**Sewall Wetland Consulting, Inc.**

PO Box 880
Fall City, WA 98024

Phone: 253-859-0515

February 10, 2020

Peter Kahn
Costco Wholesale
999 Lake Drive
Issaquah, Washington 98027

RE: Costco Wholesale Lake Stevens – *Revised* Avoidance, Impacts and Mitigation
Report
CW #17-0230, SWC Job #18-105

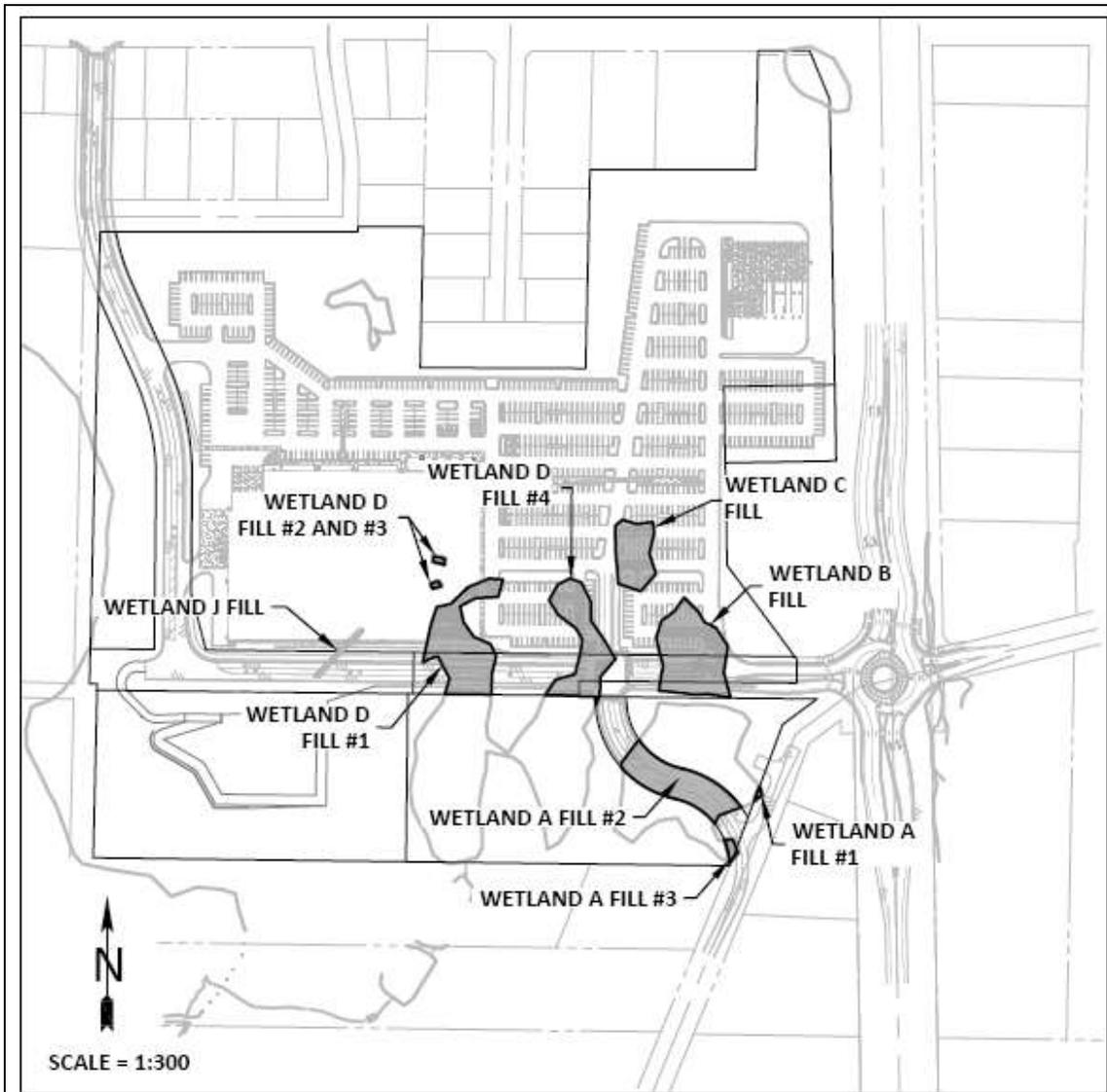
Dear Peter,

This report describes the wetland, stream and buffer impacts for the proposed Costco Warehouse project in the City of Lake Stevens Washington. The requirements for wetland and stream impacts within the City are detailed in Lake Stevens Municipal Code Chapter 14.44 Part VIII (Wetlands) and Part VII (Streams, Creeks, Rivers, Lakes and Other Surface Water).

Proposed Project and impacts

The proposed project includes the extension of 24th Street SE across the site and to the north, as well as the construction of a Costco Warehouse with associated parking areas, gas station and infrastructure. In addition, as part of the project, a total of six (6) off-site culverts within a tributary of Mosher Creek will be removed (3) and replaced (3) with fish passable culverts to improve fish habitat. The project as proposed will impact 1.72 acres of wetland as depicted on page 2 of this report.

In order to maintain a 95' buffer off the remaining wetlands, a "paper fill" was calculated for both the City required 95' Category II wetland buffer (1.41 acres), as well as the 220' WADOE Category II buffer (2.24 acres) as shown in the table on Page 3 of this report.



WETLAND ID	TOTAL WETLAND FILL	ROAD IMPACTS	STORE IMPACTS
WETLAND A #1	154 SF (0.004 ACRES)	154 SF (0.004 ACRES)	0 SF (0.00 ACRES)
WETLAND A #2	13,540 SF (0.31 ACRES)	13,540 SF (0.31 ACRES)	0 SF (0.00 ACRES)
WETLAND A #3	606 SF (0.14 ACRES)	606 SF (0.14 ACRES)	0 SF (0.00 ACRES)
WETLAND B	19,086 SF (0.44 ACRES)	9,284 SF (0.21 ACRES)	9,802 SF (0.22 ACRES)
WETLAND C	8,579 SF (0.20 ACRES)	0 SF (0.00 ACRES)	8,579 SF (0.20 ACRES)
WETLAND D #1	17,831 SF (0.40 ACRES)	7,796 SF (0.18 ACRES)	10,035 SF (0.23 ACRES)
WETLAND D #2	171 SF (0.004 ACRES)	0 SF (0.00 ACRES)	171 SF (0.004 ACRES)
WETLAND D #3	230 SF (0.005 ACRES)	0 SF (0.00 ACRES)	230 SF (0.005 ACRES)
WETLAND D #4	14,060 SF (0.32 ACRES)	6,189 SF (0.14 ACRES)	7,871 SF (0.18 ACRES)
WETLAND J	646 SF (0.02 ACRES)	333 SF (0.01 ACRES)	313 SF (0.01 ACRES)
	74,903 SF (1.72 ACRES)	37,902 SF (0.87 ACRES)	37,001 SF (0.85 ACRES)

WETLAND ID	LAKE STEVENS (95' BUFFER)	WA ECOLOGY (220' BUFFER)
WETLAND A	34,933 SF (0.80 ACRES)	39,797 SF (0.91 ACRES)
WETLAND D	26,329 SF (0.60 ACRES)	57,694 SF (1.32 ACRES)
	61,262 SF (1.41 ACRES)	97,491 SF (2.24 ACRES)

PAPER FILL SUMMARY
 FOR PERMITTING PURPOSES

Under Lake Stevens Municipal Code Chapter 14.88.010 the following criteria must be addressed for work in critical areas;

(a) A project proponent shall make all reasonable efforts to avoid and minimize impacts to critical areas and buffers in the following sequential order of preference:

(1) Avoiding impacts altogether by not taking a certain action or parts of an action; or

Response: Avoidance of the road portion of the project is not possible as the City’s long term transportation plan relies on construction of this road to meet traffic needs within this portion of the City. The road construction is also an allowed impact with appropriate mitigation as detailed in LSMC 14.88.220.j.

The construction of the Costco Warehouse requires a certain amount of land and configuration. The project would not be possible on this site without the proposed impacts. Numerous other sites have been reviewed as detailed in the attached Alternatives Analysis for the project. None of these were suitable for the proposed project either.

(2) When avoidance is not possible, minimizing impacts by limiting the degree or magnitude of the action and its implementation, using appropriate technology, or by taking affirmative steps, such as project redesign, relocations, or timing, to avoid or reduce impacts and mitigating for the affected functions and values of the critical area; and

Response: The site layout has been designed to avoid the most sensitive wetland and creek on the site (Wetland M & Mosher Creek). In addition, the site plan has been revised to avoid Wetland F through reconfiguration of the site layout. The layout of the parking areas and warehouse are the minimum needed to have the facility be fully

functional. There are no other ways to reduce the footprint and have a warehouse store that would work on the site.

(3) Reducing or eliminating impacts over time by preservation and maintenance operations during the life of the action.

Response: The project footprint has been reduced to the minimum size that a functional Costco warehouse can be. There are no other footprint reducing techniques that would further minimize impacts with the exception of not building the facility. If Costco were not to build the facility another large box store type applicant would apply for use of the property given the zoning of the property and impacts would no doubt be similar if not larger.

(4) Compensating for unavoidable impacts by replacing, enhancing or providing substitute resources or environments.

Response: As detailed below, off-site wetland mitigation bank credit purchase, will be utilized to mitigate for the proposed wetland fill and paper fill for buffer. These are the preferred methods of mitigation as dictated by both the US Army Corps of Engineers and WADOE.

However, Costco is proposing several off-site stream obstruction improvements as well as creation of 0.45 acres of Category II wetland along Wetland D to improve and maintain fish habitat for the small tributary of Mosher Creek. Costco is not taking any mitigation credit for these actions.

Mitigation Summary

The proposed mitigation for the proposed 1.72 acres of wetland impact as well as 2.24 acres of Wetland impact for conversion to wetland buffers will include three (3) separate mitigation measures as shown on the attached Sewall Wetland Consulting, Inc. “*Critical Areas Mitigation Plan Lake Stevens Costco*” dated 1-20-2020, and the Sewall Wetland Consulting, Inc. *Costco Bank Use Plan* dated 1-27-2020;

1. Purchase of 3.06 credits in the Snohomish Mitigation bank to mitigate for 1.72 acres of wetland impact as well as 2.24 acres of Wetland impact for conversion to wetland buffers (paper fill). This will mitigate all of the impacts from the proposed project.
2. Removal of three (3) fish barrier culverts off-site to a Mosher Creek Tributary, and the replacement of three (3) other culverts with fish passable culverts. The existing substandard culvert along the east side of SR 9 will also be replaced with

a box culvert which will be fish passable. Enhancement plantings along 20,396sf of off-site stream buffer in the vicinity of the culvert improvements.

3. Creation of 0.45 acres of wetland/fish habitat along Wetland D.

As detailed in Lake Stevens Municipal Code Chapter 14.88.840 “Mitigation”; *The mitigation sequence set forth in this section should be applied after impact avoidance and minimization measures have been taken.*

Avoidance and Minimization

Avoidance and minimization measures are explained in great detail in the attached “Alternatives Analysis” for the project. There is no place or alternative layout within the City of Lake Stevens or the region with less impact on wetlands than that proposed for this project.

As detailed below, once impact avoidance and minimization have taken place (*as detailed in the attached Alternatives Analysis*), the following mitigation sequence is to take place;

14.88.840 Mitigation.

The mitigation sequence set forth in this section should be applied after impact avoidance and minimization measures have been taken.

(a) *Location and Timing of Mitigation.*

(1) *Restoration, creation, or enhancement actions should be undertaken on or adjacent to the site, or, where restoration, creation, or enhancement of a former wetland is proposed, within the same watershed. In-kind replacement of the impacted wetland is preferred for creation, restoration, or enhancement actions. The City may accept or recommend restoration, creation, or enhancement which is off site and/or out-of-kind, if the applicant can demonstrate that on-site or in-kind restoration, creation, or enhancement is unfeasible due to constraints such as parcel size or wetland type, or that a wetland of a different type or location is justified based on regional needs or functions;*

Response: The fill of 1.72 acres of wetland on the site will remove all of the wetland north of the proposed 24th Street SE extension with the exceptions of wetlands F, G & M and their associated buffers which will be avoided. Portions of Wetlands A and D will remain intact south of 24th Street SE, as well as Wetland M along the western side of the site. Since a 95' buffer must be maintained off the proposed roads, a further impact of 1.41 acres of wetland from paper fill will occur. These increases to 2.24 acres of paper fill when the proposed 220' buffer requested by WADOE is placed upon these roads.

The areas available for mitigation in-kind and on-site are restricted to portions of Wetlands A, D and M. Wetland M and its buffer are relatively pristine and have a moderate slope along its eastern boundary making wetland creation along Wetland M not feasible. The area south of the proposed 24th Street SE extension is the only on-site areas feasible for mitigation (wetland creation). This is greatly reduced as a result of the required buffering of the proposed roads with a 95' buffer per City of Lake Stevens and 220' per WDOE. The federal and state permits (404 & 404) require mitigation be done off-site through credit purchase. In this area the Snohomish Mitigation Bank is an approved, and generally preferred mitigation method per the US Army Corps of Engineers and Department of Ecology. As a result, the use of the Snohomish Habitat Bank will be the primary source of mitigation and will cover all of the proposed impacts. Costco's voluntary wetland creation is not being included in its wetland mitigation credit calculations. As a result, for permitting purposes, all wetland impacts and paper fill impacts will be compensated for through bank credit purchase ignoring the actual wetland creation in Wetland D. The on and off-site mitigation proposed below is in addition to covering all impacts through Bank credit purchase.

Wetland D is a headwater to a small tributary to Mosher Creek. Maintaining the overall size, hydrologic inputs and connection to the tributary from this wetland is highly desirable. A total of 0.74 acres of Wetland D will be filled for the 24th Street extension as well as the Costco Warehouse. The proposed creation along Wetland D will add 0.45 acres of wetland between the lobes of the remaining Wetland D to maintain the overall size of the potential fish habitat within this headwater wetland. Wetland D is a Category II wetland and City Code requires a 3:1 ratio for Category II wetland impacts. However, the proposed impacts will be mitigated through the WADOE and USACOE approved

mitigation ratios within the Bank which for Category II wetlands is 1.2:1. These ratios were developed based upon function and area replacement.

Application of the standard 95' buffers off the new segment of SE Lake Stevens Road and the new 24th street result in paper fill of wetland of 1.41 acres of parts of Wetland A and D. Since we are required by WADOE to mitigate within 220' of these Category II wetlands, a total of 2.24 acres of paper fill will occur.

In addition to the primary bank credit purchase and the on-site creation area, restoration of the off-site Mosher Creek tributary will occur which will include removal and /or replacement of 6 fish barrier culverts to improve fish habitat in this tributary.

(2) Whether occurring on site or off site, the mitigation project shall occur near an adequate water supply with a hydrologic connection to the wetland to ensure a successful wetlands development or restoration;

Response: The proposed creation will be between two lobes of Wetland D outside the 95' paper fill buffer. Monitoring of shallow groundwater tables with piezometers in the areas of proposed creation will take place in the winter and spring of 2020 into the early growing season to confirm the depth to groundwater in these areas. Depending upon our findings, some modification to grades may be needed in the creation areas to ensure adequate soil saturation/inundation to create wetland with the desired water regimes.

(3) Any approved proposal shall be completed before initiation of other permitted activities, unless a phased or concurrent schedule has also been approved by the Planning and Community Development Department;

Response: The proposed grading and creation area work will commence during the grading of the project.

(4) Wetland acreage replacement ratios shall be as specified in Table 14.88-IV;

Response: The mitigation is being conducted at the approved ratios for the Snohomish habitat Bank. These ratios have been approved by both the Corps and WADOE and

appropriately replicate the lost functions from the fill. As allowed within Lake Stevens Code 14.88.276.6 (Alternative Mitigation):

(6) Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification; and

(5) Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands.

(i) This provision may be used when:

a. The bank is certified under Chapter [173-700](#) WAC;

Response: The Snohomish Basin Mitigation Bank is a certified mitigation bank per code.

b. The Planning and Community Development Director determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and

Response: It is our understanding the City has determined that the Snohomish Basin Mitigation Bank is providing adequate compensation per the City, US Army Corps of Engineers and WADOE.

c. The proposed use of credits is consistent with the terms and conditions of the bank's certification.

Response: The proposed credit purchase and calculations are consistent with the bank's certification.

(ii) Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.

Response: Replacement ratios for the proposed wetland impacts are consistent with the replacement ratios in the bank's certification.

(iii) Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the

bank's certification. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

Response: The site is in the approved service area for the bank.

Maintenance and Monitoring

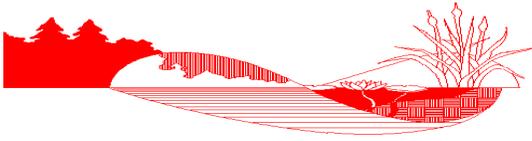
The proposed wetland creation and culvert removal and replacement work will be monitored for 5 years as required by Code. The details of this work are depicted on Sewall Wetland Consulting, Inc. "Critical Areas Mitigation Plan Lake Stevens Costco" dated 9-1-19 and revised to 1-20-2020.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetlands Ecologist PWS #212



April 6, 2020

Peter Kahn
Costco Wholesale
999 Lake Drive
Issaquah, Washington 98027

RE: Costco Wholesale Lake Stevens – *Revised* Avoidance, Impacts and Mitigation
Report
CW #17-0230, SWC Job #18-105

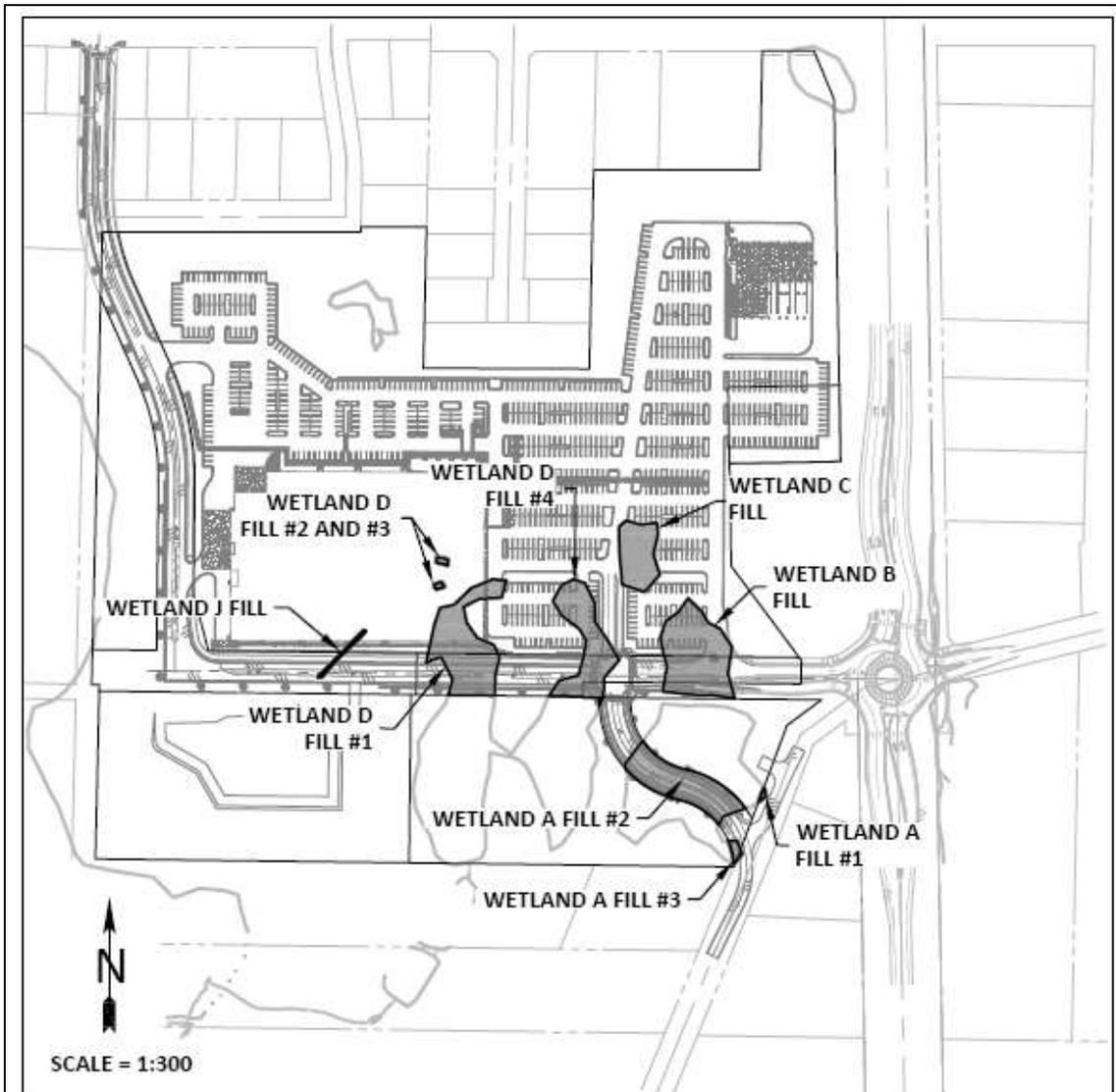
Dear Peter,

This report describes the wetland, stream and buffer impacts for the proposed Costco Warehouse project in the City of Lake Stevens Washington. The requirements for wetland and stream impacts within the City are detailed in Lake Stevens Municipal Code Chapter 14.44 Part VIII (Wetlands) and Part VII (Streams, Creeks, Rivers, Lakes and Other Surface Water).

Proposed Project and impacts

The proposed project includes the extension of 24th Street SE across the site and to the north, as well as the construction of a Costco Warehouse with associated parking areas, gas station and infrastructure. In addition, as part of the project, a total of six (6) off-site culverts within a tributary of Mosher Creek will be removed (3) and replaced (3) with fish passable culverts to improve fish habitat. The project as proposed will impact 1.72 acres of wetland as depicted on page 2 of this report.

In order to maintain a 95' buffer off the remaining wetlands, a "paper fill" was calculated for both the City required 95' Category II wetland buffer (1.39 acres), as well as the 220' WADOE Category II buffer (2.23 acres) as shown in the table on Page 3 of this report.



WETLAND ID	TOTAL WETLAND FILL	ROAD IMPACTS	STORE IMPACTS
WETLAND A #1	154 SF (0.004 ACRES)	154 SF (0.004 ACRES)	0 SF (0.00 ACRES)
WETLAND A #2	13,540 SF (0.31 ACRES)	13,540 SF (0.31 ACRES)	0 SF (0.00 ACRES)
WETLAND A #3	606 SF (0.14 ACRES)	606 SF (0.14 ACRES)	0 SF (0.00 ACRES)
WETLAND B	19,086 SF (0.44 ACRES)	9,284 SF (0.21 ACRES)	9,802 SF (0.22 ACRES)
WETLAND C	8,579 SF (0.20 ACRES)	0 SF (0.00 ACRES)	8,579 SF (0.20 ACRES)
WETLAND D #1	17,831 SF (0.41 ACRES)	7,796 SF (0.18 ACRES)	10,035 SF (0.23 ACRES)
WETLAND D #2	171 SF (0.004 ACRES)	0 SF (0.00 ACRES)	171 SF (0.004 ACRES)
WETLAND D #3	230 SF (0.005 ACRES)	0 SF (0.00 ACRES)	230 SF (0.005 ACRES)
WETLAND D #4	14,146 SF (0.33 ACRES)	6,275 SF (0.14 ACRES)	7,871 SF (0.18 ACRES)
WETLAND J	646 SF (0.015 ACRES)	333 SF (0.008 ACRES)	313 SF (0.008 ACRES)
	74,989 SF (1.72 ACRES)	37,988 SF (0.87 ACRES)	37,001 SF (0.85 ACRES)

WETLAND ID	LAKE STEVENS (95' BUFFER)	WA ECOLOGY (220' BUFFER)
WETLAND A	34,174 SF (0.79 ACRES)	39,392 SF (0.90 ACRES)
WETLAND D	26,243 SF (0.60 ACRES)	57,608 SF (1.32 ACRES)
	60,417 SF (1.39 ACRES)	97,000 SF (2.23 ACRES)

PAPER FILL SUMMARY
 FOR PERMITTING PURPOSES

Under Lake Stevens Municipal Code Chapter 14.88.010 the following criteria must be addressed for work in critical areas;

(a) A project proponent shall make all reasonable efforts to avoid and minimize impacts to critical areas and buffers in the following sequential order of preference:

(1) Avoiding impacts altogether by not taking a certain action or parts of an action; or

Response: Avoidance of the road portion of the project is not possible as the City’s long term transportation plan relies on construction of this road to meet traffic needs within this portion of the City. The road construction is also an allowed impact with appropriate mitigation as detailed in LSMC 14.88.220.j. Impacts from the road project include 2,313sf of buffer impact for improvements to the terminus of South Lake Stevens Road south of the site. In addition, 1,098sf of buffer impacts from 91st Avenue SE as well as 5,578sf of temporary buffer impacts from this road construction.

The construction of the Costco Warehouse requires a certain amount of land and configuration. The project would not be possible on this site without the proposed impacts. Numerous other sites have been reviewed as detailed in the attached Alternatives Analysis for the project. None of these were suitable for the proposed project either.

(2) When avoidance is not possible, minimizing impacts by limiting the degree or magnitude of the action and its implementation, using appropriate technology, or by taking affirmative steps, such as project redesign, relocations, or timing, to avoid or reduce impacts and mitigating for the affected functions and values of the critical area; and

Response: The site layout has been designed to avoid the most sensitive wetland and creek on the site (Wetland M & Mosher Creek). Some buffer impacts to the buffer of Wetland M will occur from the road construction of 91st Avenue SE due to the grades it must match up to on the intersection to the north. These have been reduced through increasing slope steepness to reduce temporary impacts. Impacts will be mitigated through buffer averaging and restoration.

In addition, the site plan has been revised to avoid Wetland F through reconfiguration of the site layout. The layout of the parking areas and warehouse are the minimum needed to have the facility be fully functional. There are no other ways to reduce the footprint and have a warehouse store that would work on the site.

(3) Reducing or eliminating impacts over time by preservation and maintenance operations during the life of the action.

Response: The project footprint has been reduced to the minimum size that a functional Costco warehouse can be. There are no other footprint reducing techniques that would further minimize impacts with the exception of not building the facility. If Costco were not to build the facility another large box store type applicant would apply for use of the property given the zoning of the property and impacts would no doubt be similar if not larger.

(4) Compensating for unavoidable impacts by replacing, enhancing or providing substitute resources or environments.

Response: As detailed below, off-site wetland mitigation bank credit purchase, will be utilized to mitigate for the proposed wetland fill and paper fill for buffer. These are the preferred methods of mitigation as dictated by both the US Army Corps of Engineers and WADOE.

However, Costco is proposing several off-site stream obstruction improvements as well as creation of 0.45 acres of Category II wetland along Wetland D to improve and maintain fish habitat for the small tributary of Mosher Creek. Costco is not taking any mitigation credit for these actions.

Mitigation Summary

The proposed mitigation for the proposed 1.72 acres of wetland impact as well as 2.23 acres of Wetland impact for conversion to wetland buffers will include three (3) separate mitigation measures as shown on the attached Sewall Wetland Consulting, Inc. “*Critical Areas Mitigation Plan Lake Stevens Costco*” dated 11/08/19 and revised to 4/6/20, and the Sewall Wetland Consulting, Inc. *Costco Bank Use Plan* dated 4/6/20;

1. Purchase of 3.044 credits in the Snohomish Mitigation bank to mitigate for 1.72 acres of wetland impact as well as 2.23 acres of Wetland impact for conversion to wetland buffers (paper fill). This will mitigate all of the impacts from the proposed project.
2. Removal of three (3) fish barrier culverts off-site to a Mosher Creek Tributary, and the replacement of three (3) other culverts with fish passable culverts. Enhancement plantings along 17,733sf of off-site stream buffer in the vicinity of the culvert improvements.
3. Creation of 0.45 acres of wetland/fish habitat along Wetland D.

As detailed in Lake Stevens Municipal Code Chapter 14.88.840 “Mitigation”; *The mitigation sequence set forth in this section should be applied after impact avoidance and minimization measures have been taken.*

Avoidance and Minimization

Avoidance and minimization measures are explained in great detail in the attached “Alternatives Analysis” for the project. There is no place or alternative layout within the City of Lake Stevens or the region with less impact on wetlands than that proposed for this project.

As detailed below, once impact avoidance and minimization have taken place (*as detailed in the attached Alternatives Analysis*), the following mitigation sequence is to take place;

14.88.840 Mitigation.

The mitigation sequence set forth in this section should be applied after impact avoidance and minimization measures have been taken.

(a) Location and Timing of Mitigation.

(1) Restoration, creation, or enhancement actions should be undertaken on or adjacent to the site, or, where restoration, creation, or enhancement of a former wetland is proposed, within the same watershed. In-kind replacement of the impacted wetland is preferred for creation, restoration, or enhancement actions. The City may accept or recommend restoration, creation, or enhancement which is off site and/or out-of-kind, if the applicant can

demonstrate that on-site or in-kind restoration, creation, or enhancement is unfeasible due to constraints such as parcel size or wetland type, or that a wetland of a different type or location is justified based on regional needs or functions;

Response: The fill of 1.72 acres of wetland on the site will remove all of the wetland north of the proposed 24th Street SE extension with the exceptions of wetlands F, G & M and their associated buffers which will be avoided. Portions of Wetlands A and D will remain intact south of 24th Street SE, as well as Wetland M along the western side of the site. Since a 95' buffer must be maintained off the proposed roads, a further impact of 1.41 acres of wetland from paper fill will occur. These increases to 2.23 acres of paper fill when the proposed 220' buffer requested by WADOE is placed upon these roads.

The areas available for mitigation in-kind and on-site are restricted to portions of Wetlands A, D and M. Wetland M and its buffer are relatively pristine and have a moderate slope along its eastern boundary making wetland creation along Wetland M not feasible. The area south of the proposed 24th Street SE extension is the only on-site areas feasible for mitigation (wetland creation). This is greatly reduced as a result of the required buffering of the proposed roads with a 95' buffer per City of Lake Stevens and 220' per WDOE. The federal and state permits (404 & 404) require mitigation be done off-site through credit purchase. In this area the Snohomish Mitigation Bank is an approved, and generally preferred mitigation method per the US Army Corps of Engineers and Department of Ecology. As a result, the use of the Snohomish Habitat Bank will be the primary source of mitigation and will cover all of the proposed impacts. Costco's voluntary wetland creation is not being included in its wetland mitigation credit calculations. As a result, for permitting purposes, all wetland impacts and paper fill impacts will be compensated for through bank credit purchase ignoring the actual wetland creation in Wetland D. The on and off-site mitigation proposed below is in addition to covering all impacts through Bank credit purchase.

Wetland D is a headwater to a small tributary to Mosher Creek. Maintaining the overall size, hydrologic inputs and connection to the tributary from this wetland is highly desirable. A total of 0.729 acres of Wetland D will be filled for the 24th Street extension as well as the Costco Warehouse. The proposed creation along Wetland D will add 0.45

acres of wetland between the lobes of the remaining Wetland D to maintain the overall size of the potential fish habitat within this headwater wetland. Wetland D is a Category II wetland and City Code requires a 3:1 ratio for Category II wetland impacts. However, the proposed impacts will be mitigated through the WADOE and USACOE approved mitigation ratios within the Bank which for Category II wetlands is 1.2:1. These ratios were developed based upon function and area replacement.

Application of the standard 95' buffers off the new segment of SE Lake Stevens Road and the new 24th street result in paper fill of wetland of 1.41 acres of parts of Wetland A and D. Since we are required by WADOE to mitigate within 220' of these Category II wetlands, a total of 2.23 acres of paper fill will occur.

In addition to the primary bank credit purchase and the on-site creation area, restoration of the off-site Mosher Creek tributary will occur which will include removal and /or replacement of 6 fish barrier culverts to improve fish habitat in this tributary.

(2) Whether occurring on site or off site, the mitigation project shall occur near an adequate water supply with a hydrologic connection to the wetland to ensure a successful wetlands development or restoration;

Response: The proposed creation will be between two lobes of Wetland D outside the 95' paper fill buffer. Monitoring of shallow groundwater tables with piezometers in the areas of proposed creation will take place in the winter and spring of 2020 into the early growing season to confirm the depth to groundwater in these areas. Depending upon our findings, some modification to grades may be needed in the creation areas to ensure adequate soil saturation/inundation to create wetland with the desired water regimes.

(3) Any approved proposal shall be completed before initiation of other permitted activities, unless a phased or concurrent schedule has also been approved by the Planning and Community Development Department;

Response: The proposed grading and creation area work will commence during the grading of the project.

(4) *Wetland acreage replacement ratios shall be as specified in Table 14.88-IV;*

Response: The mitigation is being conducted at the approved ratios for the Snohomish habitat Bank. These ratios have been approved by both the Corps and WADOE and appropriately replicate the lost functions from the fill. As allowed within Lake Stevens Code 14.88.276.6 (Alternative Mitigation):

(6) *Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification; and*

(5) *Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands.*

(i) *This provision may be used when:*

a. *The bank is certified under Chapter [173-700](#) WAC;*

Response: The Snohomish Basin Mitigation Bank is a certified mitigation bank per code.

b. *The Planning and Community Development Director determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and*

Response: It is our understanding the City has determined that the Snohomish Basin Mitigation Bank is providing adequate compensation per the City, US Army Corps of Engineers and WADOE.

c. *The proposed use of credits is consistent with the terms and conditions of the bank's certification.*

Response: The proposed credit purchase and calculations are consistent with the bank's certification.

(ii) *Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.*

Response: Replacement ratios for the proposed wetland impacts are consistent with the replacement ratios in the bank's certification.

(iii) Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

Response: The site is in the approved service area for the bank.

Maintenance and Monitoring

The proposed wetland creation and culvert removal and replacement work will be monitored for 5 years as required by Code. The details of this work are depicted on Sewall Wetland Consulting, Inc. "Critical Areas Mitigation Plan Lake Stevens Costco" dated 11-8-19 and revised to 4-6-20.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetlands Ecologist PWS #212