treatment of the stormwater prior to discharge, thereby enhancing the quality of the water discharged into the wetland and tributary. Mr. Summers estimates that the amount of stormwater flowing to the wetland will be decreased by approximately 16%. However, this reduction will most likely be concentrated during the wettest months when the wetland is fully saturated. The flows not diverted to the wetland will be diverged to the unnamed tributary, downstream of the wetland, after filtration on-site. Overall, 100% of the water that currently leaves the site will flow either to the wetland (and later to the unnamed tributary) or directly to the unnamed tributary. This will ensure that the downstream functions of the watershed (including as habitat for endangered species) are not impacted by the proposal.

D. Trees.

Appellant raised concerns regarding the trees that will be removed from the site to allow development. As examined in length in the Applicant's tree plan, prior submittals, and the Hearings Officer's findings, the proposal will preserve trees to the extent practical as required by PCC 33.630.200.C. 17 non-exempt trees will be removed from the site outside of the EC area to allow development of the 11 homes, and 2 trees will be removed from the EC zone to allow construction of required street connection. 92 trees will be preserved on the site. The Applicant will mitigate for the tree removal by planting 31 trees and providing a mitigation payment (which can be used by the City to fund tree placement off-site) for 55.5 caliper inches.

Commenter Leslie Hammond requested more information regarding the potential removal of the red cedar tree in the right of way that borders her property. This tree may need to be removed to accommodate the street extension. However, there may be an alternative configuration that will allow the tree to be retained. This issue will be further evaluated by PBOT and Urban Forestry, as public works permitting for the property proceeds into 60% and 90% design. This tree is within the public right-of-way and cannot be retained or removed by the Applicant without the approval of PBOT and Urban Forestry.

5. Conclusion.

The Hearings Officer's decision to approve the Applications is correct and should be affirmed. Residents have not demonstrated that the Hearings Officer erred in his analysis. Further, there is substantial evidence in the whole record demonstrating that Applicant has satisfied the applicable approval criteria. As explained in this letter, Applicant has demonstrated that the criteria related to the main issues – wetlands, traffic impacts, seeps and springs, and tree mitigation – are satisfied. Furthermore, the single biggest issue addressed by the Appellant – the connection of SW Pendleton Street – is not prohibited by Portland's land use regulations; in fact, connectivity of public streets is specifically required unless an applicant requests an exception due to certain conditions not present in this application. The evidence shows that the street connection will benefit emergency providers, pedestrians and bicyclists, and members of the neighborhood who simply want to visit one of their neighbors on the other side of SW Pendleton but must now take a circuitous route through other neighborhoods to other local streets to reach those homes. Applicant respectfully requests that the City Council reject the appeal,

Mayor Ted Wheeler
July 6, 2017
Page 11

affirm the Hearings Officer's decision, and approve the Applications with recommended conditions of approval.

Very truly yours,



Michael C. Robinson

MCR:rsr

Enclosures

cc: Ms. Stephanie Beckman (via email) (w/encls.)
Mr. Fabio De Freitas (via email) (w/encls.)
Mr. Vic Remmers (via email) (w/encls.)
Mr. Mike Peebles (via email) (w/encls.)
Ms. Li Alligood (via email) (w/encls.)
Mr. Keith Buisman (via email) (w/encls.)
Mr. Greg Summers (via email) (w/encls.)

MEMORANDUM

Date: July 3, 2017

Project #: 19731

To: Fabio De Freitas, and Jennifer Tower, PE, PBOT

Cc: Mike Robinson, Perkins Coie
Mike Peebles, PE, OTAK

From: Julia Kuhn, Wade Scarbrough, PE, and Chris Brehmer, PE

Project: Everett Homes at 5920 SW 48th Avenue (City of Portland LU 16-159330 LDS)

Subject: July 6 Evidentiary Submittal – Response to City Council Public Hearing Comments

This memorandum addresses key transportation-related comments made during public testimony at the June 22, 2017 City Council Hearing. Our response below is informed by the Transportation Impact Study prepared for this development dated June 6, 2016 (herein referred to as the TIS). Three key issues discussed at the hearing are addressed herein, including:

- Potential cut-through traffic;
- School Drop-off Activity on SW 48th Avenue; and,
- Street connectivity.

POTENTIAL CUT-THROUGH TRAFFIC

As described in the TIS, Everett Homes will connect the eastern and western termini of SW Pendleton Street via a new north-south street, providing an alternate route between SW 45th Avenue and SW Cameron Road. Some public testimony postulated that additional traffic may use the connect of SW Pendleton Street to cut through the neighborhood via SW 48th Avenue instead of using the existing route between SW 45th Avenue and SW Cameron Road. The existing travel route and the potential new alternate cut-through routes are illustrated in Figure 1.

To assess the potential for cut-through traffic, the TIS (pages 17 – 18) provides an analysis of study intersection operations assuming that a portion of the existing weekday AM traffic on SW 45th Avenue that turns onto SW Pendleton and uses SW 47th Avenue to access the Hayhurst Elementary School would divert to the new route between SW Cameron Road and SW 45th Avenue. This assessment documented that even with the potential cut-through traffic, each of the study intersections would continue to operate acceptably per City operating standards.

In our professional opinion, we believe that little, if any, non-school related traffic traveling along the SW Cameron Road - SW 45th Avenue corridor would divert to the new SW Pendleton Street connection. Further, we conclude non-school related traffic along the corridor will continue taking the existing route shown in Figure 1 and not divert through the new alternate route through the neighborhood for the following reasons:

- The existing route is more direct and includes one turn at an intersection (with a posted 10 mile per hour warning sign) while the alternate route is less direct and is more circuitous (i.e., would require five turns at intersections to traverse, some of which are stop-controlled).
- The posted speed limit on SW Cameron Road and SW 45th Avenue is 30 miles per hour (mph), while the posted speed limit on SW Pendleton Street is 25 mph. With the directness of the SW Cameron route and the speeds, this route will continue to be a more convenient and quicker route for drivers.
- The SW 45th Avenue/SW Cameron Road intersection currently operates as free-flow for eastbound-to-southbound and northbound-to-westbound movements; consequently, the existing route is entirely free-flow, while traffic will encounter at least one posted stop sign in either direction along the alternate route as shown in Figure 1 (northbound-to-westbound traffic would be stop-controlled northbound at SW 48th Avenue/SW Cameron Road, while eastbound-to-southbound traffic would be stop-controlled at Pendleton Street/SW 45th Avenue)¹.
- Although the approximate lengths (i.e., number of lineal feet) of the existing and alternate routes are approximately the same, the travel times on the existing route are quicker and more convenient.

We do anticipate re-routing of some local neighborhood trips to take advantage of the new roadway connection. For example, residents living near the intersection of SW 47th Avenue/SW Pendleton Street destined to and from the west on SW Cameron Drive are likely to use the new connection. Similarly, residents living near the intersection of SW 48th Avenue/SW Pendleton Street destined to and from the south along SW 45th Avenue are also likely to use the new roadway connection. These residents are already traveling portions of SW Pendleton Street and SW 48th Avenue, and their redistribution should balance out, resulting in a negligible increase in traffic volumes and resultant impact to adjacent neighbors.

¹ Subject to PBOT review and approval, there is potential for installing a stop sign southbound on SW 48th Avenue approaching SW Pendleton Street and a stop sign northbound on the new roadway through the east side of the site approaching SW Pendleton Street.



**Comparison of Existing and Alternate Routes from SW 45th Ave to SW Cameron Rd
Portland, Oregon**

**Figure
1**

SCHOOL DROP-OFF ACTIVITY ON SW 48TH AVENUE

Some members of the public testified that the new roadway connectivity associated with the proposed development would conflict with use of the existing neighborhood path as a safe route to Hayhurst Elementary School. This testimony suggested that increased drop-off activity in this area would pose impacts to children walking to school along SW 48th Avenue, which is a designated Safe Route to School.

As described in the TIS and detailed above, the extension of SW Pendleton Street within the development has the potential to divert some school drop-off traffic to the area of SW 48th Avenue south of SW Pendleton Street, which is reportedly used by some drivers to avoid the queues at Hayhurst Elementary School. The TIS documented six (two southbound and four northbound) pedestrians on SW 48th Avenue south of SW Pendleton Street between the 7:35 to 8:35 AM peak hour (encompassing the 8:00 AM school start time). A total of 10 pedestrians (adults and children) were counted crossing SW Pendleton Street at SW 48th Avenue during the same period. These traffic counts are similar to the observations made by Fabio De Freitas of PBOT in June 2017.

While the additional school drop-off activity identified in the TIS has the potential to result in an incremental increase in vehicle traffic along SW 48th Avenue, we do not believe the impacts require further mitigation for the following reasons:

- The proposed development will be completing sidewalk and pavement widening improvements along the full length of the site frontage on SW Pendleton Street and SW 48th Avenue per standard City improvement requirements.
- The existing segment of SW 48th Avenue between SW Cameron Road and SW Pendleton Street is relatively narrow (approximately 20 feet wide) and offers limited attractiveness for new cut-through trips relative to travel along SW Cameron Road or SW 45th Avenue. The narrow geometry serves to reduce travel speeds along the roadway. Furthermore, SW 48th Avenue does not link to SW Iowa Street; rather, there is a narrow pathway over private property linking the south terminus of SW 48th Avenue with SW Iowa Street.
- The proposed development is not expected to add any net-new vehicle trips to the segment of SW 48th Avenue south of SW Pendleton Street — only some diverted school drop-off traffic is anticipated.
- Providing a secondary connection east from the site via SW Pendleton Street offers existing homes along SW 48th Avenue and new site-generated vehicle trips a secondary access. Without the connection to the east, all existing trips accessing SW 48th Avenue between SW Cameron Street and SW Pendleton Street will continue to do so as will all new site-generated trips.
- The presence of children walking along SW 48th Avenue is not a new or unexpected condition for school drop-off traffic.

For these reasons, the proposed roadway connection is not expected to compromise the safety of children walking to school.

STREET CONNECTIVITY TESTIMONY

Mr. Phil Healy provided an undated letter included as Exhibit 3 in the *Hayhurst Neighborhood Association's Memorandum in Opposition to 11-Lot Subdivision, As Proposed* dated June 22, 2017. In Mr. Healy's opinion, construction of a through street is not required by City of Portland policies, and would be detrimental to the neighborhood.

Mr. Healy notes that Portland Master Street Plan Map 11.11.6 Southwest District identifies a "Street Connection Point Certain" arrow pointing south from the development site to Iowa Street and a "Street Connection Point Certain" arrow pointing from the site to the east. The plan also identifies extension of the two respective roadway connections with undesignated alignments. A copy of Portland Master Street Plan Map 11.11.6 is included in Attachment "A" to this letter.

Mr. Healy further cites City of Portland Zoning Code Section 33.654.110.B.1.c which states that through streets and pedestrian connections are required where appropriate and practical, taking into consideration of spacing needs, existing street patterns, and characteristics of the site, adjacent sites, and vicinity. Mr. Healy believes that, in lieu of a street connection, a pedestrian path could be constructed along the east property line with less grading impact and meeting the City's connectivity policies. He further indicates that there is no compelling need for additional connectivity and no significant reduction in vehicle miles traveled gained by a street connection.

In our review of the letter, we believe that Mr. Healy's conclusions may be best responded to by the "Issues and Constraints" discussion specific to the Southwest Portland Master Street Plan contained on page 11-28 of the Portland Master Street Plan (which directly precedes Portland Master Street Plan Map 11.11.6) and states:

"The Southwest District continues to need a connected street system, including bicycle/pedestrian accessways, but is limited by barriers such as terrain, streams, environmental resources, and existing development. With expected increases in the number of households and dwelling units in the area, completion of the local street system will be necessary to provide access to the anticipated areas of new development and from those areas to neighborhood activity areas, transit, and arterials."

In lieu of this Master Street Plan discussion, we offer the following additional observations:

- The street connection points specifically identified on Portland Master Street Plan Map 11.11.6 clearly convey the City's plans to connect SW Pendleton Street between SW 48th Avenue and its existing terminus. It also identifies the extension of SW 48th Avenue south to SW Iowa street.

- The Portland Master Street Plan specifically acknowledges that there are barriers such as terrain, streams, environmental resources, and existing development that will need to be addressed to provide a connected street system.
- The 200 foot spacing guideline for street and pedestrian connections in City of Portland Zoning Code Section 33.654.110.B.1.a is a guideline and not a requirement. The proposed development would locate the north-south roadway connection approximately 167 feet east of SW 48th Avenue based on the proposed alignments, as shown in Exhibit 1 below. In our professional opinion, the proposed spacing is appropriate for local streets given the existing roadway locations and spacing.
- City of Portland Zoning Code Section 33.654.110.B.1.b further states that “Where the street pattern in the area immediately surrounding the site meets the spacing of subparagraph a., above, the existing street pattern should be extended onto the site.” This language also supports connectivity of SW Pendleton Street.
- While no “regional” cut-through traffic (i.e., non-school or neighborhood related) is expected to use the new roadway connection as an alternative to traveling along the SW Cameron Road – SW 45th Avenue corridor, the new roadway connections will eliminate two current dead-end streets, allowing local residents along SW 48th Avenue, SW 47th Avenue and SW Pendleton Street to better access their homes by vehicle, walking and cycling while providing emergency responders with alternative connections. This extension also offers a convenient cycling and walking route to the TriMet bus stop located at SW 45th Avenue/SW Pendleton Street for residents of the neighborhood.

Exhibit 1. Local Street Spacing as Proposed

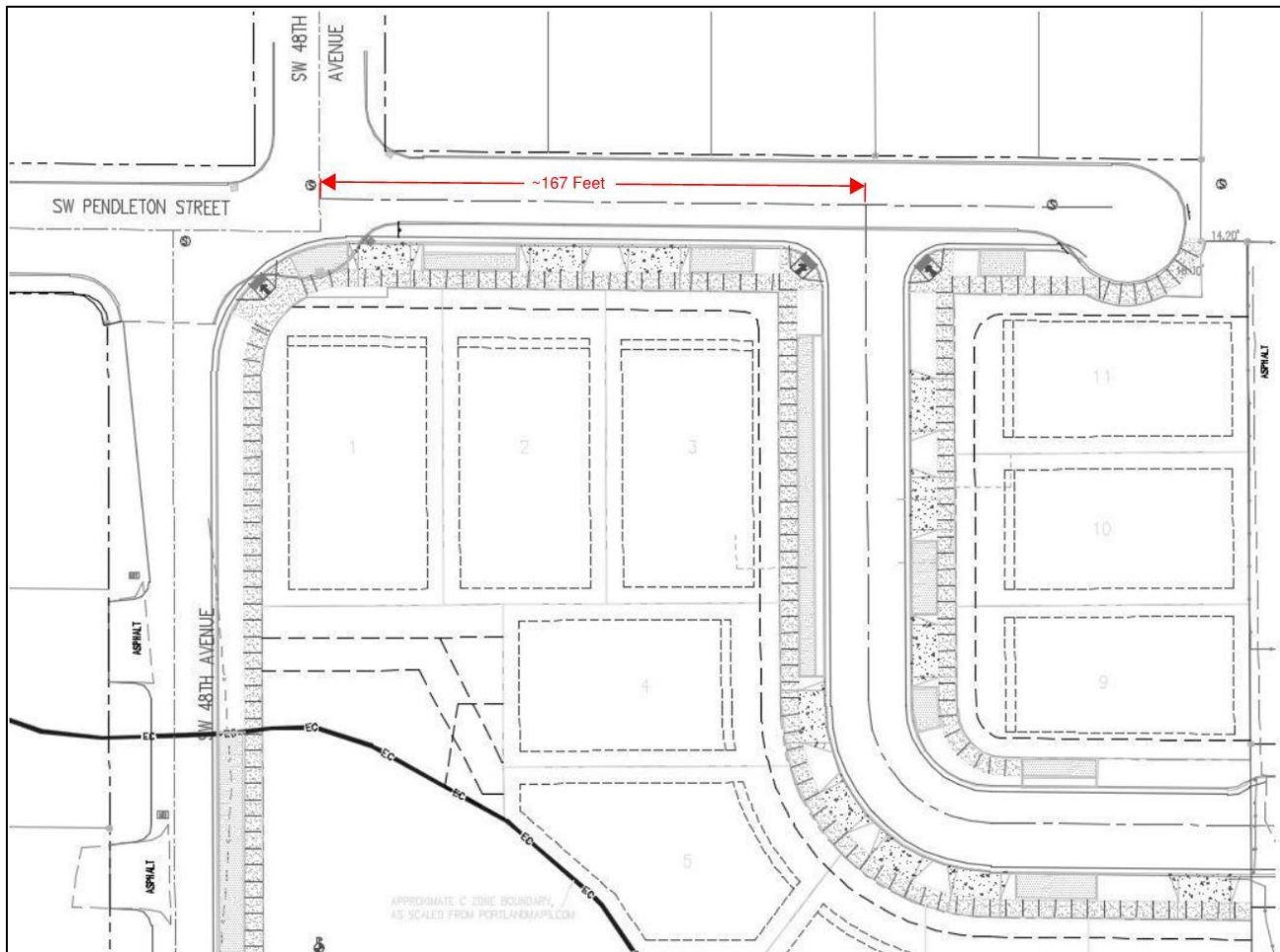


Image Source: OTAK

CONCLUSION

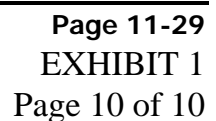
Having reviewed the testimony offered at the June 22 City Council public hearing, we continue to believe the relevant City transportation-related approval criteria have been addressed and satisfied by the TIS. We concur with PBOT staff testimony offered by Fabio De Freitas of PBOT at the June 22, 2017 City Council Hearing who stated that:

- 1) the new roadway connectivity through the neighborhood identified by the proposed development does not warrant implementation of traffic calming measures,
- 2) completing the street connection with the proposed development will not create adverse impacts with respect to pedestrians or bicycles in the area or the goals of the Safe Routes to School program, and
- 3) the proposed street connection is compelled by the approval criteria associated with Portland Master Street Plan Map 11.11.6.

If you have questions or would like to discuss this matter further, please contact us.

Attachment: Portland Master Street Plan Map 11.11.6

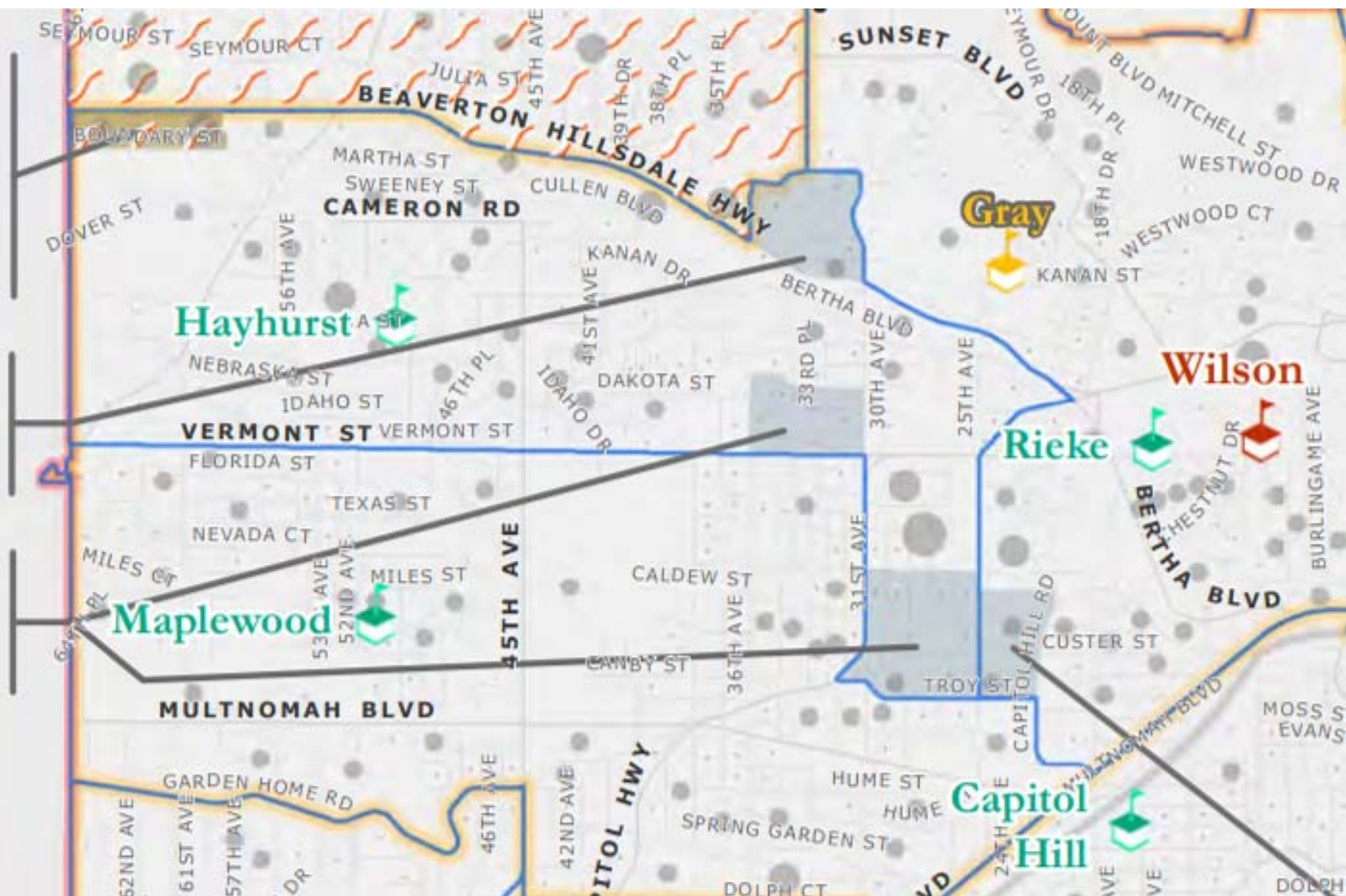
Attachment A Portland Master Street Plan
Map 11.11.6



Bridlemile to
Hayhurst /
West Sylvan
to Gray

Rieke to
Hayhurst

Maplewood
to Hayhurst



To: Mike Peebles, Otak, Inc.

From: Greg Summers, Anchor QEA, LLC

cc: Vic Remmers, Everett Custom Homes
Li Alligood, Otak, Inc.
Mike Robinson, Perkins Coie LLP

**Re: Everett Custom Homes Development Site
City of Portland – Supplemental Information Submittal**

Introduction

The purpose of this memorandum is to provide a response to the information submitted by the Hayhurst Neighborhood Association's Appeal of the Hearings Officer's Approval of the Everett Custom Homes, Inc., Application for Subdivision Approval and Environmental Compliance Review submitted on June 22, 2017, and submitted to the City of Portland (City) during the public hearing for the proposed Everett Heights residential subdivision project in the Hayhurst Neighborhood of Portland, Multnomah County, Oregon (Bureau of Development Services [BDS] Case File LU 16-159330 LDS EN).

Background

In a March 2017, staff from the City's Bureau of Environmental Services (BES) identified potential springs on the proposed Everett Heights subdivision development site (BDS Case File LU 16-159330 LDS EN). At the time, two of these potential springs appeared to be outside of the environmental conservation overlay zone boundary, which prompted questions about the ability of the proposed subdivision project to meet the requirements of Section 33.640 of the City Zoning Code.¹ The identified potential springs were described in the BES site visit summary as two non-flowing springs located within a former infiltration test pit and one flowing spring located just downslope from this pit. In their report to BDS, BES stated it was not clear if the two non-flowing potential springs would have presented as surface water if the infiltration test pit had not been dug and suggested they could have remained underground as groundwater flow. BES mapped the locations of these features using a handheld GPS unit and acknowledged the accuracy of this method was not exact. Because of this, BES watershed staff returned to the project site to mark the locations of the potential springs for survey. As reported by Jocelyn Tunnard of BES during a March 10, 2017 telephone conversation with

¹ Section 33.640 of the Portland Zoning Code requires all streams, springs, and seeps to be preserved in a tract whose boundary must be 15 feet away from the edges of the stream, spring, or seep.

Matt Kuziinsky of Anchor QEA, LLC, the potential springs thought to be outside of the environmental conservation overlay zone boundary were marked with orange flagging labeled "BES Spring" followed by a number. In total, four areas were flagged by BES during this site visit.

Review of Investigation

The locations of the four flagged areas discharging water and the considered potential springs were surveyed by Northwest Surveying of Beaverton, Oregon, on March 17, 2017, and are shown in Figures 1 and 2. As shown in these figures, only the two non-flowing potential springs associated with the infiltration test pit are located outside of the Environmental Conservation Zone (EC) boundary. The other potential springs that exhibited flow in early March are within the EC boundary. Therefore, the areas exhibiting discharge at undisturbed locations and not associated with the infiltration test pit are within the EC zone.

To be considered a spring, an area must fit the definition for such features per Section 33.910 of the City Zoning Code.² This definition is as follows:

Seep or Spring: The point where an aquifer intersects with the ground surface and discharges water into a stream channel that flows into a wetland or other water body.

A seep or spring that flows on an annual basis would show evidence of channelized flow due to years of flow patterns developed from repeated discharge. This is likely the reason for the inclusion of a channel in the definition. Everyone visiting the site has agreed that there is no channelized flow emanating from the areas identified in March. Additionally, no one observed any channelized flow or water discharging into a channel from these areas at any point during this investigation.

Consequently, based on the definition of a seep or spring, it has been concluded and agreed upon by BES and BDS that the potential springs do not meet the City's definition of a seep or spring because they are not associated with an aquifer and do not discharge directly to a stream channel (or any type of channel).

Regardless, all the areas surveyed and identified as discharging water not associated with the infiltration test pit are within the EC zone. Additionally, the two areas associated with the infiltration test pit are outside of the development footprint by more than 15 feet. However, they are upslope of or within an area proposed for a retention wall. The wall will be constructed to allow water to flow through it to provide a pathway for any surface water from this area to reach the wetland.

² This definition is found in the regulations in effect on the date of the project's application, which govern the City's review of the project.

Aquifers

On June 22, 2017, evidence was submitted by Jonathan J. Rhodes on behalf of the Hayhurst Neighborhood Association that provided information contesting that the discharge areas are discharge from an aquifer. In the information supplied by Mr. Rhodes, he contests that any water discharging from the ground is discharge from an aquifer and includes several definitions of aquifer, most of which would not include the areas in question per the definitions.

However, inherent in all the definitions of an aquifer that were supplied is the fact that aquifers store water. This storage of water is what makes aquifers valuable as a source of water for wetlands, streams, and rivers. As the City's definition of seeps and springs indicates, this stored water is released from aquifers in the form of seeps or springs. The value of such areas is that they store and emit water later in the spring after rains have abated, providing a cool water source for wetlands and streams during the late spring and summer months.

As previously noted and observed in the field, these areas ceased flowing by late March, even considering the abnormally wet spring, further confirming that these areas do not fit the City's definition of seep or spring. Nor would they fit most definitions of seeps or springs or the definitions of aquifers supplied by Mr. Rhodes. What was observed was the discharge of a high water table during an abnormally wet winter with fully saturated soils and not the discharge of stored water from an aquifer. If this was stored water emanating from an aquifer as seeps or springs, they would be exhibiting discharge at least until early to mid-summer.

Effects to Wetland Functions

Hydrology

Water reaching the wetland would be minimally impacted by the development. The wetland is fed by direct precipitation, overland flow, and a high water table during winter months. The location of the wetland will remain at the lowest portion of the site, and the seasonal high water table would be minimally affected or unaffected by the development. That is, the additional development of approximately 1.7 acres within a fully developed watershed will not have any additional appreciable influence on the water table in the area, and the development will not have any effect on the amount of precipitation falling on the wetland. Therefore, those two sources would be unimpacted (direct precipitation) and minimally impacted (seasonal high water table) by the development.

The third source of hydrology to the wetlands is overland flow and shallow flow within the upper soil. Currently, overland flow is minimal, as evidenced by the lack of channelized flow across the site. Sheet flow over the site is minimized by the thick vegetation that exists on site. Heavily vegetated areas that also receive appreciable amounts of water exhibit channelized flow because the vegetation inhibits sheet flow and causes channels to form around the vegetation. Therefore, the lack

of any channelized flow across the site indicates that overland flow is a minimal contributor to this wetland.

Water in the upper permeable soil layers that contributes to the wetland hydrology in winter months is also a minimal contributor to the wetland. These soils have water in the upper few feet for a minimal time during winter months. This is evidenced by the fact that most of the site is vegetated by upland vegetation. Upland vegetation cannot survive in prolonged saturated soil conditions and would not be present if these soils were saturated for more than a couple of weeks of the growing season.

Currently, the contributing watershed to the wetland and small drainage covers 30.69 acres and contributes 37.29 cubic feet per second (cfs) of water during a 25-year flow event (Otak 2017). The proposed development would reduce the contributing area and flow by 16% to 26.02 acres and 31.21 cfs, respectively, for the same event. The 16% reduction in flow at the SW 48th Avenue discharge site would be returned to the unnamed tributary just downstream at the current Pendleton outfall. Therefore, there will be no reduction in flow to the unnamed tributary or other waters from the Pendleton outfall downward.

As discussed, little impact to hydrologic functions would occur due to the proposed development. This is because most of the water currently entering the wetland would still enter the wetland via a high seasonal water table and direct precipitation. Additionally, stormwater flows from Lots 4 and 5 would be treated in on-site Low Impact Development Approaches facilities and then directed to the wetland. Flow between Lot 6 and the wetland and behind Lots 6, 7, and 8 would still flow to the wetland via overland flow due to the proposed grading plan. A small amount of surface water flow would be diverted (i.e., Lots 6, 7, 8, and 9 and some of both the Pendleton Road extension and Lot 10). Other on-site flow (i.e., the remainder of the Pendleton Road extension and Lot 10 and Lots 11, 1, 2, and 3) currently flows to SW 48th Avenue and not the wetland. Additionally, runoff from behind the retaining wall between Lot 6 and the wetland will be collected and daylighted to then flow into the wetland.

Functions

All collected stormwater will be treated per City standards prior to returning the water to the basin. Currently, much of the stormwater runs down SW 48th Avenue and directly into the unnamed tributary without any treatment. All future water will be routed to stormwater treatment facilities, either on site or off site, improving water quality over current conditions. As noted above, the water that will not flow to the wetland under the proposed grading and stormwater management plan will be treated and discharged into the unnamed tributary. This is the current destination of these flows, but the proposed grading and treatment plan will allow this water to reach the tributary without flooding SW 48th Avenue and receive treatment before entering the tributary.

There are no known Endangered Species Act (ESA)-listed salmonids or designated critical habitat on the site or upstream from any of the proposed outfall areas. The closest critical habitat is a mile downstream in Fanno Creek. Since all stormwater will still enter the unnamed tributary either via the wetland or directly, upstream of any critical habitat, and treated to a higher-than-current water quality standard, there will be no negative effect to flows or water quality on the downstream critical habitat or any ESA-listed species.

The EC zone and wetlands provide a valuable water quality and biological function to the unnamed drainage by filtering water, providing water in early summer, keeping the water temperature down via shading, and providing habitat for birds and small mammals. However, the small size of the wetland limits the ability of the wetland to provide the water quality functions into late summer or early fall. The functions this area does offer will continue to be provided, because these areas will not be impacted by the development.

This wetland currently provides wildlife habitat for birds and small mammals. The non-native vegetative species and small size of the area limit the value of this habitat, and the seasonal nature of the wetland limits its ability to provide habitat for many amphibian species. However, the fact that the wetland is relatively mature and forested increases its ability to provide habitat function and provides habitat for those species not requiring ponded water into the summer.

The habitat provided by the wetland would be improved as the wetland and EC areas will be avoided by the development, invasive species will be removed, and native species will be planted, providing a native buffer to the wetland area. Any impacts to the wetland associated with the road widening will be mitigated off site at an approved mitigation bank, per regulatory agency guidelines.

Conclusion

Anchor QEA remains of the opinion that the features identified as potential springs do not meet the requirements of the City's definition of a seep or spring. Rather, the groundwater outflow observed in these locations was a temporary condition caused by above-normal rainfall and is not indicative of the persistent, aquifer-driven flow that is present with a true spring or seep. The ephemeral nature of these features is further evidenced by the lack of wetland characteristics downgradient of them and the lack of an established channel or flow path between them and the on-site stream and wetland.

Indirect impacts to the wetland due to the associated development are not of sufficient nature to alter the wetland functions or its size. That is, the primary sources of hydrology for this wetland (direct precipitation and seasonal high water table) would not be affected, or would possibly be very minimally affected, by such a small development in an already fully developed area.

Downstream flows to the unnamed tributary would not be impacted, and improved water quality treatment of those flows will occur compared to existing conditions, which see untreated stormwater

flowing directly into the unnamed drainage off of SW 48th Avenue. This ensures that no indirect impacts would occur to the unnamed tributary or any ESA-listed salmonids in downstream waters.

Reference

Otak, Inc. (Otak), 2017. *Everett Heights Conceptual Stormwater Management Report*. Land Use Review Case File: EA 15-242325. January 26, 2017.

Figures

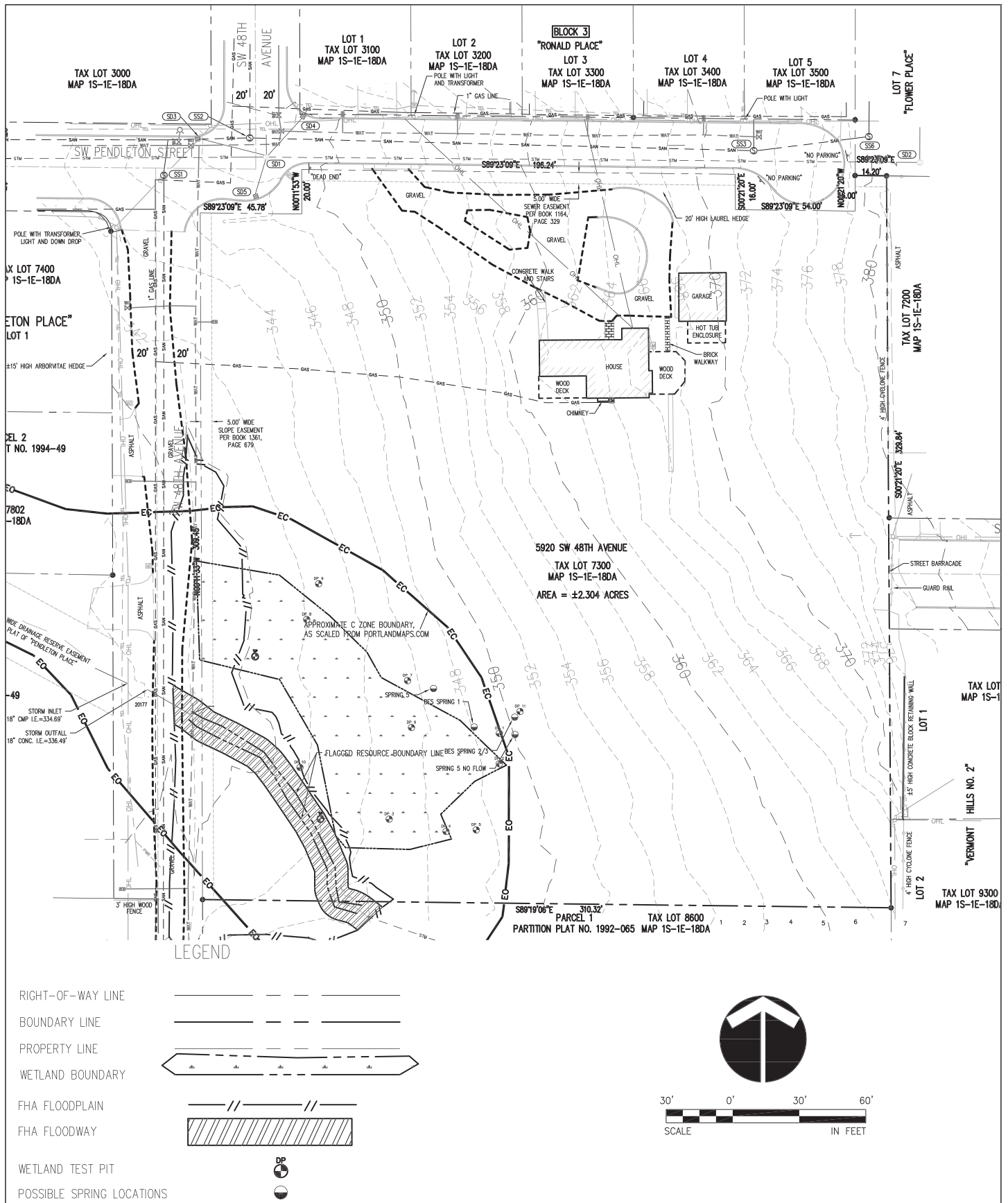


FIGURE 1 - OVERVIEW MAP
EVERETT HEIGHTS SUBDIVISION
PORTLAND, OR

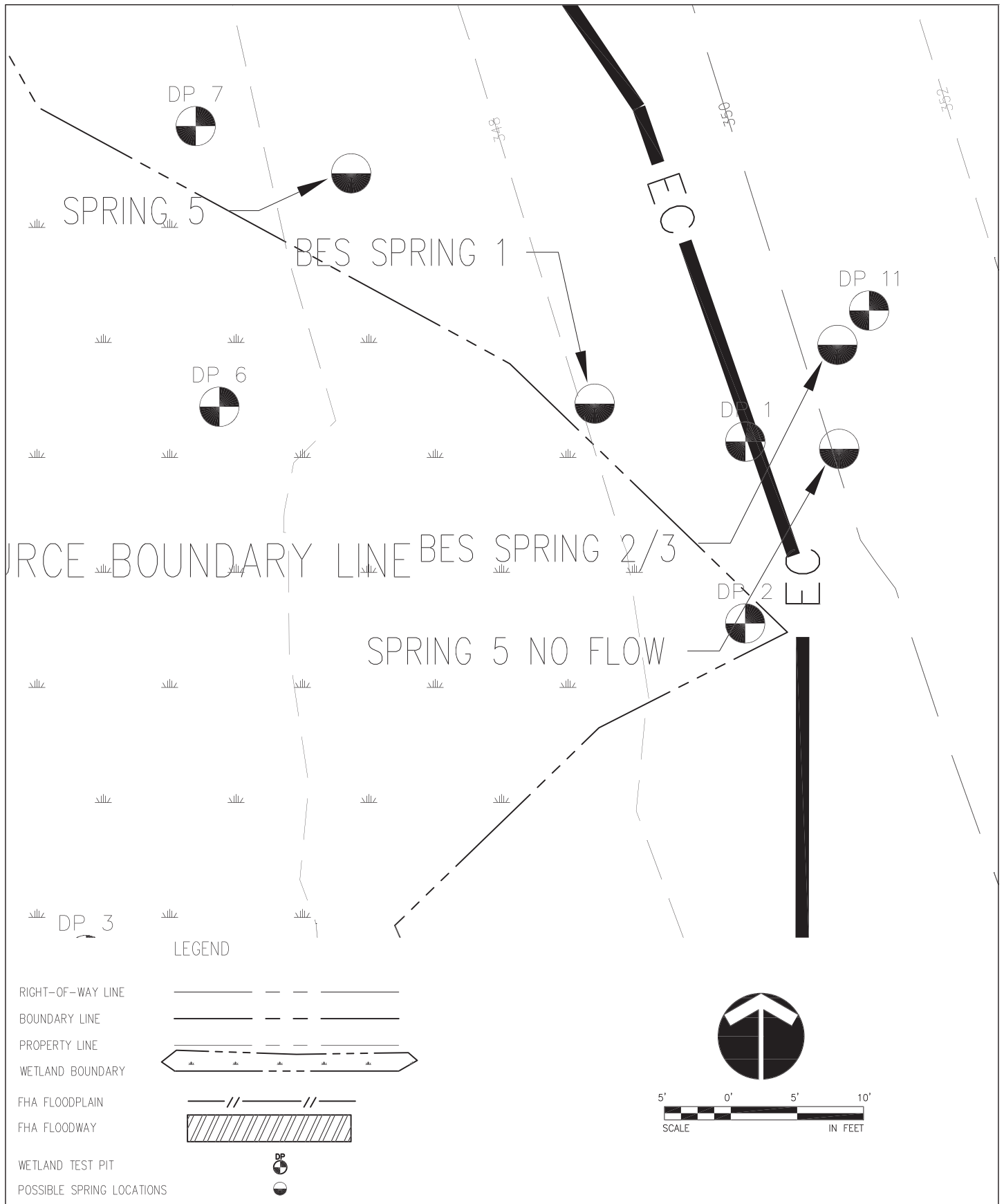


FIGURE 2 - DETAIL MAP
EVERETT HEIGHTS SUBDIVISION
 PORTLAND, OR

PROFESSIONAL HISTORY

Anchor QEA, LLC, Principal Scientist and Senior Associate, March 2013 to present

Beak/Jones & Stokes/ICF, Sr. Wetland Scientist, April 1997-March 2013

Jacobs- Bechtel, NEPA Specialist, 1995 – April 1997

Beak Consultants Incorporated, Wetland Scientist, April 1993 – 1995

EDUCATION

North Dakota State University, Fargo, MS, Range Science, 1993

University of Wisconsin, Platteville, BS, Reclamation (biological emphasis), 1990

PROFESSIONAL REGISTRATION AND MEMBERSHIP

Professional Wetland Scientist (0001152)

EXPERIENCE SUMMARY

Mr. Summers is a Senior Wetland Scientist, NEPA specialist and senior Regulatory Specialist. He oversees the preparation of EISs, EAs, BAs, BEs, wetland projects of all varieties, and threatened and endangered compliance. Mr. Summers manages all varieties of wetland projects and performs wetland delineations, impact assessments, functions and values assessments, permitting, and mitigation. He manages projects in support of land-use planning, Section 404 permit applications, and state and local wetland enforcement activities, including the Land Conservation and Development Commission. Mr. Summers has provided expert testimony for both trials and at public land-use hearings for wetland law. He has worked in the United States of OR, WA, MT, AK, ID, WY, UT, CA, WI, ND, IL, VA, KY, TN, GA, MS, and the Canadian Provinces of British Columbia, Alberta, Northwest Territories, and Ontario.

REPRESENTATIVE PROJECT EXPERIENCE

A sample of representative projects include:

Wetlands/Regulatory Compliance/Permitting

Big Hanaford Creek Wetland Permitting, Mitigation Design, Construction Plans, Observation and Monitoring, and Mitigation Bank—TransAlta Centralia Mining LLC, WA

Greg oversaw the wetland delineations and JARPA for the Kopiah and Rail upgrade projects. As mitigation for those projects, a large scale wetland/stream mitigating project was identified and designed to compensate for the temporal loss of wetlands and streams during mining totaling 152.7 acres. In addition to all JARPA requirements, Greg oversaw the development and preparation of construction bid documents for the 152.7 acre wetland and stream restoration project and assisted project owner in the bid selection process. He also oversaw the preparation of a construction observation and monitoring plan to provide on-site review of the excavation of the new stream channel, construction of large woody debris stream structures, and installation of over 300,000 native trees, shrubs, and emergent plants. Subsequent to the construction of the mitigation site, 176.97 acres

of the surrounding area was designed as a mitigation bank. Greg oversaw the mitigation design and completion of the mitigation bank prospectus.

Mitigation Bank Assessment, Confidential Client, Columbia River

Greg managed the evaluation of a 1000 acre site in the lower Columbia River as a potential mitigation bank. The site was assessed for suitability as a mitigation bank by determining the potential for wetland restoration, creation, and/or enhancement and also as potential Columbia White-tailed Deer and listed salmonid habitat. After visiting the site, potential mitigation credits for wetlands, Columbia White-tailed Deer, and listed salmonids were estimated based upon existing conditions and the potential need for credits in the service area. This information was used to determine if it is desirable to establish a mitigation bank in this area.

Centralia Mine West Field Expansion Project, TransAlta Centralia Mining, LLC, Lewis County, Washington

Project Director. TransAlta Centralia Mining (TCM) has identified lands immediately west of the Centralia Mine permit area as a potential source of additional coal to supplement the permitted reserves at the mine. In support of future permitting to expand the existing permit area boundary, TCM investigated the environmental resources present in the West Field expansion area that could be affected by any mining operations there. Greg managed the documentation of the baseline environmental conditions for wildlife resources, fishery resources, and wetlands that occur on and around the West Field expansion area, and prepared the baseline wildlife and wetlands report. For the baseline wildlife effort, existing wildlife habitats on the expansion area were mapped, wildlife expected to occur in the expansion area were identified, and an assessment was made of the likelihood that the expansion area supports candidate, proposed, threatened or endangered wildlife species identified by federal or Washington state agencies. For the wetland report, a delineation, functions and values assessment, and preliminary impact assessment and mitigation plan were completed.

Recreational Land Use Evaluation, Confidential Client, Washington and California

Project Director. Mr. Summers supervised the development and preparation of a recreational land use evaluation for a client with large land holdings in Washington and California. The client requested the study to determine if revenue could be generated from their lands for recreational use while they sit idle waiting for timber prices to recover. An exhaustive study of potential uses (e.g., destination resort, hunting, fishing, road rallies, zip line park) was undertaken and then refined based upon upfront cost, liability, and low revenue returns, among others.

Mt. Scott Creek Dam Removal, Clackamas County, Oregon

Project Manager for the removal of a dam on Mt. Scott Creek. Project included the preparation of a biological assessment to determine potential impacts on ESA listed fish and general biological insight into the design of the stream channel once the dam is removed, including substrate,

channel shape, and planting recommendations. Greg also managed the preparation of all permits and supporting material for project construction.

Mitchell Creek Sedimentation Pond BA, TransAlta Centralia Mining, LLC, Lewis County, Washington

Project Director. Directed the preparation of a BA evaluating effects on sensitive fish species of a mine-related sediment pond proposed in a headwater tributary of Mitchell Creek. Species addressed in the BA were bull trout and coastal cutthroat trout. Conservation measures were designed to mitigate impacts of the proposed action.

Time Oil Road Turtle Underpass Design, Port of Portland, Multnomah County, Oregon

Project Director. Reviewed available information on the design and construction of small-animal underpasses and designed a generic underpass system to allow safe passage of western painted turtles and other small animals under Time Oil Road. The underpass system included orientation/exclusion fencing and a single underpass linking wildlife habitat areas.

Thor Lake Independent Review, Mackenzie Valley Land and Water Board, Northwest Territories, Canada

Mr. Summers conducted an independent review of wetlands, surface water, and water quality sections of a mine permit application prepared for a proposed rare earth metals mine near Great Slave Lake, Northwest Territories, Canada. The mine proposes to mine, mill, and produce rare earth carbonate and oxides, zirconium, niobium and tantalum oxides, and possibly gallium from the Nechalacho deposit. The proposed mine has two components, and underground mine and flotation plant, and a hydrometallurgical plant. The metals would be shipped by barge across Great Slave Lake to the hydrometallurgical plant. Impacts were assessed from the mining, processing, and transportation processes to wetlands, surface water, water quality, and potential receptors. The results of the study were presented to the Mackenzie Valley Land and Water Board for consideration in granting a permit to Avalon Rare Metals, the project proponent.

Sutherlin Knolls Industrial Park, Oregon Economic & Community Development Department, Oregon

Project Manager. Mr. Summers prepared the Purpose & Need/Alternatives Analysis and Conceptual Mitigation Plan for the 200-acre Sutherlin Knolls Industrial Park (SKIP) in Sutherlin, Douglas County, Oregon via the "Project Ready Industrial Sites Initiative." The SKIP received industrial certification from OECDD in February 2006.

Oak Creek Industrial Park, Douglas County Department of Public Works, Roseburg, Oregon

Project Director. Mr. Summers oversaw the performance of multiple wetland planning services including a Wetland Delineation, Wetland Functional Assessment, Conceptual Site Plan, Purpose & Need/Alternatives Analysis, and Conceptual Mitigation Plan for the proposed 23-acre Oak

Creek Industrial Park near Roseburg, Douglas County, Oregon via the “Project Ready Industrial Sites Initiative.” The OCIP received industrial certification from OECDD on July 15, 2005.

Elgin and La Grande-to-Cove Gas Line Extension Projects, Avista Corporation, La Grande, Oregon

Project director. CWA Section 404 and ESA compliance including wetland delineations and potential, threatened, endangered, and sensitive species surveys for a 14-mile natural gas line extension project in eastern Oregon. Supervised collection of field data on soils, vegetation, and hydrology; project budget; final report; and preparation of site maps.

Union-to-Cove Fiber-Optic Installation Project, GTE, Union/Cove, Oregon

Project director. CWA Section 404 and ESA compliance including wetland delineations and surveys for potential, threatened, endangered, and sensitive species for a 12-mile fiber-optic cable installation project. Supervised the fieldwork to collect data on soils, vegetation, and hydrology; project budget; final report; and preparation of project maps using AutoCAD and GIS. Coordinated with the Corps, Department of State Lands, and the Oregon Department of Transportation to determine jurisdictional status of the waters in the project corridor and related permitting requirements.

Level III Fiber-Optic Project, Kiewit Construction, Oregon and Washington

Project Manager for the natural resource baseline surveys, noxious weed surveys, construction oversight, and noxious weed control and mitigation plan for more than 500 miles of right-of-way for the installation of fiber-optic lines in five counties in southeastern Washington and northeastern Oregon. Baseline data were collected on waters of the United States and State, noxious weeds, and general habitat. All resources were mapped on project maps to assist in minimizing impacts to the maximum extent practical, mitigation plans were prepared, and construction oversight was completed.

Jenkins-Kim Significant Natural Resource Inventory, LDC Design Group, Inc., Washington County, Oregon

Project Manager. Oversaw the preparation of a Washington County Section 422 Significant Natural Resource Inventory (SNRI) as part of the permitting effort for a 20-acre residential development site recently annexed into the urban growth boundary. The SNRI described and mapped wetland, riparian, and wildlife habitat types; assessed their resource value to wildlife; and determined project impacts on significant natural resources.

Skookumchuck Gravel Pit Wildlife Resources Report, TransAlta Centralia Mining, LLC, Lewis and Thurston Counties, Washington

Project Director. Assessed the potential impacts of a proposed 41-acre gravel pit expansion on Washington priority species (Bald Eagle, western gray squirrel, Mardon skipper) and habitats

(Oregon white oak woodland). Also developed a management plan to protect and mitigate important wildlife habitats and species.

Annual NPDES Report, Port of Portland, Oregon

Project Manager for the completion of the 2000-2001 Annual Report for the Port's joint National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Discharge Permit. Project includes contacting the managers of each Operating Area (i.e., Marine, PDX, and Properties) to obtain information on stormwater-related activities (e.g., training, monitoring) that occurred during the 2000-2001 monitoring year and compile a report summarizing the results.

PDX Airfield Safety Improvements Project BA, Port of Portland, Oregon

Project manager for the preparation of a biological assessment determining the potential effects of implementing runway safety improvements on ESA listed species. Potential effects to bald eagles and plants were assessed.

Natural Resources Inventory and Assessment Mapping Project, Port of Portland, Oregon

Overall project director of the Port of Portland's habitat inventory of their properties. Supervised and coordinated the field effort to collect data on vegetation and habitat elements for undeveloped areas on over 16 Port-owned properties. Tested and refined data collection procedures and trained others in the use of this protocol. Aerial photographs were used to map individual habitats. Provided updated maps and data forms to the Port for entry into an Access database and coordinated in-house map digitization and data entry efforts to aid the Port in meeting their project deadlines.

Annual National Pollutant Discharge Elimination System Report, Port of Portland, Portland, Oregon

Project Director . Prepared the 1999-2000 and 2000-2001 annual reports for the Port's joint NPDES municipal separate storm sewer system discharge permit. Contacted managers and other personnel of each operating area (i.e., marine, aviation, and properties) to obtain information on the implementation of the best management practices addressed in the Port's municipal storm water management plan, including related training and monitoring. Supervised the preparation of a detailed report summarizing results that was submitted to the Oregon Department of Environmental Quality.

Little Deschutes River Biological Evaluation, Oregon Department of Transportation, Klamath County, Oregon

Botanist. Prepared BA for proposed bridge reconstruction project. Prepared USFS BE addressing impacts of bridge construction on any PETS species.

Badger Creek Wetland Delineation and Biological Evaluation, ODOT, Wasco County, Oregon

Wetland scientist. Mr. Summers performed a wetland delineation, impact assessment, and conceptual mitigation report for proposed bridge reconstruction project. Prepared a wetland delineation report and supporting documentation for 404 permitting.

Chanute Air Force Base, Chanute, Illinois

Ecological Risk Assessor. Conducted ecological risk assessment as part of proposal. Used hypothetical bioassay values to conduct risk assessment following EPA Risk Assessment Guidance for Superfund, Vol. II Environmental Evaluation Manual, for wildlife, threatened and endangered species, and vegetation.

Waste Area Groups 22, 23, 1 and 7, and 17, Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Ecological Risk Assessor. Reviewed and commented on ecological risk assessments conducted as part of cleanup effort for these waste area groups at Paducah Gaseous Diffusion Plant. Contaminants of concern included most organics, inorganics, and radionuclides. Ensured that EPA guidelines were followed and that results were correct for all endpoint species.

Klamath River Hydroelectric FERC Relicensing, PacifiCorp, Klamath Falls, Oregon

Project director. As part of the FERC relicensing effort, Greg's firm was retained to determine the anadromous fish production potential of stream habitat in the Upper Klamath River basin under various fish passage alternatives developed by participants in the relicensing process. To answer this question, state-of-the-art ecosystem diagnosis and treatment model (EDT) was used to determine the quality and quantity of over 200 miles of stream habitat. Data on 46 environmental attributes important to fish were rated and loaded into the EDT model on a reach-by-reach basis. The model was then run under a range of fish passage alternatives, including dam removal, to estimate fall Chinook abundance productivity resulting from the implementation of each alternative. The model was also used to identify those environmental attributes and assumptions that were having the greatest effect on study results.

Centralia Mine Sensitive Species Assessments, TransAlta Centralia Mining, LLC, Lewis and Thurston Counties, Washington

Project Director. TransAlta Centralia Mining is preparing a permit renewal application for submittal to the U.S. Office of Surface Mines (OSM) to renew coal-mining leases at Centralia Mine in western Washington. OSM requires the 14,450-acre mine, in operation since 1969, to renew its operating permit at a maximum of 5-year intervals through the life-of-mine permit (2025). Mr. Summers supervised the preparation of a BA (federal) and a biological report (state) to determine whether renewal of mining operations is likely to affect any federal or state proposed, threatened, endangered, or sensitive species, as well as federally proposed or designated critical habitat. The BA addressed coastal cutthroat trout, bull trout, coho salmon, Olympic

mudminnow, Bald Eagle, Oregon spotted frog, mardon skipper, white-topped aster and small-flowered trillium.

Rivergate Industrial District Mitigation Sites Monitoring, Port of Portland, Portland, Oregon

Project Director. Mr. Summers supervised Year 1 through Year 5 monitoring of two of the Port's mitigation sites in the Rivergate Industrial District as required by the terms and conditions of their Rivergate Consent Decree with the Corps, their DSL permit, and their permit with the City of Portland Bureau of Development Services. He assisted in the development of the vegetation sampling protocols and monitoring procedures utilized for the Ramsey Lake Enhancement Area/Visual Buffer and the 40-Mile Loop Trail Mitigation Site/Levee Repair Area sites. Managed the field crew in year one and supervised the following years. Assisted in the data analysis, and provided quality assurance/quality control for the monitoring reports.

Forty-Mile Loop Trail Permit Application, Port of Portland, Oregon

Project Manager. Mr. Summers worked closely with Port personnel to prepare a Joint Section 404/Removal-Fill Permit application for the proposed 40-Mile Loop Trail Project along the Columbia Slough in the Rivergate Industrial District. Coordinated with the Port's engineering department, other consultants, and the City of Portland Bureau of Environmental Services to obtain information on the proposed trail impacts and restoration efforts. Assisted in preparation of the proposed mitigation plan and permit application figures. Prepared permit application for submission to DSL and responded to agency comments.

Rivergate Consent Decree Permit Application, Port of Portland, Portland, Oregon

Project Manager. Mr. Summers prepared a joint removal-fill permit application for submission to DSL for the restoration and fill removal actions required under the Rivergate consent decree.

North Simmons Road Wetland Delineation and Permit Application, Port of Portland, Portland, Oregon

Project Manager. Mr. Summers performed a wetland delineation and prepared the associated report for the North Simmons Road property in the Rivergate industrial district. Met with Port property personnel, the prospective tenant, and agencies to discuss project details and proposed impacts, and prepared a joint removal-fill permit application for submission to DSL and Corps.

Natural Resources Analyses of a Proposed Aggregate Site Adjacent to the Willamette River, Eugene Sand and Gravel, Eugene, Oregon

Environmental Scientist. Comprehensive natural resources assessment and permitting for proposed 450-acre aggregate mining site. Provided documents and testimony for County Land-Use (State Goal 5) process; developed wetland permit package, including alternatives analysis and mitigation design; and prepared NEPA documentation, including BA for bald eagle and fish species. Coordinated with eight regulatory agencies and local public interests.

ODOT Project, Grant County, Oregon

Botanist. Performed PETS study for proposed realignment of Highway 26. Prepared report concerning consequences of all alterations on PETS.

Coastal Timber Harvest Project, Linn County, Oregon

Botanist. Performed PETS study for proposed clearing of logging roads. Prepared report detailing findings and consequences of proposed clearing of logging roads on PETS.

Highway 26 – Austin Junction, ODOT, Austin Junction, Oregon

Environmental Scientist. Assessed impacts to wetlands and proposed, endangered, threatened, and sensitive (PETS) plant species for proposed realignment of Highway 26. Also prepared associated sections of EA detailing wetland and PETS impacts and possible mitigation measures.

Department of Energy, Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Environmental Scientist. Assessed impacts to wetlands and PETS plant species for proposed realignment of Highway 26. Also prepared associated sections of EA detailing wetland and PETS impacts and possible mitigation measures.

Mining Mine-wide JARPA Permitting and Mitigation Planning, TransAlta Centralia Mining, LLC, Washington

Project Manager. Mr. Summers oversaw the preparation of mitigation plans for various mining related projects requiring JARPA. Work included assessing direct and indirect wetland impacts and meeting with agencies to develop the appropriate wetland and stream mitigation plans. Mitigation plans included a biological and engineering report to describe the mitigation approach. Mr. Summers managed staff to prepare support JARPA documents such as BAs and Section 106 reports for submittal to permit agencies. He conducted meetings with agencies to discuss mitigation options and obtain JARPA related permits.

Big Hanaford Creek Construction Plans, Observation, and Monitoring, TransAlta Centralia Mining, LLC, Washington

Project Director. Mr. Summers supervised the development and preparation of construction bid documents for a 150-acre wetland and stream restoration project and assisted project owner in the bid selection process. Prepared a construction observation and monitoring plan to provide on-site review of the excavation of a new stream channel, construction of large woody debris stream structures, and installation of over 300,000 native trees, shrubs, and emergent plants. Prepared daily field observation forms with observations made and recommendations to the project owner.

McClelland Lake Wetland Complex Functional Assessment Approach, Petro-Canada Oil Sands, Inc. (Suncor Energy Ltd.), Fort McMurray, Alberta, Canada

Project Manager. Mr. Summers managed the development of a wetland functional assessment methodology for the McClelland Lake Wetland Complex, an 18-square-kilometer, highly diverse wetland system proposed for oil-sands mining. He met regularly with a multi-stakeholder committee composed of representatives from the industry, provincial regulatory agencies, and Aboriginal communities to develop a consensus on the definition of key project terms and identify the wetland functions occurring in the system and the indicators that could be used to assess them. He reviewed existing scientific studies on wetland functional assessment, boreal peatland ecology, and the effects of oil-sands mining on wetlands. Compiled information provided by multiple technical experts contributed to a comprehensive functional assessment report.

Wetland Policy White Paper, Shell Canada, Inc., Alberta, Canada

Project Director for developing a white paper on the status of the science and policy regarding wetland regulations in Canada. The paper focused on the comparison of Alberta and Canada wetland regulations with Washington State and the United States regulations.

Buckskin Mine Hay Creek II Amendment Area Wetland Delineation, Buckskin Mining Company-Kiewit Mining Properties, Inc., Gillette, Wyoming

Project Director. Mr. Summers oversaw the methodology for delineating potential wetlands and other waters of the U.S. within the 1,009-acre Hay Creek II Amendment Area at the Buckskin Mine, the northernmost surface coalmine in Wyoming's Powder River Basin. He supervised the Collection of field data on the existing wetlands and other waters of the amendment area, and mapping of their boundaries. Reviewed and quality checked a detailed wetland delineation report submitted to the Wyoming Regulatory Office of the U.S. Army Corps of Engineers for review and concurrence.

Baseline Assessment Surveys for Pacific Connector Gas Pipeline, Williams-Northwest Pipeline Corp, Edge Environmental, Coos Bay/Malin, Oregon

Project director. Oversaw baseline data collection for this proposed 223-mile-long pipeline project between Coos Bay and Malin. Oversaw the survey of a 400-foot-wide study area to delineate wetlands and streams; collect data on wetland vegetation, soils, and hydrology; and record stream characteristics and data for wetland functional analysis. Prepared survey maps, data spreadsheet compilation, HGM functional analysis reports, and the wetland/waters delineation report.

Buckskin Mine Permit Area Delineation and Nationwide Permit 21 Renewal Application, Buckskin Mining Company-Kiewit Mining Properties, Inc., Gillette, Wyoming

Project Director. Supervised the delineation of potential wetlands and other waters of the U.S. within the existing 8,011-acre WDEQ-LQD permit area of the Buckskin surface coalmine as part

of the mine's renewal application to the Corps for coverage under Nationwide Permit 21. The project involved reviewing previous delineations, Section 404 Permits, mitigation plans, and monitoring reports to compile a comprehensive history of the wetland permitting and mitigation performed on the site to date. Supervised the collection of field data on the existing wetlands and other waters of the permit area and mapped their boundaries and the preparation of a detailed wetland delineation report submitted to the Wyoming Regulatory Office of the U.S. Army Corps of Engineers for review and concurrence. Oversaw the preparation of a Corps' Pre-Construction Notification to renew the mine's coverage under the Corps' Nationwide Permit 21 for proposed future coal extraction operations in the permit area.

Pond 3B Natural Resources Assessment, TransAlta Centralia Mining, LLC, Lewis County, Washington

Project Manager. Oversaw the evaluation of natural resource value of wetlands associated with Pond 3B, a 115-acre coal fines refuse pond on the Centralia Coal Mine property where a functional wetland community has developed across much of the shallow water portions. Prepared the documentation of wetland, aquatic, and wildlife resources and evaluated overall functional value of developing wetland. We noted opportunities where active management could be employed to enhance similarly created wetlands and improve habitat conditions for fish and wildlife.

Pit 20 Wetland Mitigation Plan and Planting Plan, TransAlta Centralia Mining, LLC, Lewis County, Washington

Project Manager. Evaluated the feasibility of creating viable wetland habitat at the Pit 20 site, an old coal mine pit undergoing reclamation. Historic wetland conditions were reviewed, on-site conditions were assessed, bathymetry of the Pit was examined, and water quality was reviewed for potential contaminants. A detailed wetland mitigation plan was prepared that outlined landscape conditions, grading, hydrology, target wetland/riparian habitats, seeding and planting plans, special habitat features to benefit fish and wildlife, and wetland functions to be achieved. The plan was used by TCM to seek a land use change from the Office of Surface Mining.

Edgewater Properties Consolidated Wetland Delineation, Matrix Development Corporation, Tualatin, Oregon

Project Manager. Mr. Summers prepared a wetland delineation report that combined the results of four previously performed wetland delineations into a single report for a proposed multi-parcel residential development. Prepared a natural resource assessment report for this site for submission to Clean Water Services and a joint removal-fill permit application package for the proposed project.

Arbor Lakes Residential Development, West Hills Development, Washington County, Oregon

Project Manager. Mr. Summers oversaw the wetland delineation, natural resource assessment, and permitting services for a 111-acre multi-phase, multi-year residential development project.

Supervised the Delineation of potential wetlands and other waters of the U.S., assessed their functions and values, planned compensatory wetland mitigation, and prepared Joint Section 404/Removal-Fill Permit applications for proposed project impacts. Also oversaw the preparation of a Clean Water Services natural resource assessment to establish and mitigate the loss of protective buffers around wetlands and other water quality-sensitive areas.

Georgia Pacific Wauna Mill Stormwater Ditch Remediation Project, Bridgewater Group, Inc., Clatsop County, Oregon

Project Manager. Oversaw the preparation of a wetland determination/delineation and preparation of a Joint Section 404/Removal Fill Permit application to pipe and fill an existing stormwater ditch at Georgia Pacific's Wauna paper mill in Wauna, Clatsop County, Oregon. The project was part of an ongoing environmental remediation project at the former Koppers Wood-Treating Site pursuant to a Voluntary Remediation Agreement with the Oregon Department of Environmental Quality.

Portland Development Commission Eastbank Pedestrian Walkway, Oregon

Wetland scientist. Assisted in completion of biological documentation of effects of walkway project on threatened Lower Columbia River steelhead trout in Portland Harbor area of Willamette River. Reviewed design plans and coordinated with engineering consultants and agencies to gain approval for project without need to conduct formal consultation under Endangered Species Act (ESA).

Randall Wetland Mitigation Site Monitoring, Port of Portland, Hillsboro, Oregon

Project Director. Oversaw the Year 2 through Year 7 monitoring of the Port's Randall Mitigation Site as required by the terms and conditions of their Corps and DSL permits. Supervised the development of the vegetative sampling protocols and management of the field crew.

Arbor Heights/Arbor Crossing Residential Developments, West Hills Development, Washington County, Oregon

Project Director. Mr. Summers supervised the wetland delineations for two properties proposed for residential development in Washington County, Oregon. Oversaw the preparation of separate wetland delineation reports, wetland functional assessments, and Joint Section 404/Removal-Fill Permit applications for each project, and the development of a combined compensatory wetland mitigation plan.

Oak Creek Industrial Park, Douglas County Department of Public Works, Roseburg, Oregon

Project Director. Mr. Summers oversaw the performance of multiple wetland planning services including a Wetland Delineation, Wetland Functional Assessment, Conceptual Site Plan, Purpose & Need/Alternatives Analysis, and Conceptual Mitigation Plan for the proposed 23-acre Oak Creek Industrial Park near Roseburg, Douglas County, Oregon via the "Project Ready Industrial Sites Initiative." The OCIP received industrial certification from OECDD on July 15, 2005.

Sutherlin Industrial Park, Douglas County Department of Public Works, Sutherlin, Oregon

Project Manager. Mr. Summers performed a wetland delineation and Oregon-hydrogeomorphic functional assessment for a 51-acre property proposed for commercial/light industrial development. Delineated herbaceous and vernal pool wetlands and prepared the associated report for submission to DSL. Conducted a functional assessment for both the wetland proposed for impact and the proposed mitigation site. Prepared conceptual plans for future site development and a conceptual compensatory wetland mitigation plan and the Section 404(b)(1) alternatives analysis for potential impacts to wetlands and other waters of the state. Work was associated with the OECDD's "Project Ready Industrial Sites Initiative."

Portland International Airport SW Quad Safety Fill Project, Port of Portland, Multnomah County, Oregon

Project Manager. The purpose of this project was to remove from the SW Quad those habitat elements (i.e., wetlands, open water, trees) that were serving as attractants to wildlife species determined to pose a wildlife strike hazard to aircraft operations, in compliance with Federal Aviation Administration regulatory mandates. Specifically, the project involved converting a stormwater conveyance canal to an underground piped structure, filling adjacent wetlands and remnant drainage ditches, removing associated riparian forest patches, and modifying some existing grassland areas. As part of the project, Greg prepared a natural resource assessment for riparian habitat, described and mapped wildlife habitats, numerically assessed wildlife value using the Wildlife Habitat Assessment rating system, directed a City of Portland environmental review, and prepared a Biological Assessment addressing impacts to proposed, threatened, or endangered species associated with filling 3.94 acres of wetlands and other waters. Greg also prepared a Joint Section 404/Removal-Fill Permit application package to fill the approximately 3.94 acres of wetland and other waters, and developed a mitigation plan for impacts to wetland and other waters.

Local Wetland Inventory, City of Port Orford, Oregon

Project Manager. Conducted a local wetland inventory of all wetlands (0.5 acres or larger) in the 2,570-acre City's urban growth boundary. Tasks included wetland mapping, collecting field data, coordination with agency and city staff, and assistance with community involvement.

Clackamas County Shooting Range Expansion, Clackamas County, Oregon

Mr. Summers oversaw the wetland delineation and buffer evaluation for the expansion of the Clackamas County Shooting Range. A wetland delineation and an assessment of the adjacent buffers was completed. The expansion encroached into buffers regulated by Water Environment Services so a buffer mitigation plan was developed to compensate for the impacts.

Sunnybrook Wetland Delineation and Permitting and Mitigation Planning, ODOT, Clackamas County, Oregon

Greg conducted the wetland delineation, 404 permitting, and conceptual mitigation design for the proposed Sunnybrook interchange improvement and I-205 widening. Greg delineated the wetlands and compiled the results as an appendix to the permit application submitted to DSL and COE. As part of the permit application, we conceptual wetland mitigation plan was designed that including enhancing and creating approximately 6 acres of wetlands. Additionally, Greg prepared the plans for the removal of a 150 foot long culvert on a tributary of Mt. Scott Creek and the channel restoration design.

Little Deschutes River Biological Evaluation, ODOT, Klamath County, Oregon

Wetland scientist. Prepared wetland and biological assessment for proposed bridge reconstruction project. Prepared U.S. Forest Service BE addressing impacts of bridge construction on any wetlands and PETS species.

Tri-Property Wetland Delineation, LDC Design Group, Inc., Aloha, Oregon

Project Manager. Mr. Summers performed the wetland delineation fieldwork and prepared a project report for a 33-acre property proposed for residential development. Used both routine and atypical situation methodologies to delineate wetlands within the property boundary. Worked with client and agencies to resolve a disputed boundary.

Boeckman Road Wetland Delineation, LCD Design Group, Inc., and West Hills Development, Wilsonville, Oregon

Project Manager. Mr. Summers performed wetland delineation and prepared delineation report for a 24.2-acre property proposed for residential development. Worked with the DSL to determine the jurisdictional status of several artificially created wetlands/waters.

Highway 58 – Willamette Highway BAs, BEs, and Wetland Analyses, ODOT, Oak Ridge, Oregon

Environmental Scientist. Prepared two BEs, three BAs, and two wetland reports. BEs addressed 25 species of threatened, endangered, and sensitive fish, amphibians, reptiles, mammals, birds, invertebrates, and plants. BAs were prepared to evaluate potential impacts to northern spotted owl and American peregrine falcon.

Flexible Services Contract, ODOT, Oregon

Project Manager. Managed the flexible services contract that has provided Oregon Department of Transportation (ODOT) with wetland services since 1989. Support of contract included wetland delineations, functions and values assessments, impact assessments, mitigation planning, permitting, and mitigation design.

Cascadian Nursery, Claremont Properties, Oregon

Project Manager for a proposed residential development. Project included preparation of a joint DSL/COE Section 404 removal/fill permit, Clean Water Services natural resource assessment, and Washington County significant natural resources inventory report. Delineation of wetlands and natural resources on site was used to determine potential impacts and obtain all permits for the project.

Saltzman Heights, Venture Homes, Oregon

Project Manager for a proposed residential development. Project included preparation of a joint DSL/COE Section 404 removal/fill permit, Clean Water Services natural resource assessment, and Washington County significant natural resources inventory report. Delineation of wetlands and natural resources on site was used to determine potential impacts and obtain all permits for the project.

Mitchell Creek Project, Centurion Homes, Portland, Oregon

Project Manager. Assessed streams, wildlife habitat, and wetlands on a 70-acre parcel to negotiate placement of environmental protection (EP) zones in relation to those resources according City of Portland's Chapter 33.340. Streams, wildlife habitat features, and wetlands were tied in to a cadastral survey to determine exact location and placement of respective EP zones. Information was used to create development plan for property that incorporates innovative mitigation measures proposed for protection of streams and watershed resources.

Claremont Hills, Marshall-Grimberg Group, Beaverton, Oregon

Project Manager. Delineated wetlands on 90-acre parcel of agricultural land within urban growth boundary of Beaverton, Oregon. Delineation was complicated by extensive hydrologic manipulation of land for agriculture. Completed permit application package for development on area.

Headquarters Solid Waste Disposal Facility, Weyerhaeuser Company, Cowlitz County, Washington

Wetland Scientist. Performed wetland, fisheries, wildlife, botanical, and surface water technical studies for planning, design, and construction of a 400-acre wood waste landfill site. Project included filling 12 acres of wetlands in headwaters of Cowlitz River drainage. Wetland delineation, mitigation plan preparation, and 404 permit preparation were required. An extensive alternatives analysis was required to clearly demonstrate that an upland alternative was not practicable. The final mitigation package was more than 150 acres, which is one of region's largest aquatic and terrestrial habitat mitigation, creation, and monitoring programs.

North Albany Project, ODOT, Albany, Oregon

Project Manager. Performed wetland delineation, functions and values assessment, and impact assessment for proposed upgrade of I-5 north of Albany, Oregon. Worked with ODOT project managers to select mitigation site and designed mitigation plan using all available area.

Mitigation beyond what is required for project will be developed into mitigation bank for future ODOT projects.

Warner Highway Project, Federal Highway Administration, Lakeview, Oregon

Project Manager. Performed wetland delineation, functions and values assessment, and impact assessment for proposed highway realignment. Compared two possible routes to determine impacts to ecological resources and to identify preferred alternative route. Prepared report detailing findings and possible mitigation measures.

Cowlitz Falls Hydroelectric Project, Washington Public Utility District, Morton, Washington

Wetland Scientist. Assisted in implementation of habitat enhancement measures as mitigation for construction of 70-megawatt hydroelectric project on Cowlitz River. Shoreline restoration was completed before reservoir was filled, which determined post-construction pool depth. Supervised planting of more than 9,000 plants as part of shoreline restoration for proposed reservoir. Prepared and managed implementation of fish and wildlife mitigation. Prescribed mitigation measures focused on big game, Bald Eagles, Ruffed Grouse, forest management, wetlands, shoreline/riparian management, and fishery enhancement. Conducted or managed on-ground work including forest management to benefit wildlife, meadow creation, development of diked reservoir subimpoundments, island creation and planting, reclamation and management of reservoir and riverine riparian habitat, forest reclamation, tributary stream habitat improvements, Bald Eagle management, and enhancement of transmission line corridor.

Chenoweth Wetland Mitigation Project, ODOT, The Dalles, Oregon

Project Manager. Designed wetland as mitigation for impacts associated with construction of proposed interchange. Prepared technical report detailing wetland design, planting plan, and contingency measures.

Olalla Creek Wetland Mitigation Project, ODOT, Winston, Oregon

Project Manager. Delineated wetlands for proposed highway realignment project and prepared report detailing wetland impacts, possible mitigation measures, and proposed planting plan for project. Also designed wetland to mitigate for impacts and prepared report detailing wetland design and planting plans.

Wren Hill Wetland Mitigation, ODOT, Wren, Oregon

Project Manager. Designed wetland as mitigation for impacts to wetlands from proposed construction of highway. Prepared report detailing wetland design, planting plan, and construction phases and concerns.

Highway 26 – Austin Junction Project, ODOT, Austin Junction, Oregon

Project Manager. Performed wetland delineations for proposed realignment of Highway 26. Also prepared report detailing wetland impacts and possible mitigation measures.

Hillsboro Landfill Expansion Project, Emcon Northwest, Inc., Hillsboro, Oregon

Wetland Scientist. Completed wetland delineation; threatened, endangered and, sensitive (TES) plant survey; and habitat evaluation for proposed landfill expansion. Prepared report addressing effects of proposed expansion on wetlands, TES plants, and habitat of project area. Assisted in design of 60-acre wetland system to mitigate for wetland impacts, devised planting plan for constructed wetland, and prepared report detailing these plans.

Fuisz Technologies, Ltd. Technical Center Campus, Sterling, Virginia

Project Manager. Performed wetland delineation for proposed construction of manufacturing plant in Loudon County, Virginia.

Functions and Values Analysis for Wetlands South of Solid Waste Management Units 2 and 3 of WAG 22, Department of Energy, Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Project Manager. Performed functions and values analysis of wetland to assist in choosing remedial actions for SWMUs 2 and 3 of WAG 22. Functions and values of wetland were evaluated using U.S. Army Corps of Engineers' WET 2.0 program.

Roseburg Project, Seal Rock, Oregon

Botanist. Performed plant survey for possible Siuslaw National Forest PETS species for proposed timber harvest. Also prepared portions of report detailing findings and consequences of proposed clearing for logging roads on PETS plant species.

Emcon Northwest, Inc. Project, Medford, Oregon

Botanist. Performed PETS study and habitat evaluation for proposed landfill expansion. Prepared report concerning effects of proposed expansion on PETS and habitat of project area.

Mid-Willamette Valley Council of Governments Project, Salem, Oregon

Botanist. Performed habitat evaluation, wetland assessment, and PETS species study for proposed arboretum. Prepared report concerning effects of proposed expansion on wetlands, PETS, and habitat of project area.

Coyote Springs NEPA EIS, Bonneville Power Administration and Pacific Gas and Electric Company, Morrow County, Oregon

Botanist and Wetland Scientist. Performed baseline surveys in support of the NEPA EIS being prepared for the proposed 500kV transmission line and cogeneration facility construction. Reports were prepared to document findings of the studies and evaluate potential impacts of the proposed construction.

Owens Corning Remedial Investigation, Jackson, Tennessee

Ecological Risk Assessor. Conducted ecological risk assessment, habitat assessment, threatened and endangered species survey, and wetland vegetation survey. Conducted ecological risk

assessment following EPA Risk Assessment Guidance for Superfund, Vol. II Environmental Evaluation Manual, for piscivorous wildlife and threatened and endangered species. Determined broad-scale impacts to vegetation from possible offsite migration of contaminants by statistical comparisons of site areas to control areas. Assessed possible impacts to threatened and endangered species. Methods and results were detailed in portions of remedial investigation report.

NEPA/SEPA Projects

Chehalis River Strategy: Reducing Flood Damage and Enhancing Aquatic Species SEPA Programmatic EIS and Analysis, Washington State Office of Financial Management, Lewis, Thurston, and Grays Harbor Counties, Washington

Mr. Summers is managing several aspects of the comprehensive strategy to reduce flood damages while enhancing aquatic species habitat in the 2,400-square-mile Chehalis River Basin. The work includes developing a State Environmental Policy Act (SEPA) programmatic EIS, evaluating restoration priorities for aquatic species, assessing potential impacts to aquatic species and their habitats including adjacent wetland and riparian habitats, habitat mapping, extensive fisheries studies, hydrologic and hydraulic studies of existing flooding and potential flooding if a flood retention structure is used, fish passage and dam design, an extensive water quality monitoring program, geomorphology and sediment transport analyses,. He also leads coordination with a number of technical committees comprising state agency staff, tribal members and representatives, along with various other stakeholders that are reviewing the analyses.

Columbia Gateway NEPA/SEPA EIS and permitting Services, Port of Vancouver, Vancouver, WA

Project Director. As third party contractor project director, Greg oversaw a team of environmental scientists, economic development specialists, and marine and rail engineers in: preparing a NEPA/SEPA EIS; ESA compliance; NHPA Section 106 compliance; CWA Section 404 and 401 compliance; WA state JARPA preparation; and preparation of all local permits. The lead federal agency was the USACE and the USFWS and NMFS were cooperating agencies. The Columbia Gateway Project is located in the Vancouver Lowlands area on the opposite side of a closed aluminum plant from existing POV facilities. The project consisted of mixed-use industrial development, bulk facility, two marine terminals, and road and rail infrastructure support. The NEPA process was completed to the EIS administrative draft stage. Scoping was completed and all environmental work in support of permitting (e.g., wetlands, fisheries, ESA, cultural resources) was completed when the abandoned aluminum plant property became available. As the aluminum plant property is immediately adjacent to existing POV facilities, a Brownfield's development, and was considered a better option for development by the public and agencies, the POV purchased this property to develop prior to Gateway. Greg oversaw the completion of the administrative draft EIS, re-scoped the project including permits, and then provided NEPA/SEPA,

permitting, and environmental support for the new project (See West Vancouver Freight Access Project).

TransAlta Centralia, Strategic Environmental Regulatory Support, Including NEPA/SEPA EIS Services - Centralia, WA

Greg oversaw the master services agreement his firm held with the TransAlta Centralia Mine (TCM) from 1997 to 2013. TCM was an active coal mine that has transformed from mining coal on-site and converting it to electricity using its on-site generating facility to closing its mining operations and improving on-site rail facilities to bring in 100 percent of their coal from the Powder River Basin to generate electricity. Greg led the environmental regulatory support for that transformation, including permitting the last mining effort, initiating mine expansion efforts, and assisting with converting to 100 percent off-site coal burning.

As project manager for the Westfield EIS, Greg was responsible for NEPA/SEPA compliance, alternatives analysis (both NEPA and 404), cumulative impact assessment, 404 permitting, and coal issues (e.g., dust, air). He was the liaison for the Corps, Ecology, and Lewis County and helped develop the strategy for scoping and level of analysis necessary for preparing a complete and legally defensible EIS. He also oversaw the wetland delineation and assisted with the 404 mitigation design and implementation, Section 106 compliance, ESA compliance, and overall permitting strategy. During the EIS scoping process, the level of opposition to the mine expansion and burning of coal in Washington state, along with the large amount of mitigation that would be required, led TCM to make the decision to close the mine and haul in coal from the Powder River. As such, the project was changed from an EIS covering a mine expansion to an EA covering a rail upgrade (new rail lines for train storage and a rail loop) and coal offloading facility (rail dumper, receiving station, conveyors).

Greg led the strategy for shifting from an EIS to an EA and then managed the regulatory compliance effort for the rail and coal offloading facility upgrade needed for the project. He worked with the agencies to determine the scope of analysis, number of alternatives, and mitigation strategy for the project.

Greg also oversaw the development of a 125-acre wetland and stream mitigation project to compensate for over 20 acres of wetland impact; preparation of a cumulative impact analysis that the Corps considered the best completed in the State to date. Greg drafted a NEPA EA for the Corps' internal processing. Analysis included the impact of increased coal delivery to the plant from the Powder River Basin and the potential effect of coal storage on nearby wetlands. He also continued to work with the Corps and Ecology in assessing wetland impacts and developing a mitigation plan to compensate for wetland impacts. Documents prepared for the Corps and Ecology were adopted by the local county for SEPA compliance.

Portland International Center (PIC) Commercial Development/Cascade Station Project NEPA EA and Permitting Assistance, Port of Portland, Oregon

Mr. Summers was project manager, leading the preparation of the NEPA EA and Discipline Reports (including air, noise, wetland, cultural, transportation, and biological) for the Portland

International Center (PIC) Commercial Development/Cascade Station project. The PIC is a 458-acre, master-planned, mixed-use Plan District located on the west side of Portland International Airport. The PIC has been planned for office, retail, hotel, and a variety of light industrial and employment uses (including aviation-related uses) subject to an agreement between the Federal Aviation Administration (FAA) and the Port of Portland. Two primary environmental-related processes were completed before the proposed PIC development could occur: compliance with NEPA and completion of the City of Portland's rezoning to enable proposed revision to the plan. The analysis for the EA focused on changes in transportation due to the change in use of the PIC. In addition to transportation, all aspects required by NEPA were evaluated, and the resulting Finding of No Significant Impact was issued by the FAA.

EIS for Tongue River Railroad, Surface Transportation Board, Montana

Mr. Summers served as a wetland scientist and assisted as the Surface Transportation Board's (STB) preferred third-party contractor and prepared an Environmental Impact Statement (EIS) for the proposed construction of a rail line to haul coal from a proposed coal mine in the Otter Creek Area to existing Burlington Northern Santa Fe (BNSF) rail lines. He was responsible for developing the methodology of the wetland field studies and alternative alignment selection in the initial stages of the project. He evaluated the proposed alignments, with regard to wetland and stream impacts, and assisted in the selection of the preferred alternative to carry forward, based on potential impacts to wetlands, waters of the United States, and other natural resources.

West Vancouver Freight Access Project, Port of Vancouver, Washington

As project director, Mr. Summers oversaw the strategic shift in direction from the Columbia Gateway Terminal NEPA/SEPA EIS to the NEPA categorically excluded SEPA-compliant West Vancouver Freight Access Project for the Port of Vancouver. This change was made when the property adjacent to existing Port facilities, the decommissioned Alcoa Aluminum Plant, became available for purchase and subsequent brownfield development. He oversaw the change in federal lead agency from the USACE to the Federal Highway Administration (FHWA), including ensuring all agencies had what they needed for the NEPA regulatory process and ensuring the project manager and team were prepared to keep the project moving forward with the switch in direction. He then oversaw the NEPA/SEPA strategy, and assisted with the Section 106 and 4(f) consultations.

Crown Jewel Gold Mine, Tonasket, Washington

Environmental Scientist. Mr. Summers was responsible for mapping forest stands and collecting biological data for a proposed gold mine in Northern Washington State. The maps were uploaded into a GIS layer to determine potential impacts and the data were input to the U.S. Fish and Wildlife Service (USFWS) habitat evaluation procedures (HEP) model. Results from HEP model were used to evaluate impacts of proposed mine construction and were incorporated into EIS being prepared for the US Forest Service. Mr. Summers wrote several technical portions of the EIS and reviewed other sections of the EIS.

EIS for the ARRC Port MacKenzie Rail Extension Project, Alaska

Strategic Advisor. Greg assisted the project manager with NEPA strategy and 404 permitting strategy at his former firm who was the Surface Transportation Board's (STB's) independent third-party contractor for an EIS for the construction and operation of ARRC's Port MacKenzie Rail Project, which would connect the Matanuska-Susitna Borough's Port Mackenzie to ARRC's main line. Major elements of the project would include between 30 and 45 miles of new railroad track; a 200-foot-wide right-of-way; crossings of local roads, streams, trails, and utility corridors; sidings; and ancillary facilities. His former firm and its team assisted the STB's Section of Environmental Analysis on all aspects of the EIS process, including identifying a range of reasonable alternatives; supporting public involvement efforts for the contentious project; consulting with state, local, and federal agencies and Native Alaska groups; preparing EIS sections for technical resource areas such as land use, cultural resources, subsistence, biology, hydrology, proposed action and alternatives, recreation, noise, and air quality.

EIS for Hay Creek II Coal Lease by Application, Buckskin Mine, Campbell County, Wyoming

Project Director for the Bureau of Land Management's (BLM) preferred Third Party contractor for an EIS addressing a proposal for a competitive lease sale of a maintenance coal tract for a surface mine in Campbell County, Wyoming. The overall analysis area encompassed nearly 2,500 acres of private surface overlaying approximately 77.2 million tons of federal coal. The analysis area included various habitats of local and regional concern, such as sagebrush, riparian, and agricultural vegetation communities. In addition to overseeing the overall project, he also oversaw resource specialists providing evaluations and impact analyses for several key resources including: vertebrate T&E and sensitive species such as sage-grouse; paleontological resources; wetlands; noise; and visual impacts. All recent concerns related to leasing coal and its subsequent development were addressed, with special emphasis on loss of livestock grazing areas, conflicts with oil and gas development, cumulative impacts related to ongoing surface coal mining and other proposed development in the Wyoming Powder River Basin, greenhouse gas emissions, ozone, and global climate change

EIS for the Alaska Railroad Corporation (ARRC) Northern Rail Extension, North Pole, Alaska

Strategic Advisor. Greg assisted the project manager with NEPA strategy and 404 permitting strategy at his former firm who was the Surface Transportation Board's (STB's) independent third-party contractor for an EIS for the construction and operation of ARRC's Northern Rail Extension that would connect to ARRC's existing Eielson Branch near North Pole, AK and extend the rail system to Delta Junction, AK. Major elements of the project would include approximately 80 miles of new railroad track; a 200-foot-wide right-of-way; crossings of local roads, rivers, trails, and utility corridors; sidings; and ancillary facilities. The project included assisting the STB's Section of Environmental Analysis on all aspects of the EIS process, including identifying a range of reasonable alternatives; supporting public involvement efforts; coordinating with eight cooperating agencies; consulting with state, local, and federal agencies and Native

Alaska groups; preparing the Draft and Final EIS; supporting the Section 106 process and preparation/execution of a Programmatic Agreement; and supporting the Section 4(f) Assessment, for which the Federal Railroad Administration is the Lead Agency.

Elliott State Forest Habitat Conservation Plan EIA, Oregon Department of Forestry, Coos Bay, Oregon

Project Director for the preparation of the EIS on the revised Habitat Conservation Plan (HCP) for the Elliott State Forest in Coos Bay, Oregon. The EIS focused on potential impacts associated with the implementation of a revised forest management plan and HCP covering a 50-year period. Primary issues of concern in the EIS included impacts to avian and fish species (approximately 20 species are covered in the HCP/EIS) and potential socioeconomic impacts associated with changes in forest management strategies. The team had to work closely and coordinate with Oregon Department of Forestry, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Oregon Department of Fish and Wildlife to ensure timely completion of EIS, and for management of project schedule and budget.

Power Line Upgrade EA, Consumers Power, Inc., and Siuslaw National Forest, Benton, Lane, and Lincoln Counties, Oregon

Project Director for the upgrade of four power line segments that cross federal, state, municipal, and private lands in the central Oregon Coast Range. Oversaw and managed the project scoping, developed issues and alternatives, prepared a supporting BA and BE, conducted surveys for special-status plants and animals, and prepared the EA and decision notice. The EA assessed impacts on biological resources, special-status plants and animals, cultural resources, visual resources, recreation, and public services.

Western Snowy Plover Habitat Conservation Plan (HCP) and EIS, Oregon Parks and Recreation Department (OPRD), Oregon

Project Director. This project involves providing protections for federally listed western snowy plover in balance with OPRD's management activities and the public's recreational use along the length of the Oregon Coast. The team worked closely with OPRD to revise and refine the HCP with participation from the Fish and Wildlife Service (FWS), other key regulatory agencies and landowners, and the general public. He also helped to develop the draft EIS in coordination with FWS and OPRD, and worked closely with FWS to finalize the EIS and address public comments on the draft EIS.

Independent Internal Adequacy Review of an Environmental Impact Report for a Proposed Copper Mine, Nicolet Minerals Company, LLC, Wisconsin

Subject Matter Expert/Project Manager. This project entailed an adequacy review of an Environmental Impact Report (EIR) prepared by several firms for Nicolet Minerals Company, LLC (NMC). Mr. Summers was part of a team of reviewers that reviewed the entire EIR. He was responsible for reviewing the biological sections (wetlands, wildlife, plants, endangered species,

soils, land use, fisheries, etc.) and general project management. Results from the review were provided to NMC in oral and written format.

Categorical Exclusion, PDX Runway Improvements, Port of Portland, Oregon

Project Manager. Provided project oversight for the completion of a NEPA categorical exclusion checklist for runway improvements at the Portland International Airport.

Supplemental EIS, Milltown Hill Project, Douglas County, Oregon

Project Manager. Provided overall project management for completion of supplemental EIS for proposed construction of dam on tributary of Umpqua River in Douglas County, Oregon. A previous EIS was issued; however, Umpqua River cutthroat trout has since been listed as endangered species. A wetland delineation for a proposed 681-acre reservoir area and an 18.5-mile proposed pipeline distribution system was completed. Delineation within proposed reservoir area was completed using 1987 Corps and National Food Securities Act (NFSA) wetland delineation manuals concurrently. Pipeline route delineation followed 1987 Corps wetland delineation manual guidelines solely, because it is a linear project and not subject to NFSA. Mitigation guidelines were established in accordance with federal and state regulations. Mitigation site has been selected in upper reservoir area for creation of approximately 80 acres of mitigation wetlands.

Portland International Airport Wildlife Hazard Management Plan, BA, and NEPA Environmental Assessment, Port of Portland, Multnomah County, Oregon

Project Director. Mr. Summers oversaw his firm in assisting the Port of Portland in revising their Wildlife Hazard Management Plan (WHMP) for Portland International Airport (PDX), in compliance with the Federal Aviation Administration requirements and 14 CFR-Part 139.337. The WHMP presents an integrated and adaptive program to effectively manage risk at PDX by reducing the probability of occurrence of wildlife/aircraft collisions. The risk management techniques and protocols adopted in the WHMP include: 1) Wildlife control procedures to discourage, disperse and remove wildlife species of concern from the airfield vicinity; 2) Habitat modification practices to reduce the attractiveness of lands on and around the airport to wildlife species of concern; 3) Research and development projects to gather data and field-test new equipment and techniques; and 4) Information and education programs to articulate the hazards wildlife can pose to the safe operation of aircraft. Implementation of the WHMP is based upon management strategies developed to address the wildlife hazards unique to specific management areas identified at PDX. In support of the WHMP, Greg also oversaw the preparation of a BA evaluating plan impacts to proposed, threatened and endangered species, and the preparation of the wildlife sections of a NEPA EA that addresses the environmental impacts associated with implementing the management strategies developed in the plan.