

Client

Village Green Metropolitan Park District

Project Address

Village Green Metropolitan Park
26159 Dulay Rd NE | Kingston, WA 98346
Kitsap County Parcel: 262702-4-089-2009

Consultant

John Bornsworth, BCMA, RCA
Jessica Mullin, RCA

Title – Tree Risk Assessment

Date – Jan 2023



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SUMMARY

Village Green Metropolitan Park District owns and manages the trees at Village Green Park. This report is an assessment of those tree's risk near trails, buildings, parking areas, and fences. Our observations and recommendations are contained herein. The report is broken into three sections:

- 1) General site observations.
- 2) A table of trees assessed and recommendations to manage those trees.
- 3) Permitting information to comply with Kitsap County critical area permits.

An overall assessment of forest health was conducted. The detailed assessment was split between two types across the parks 5.7 acres of forested land. First, an assessment of individual trees near targets was conducted. Secondly, an assessment of three stands, or groups, of trees on the southwest part of the property was conducted from afar because lack of access.

Not all trees near targets are described in this report. Trees near targets not contained in this report are low risk and have no conspicuous defects. Trees documented in this report had some defect or another, and through standard risk qualification procedures, were qualified as either low, moderate, or high risks.

In total, 34 trees are identified as high risk and 6 trees are identified as low risk.

We recommend full ground removal, or conversion into **habitat trees**, of 34 trees, of which 32 are within critical area buffers and require mitigation. We recommend installing trees at a 3:1 ratio, totaling 96 trees, for mitigation of trees removed inside the critical areas.

Outside of critical area mitigation, in an effort to restore the forest to a more natural condition, we recommend installing trees at a 1:1 ratio, totaling 2 trees, to replace the other removed trees.

We also recommend pruning two trees, removing English ivy (*Hedera helix*) off of two trees, monitoring two trees on a 3-year timeline, and reinspecting one tree after English ivy is removed.

Often with tree risk assessments, the risk is low if a tree were likely to fall on a trail because the likelihood of someone occupying that space when the tree fails is relatively low. However, for the purpose of this report since the Client is concerned specifically about trees falling on the trail and fence, Consultant rated trees with a higher likelihood of falling on a trail or a fence as high risk.

Words in bold are defined in *Appendix A: Glossary*.

Please contact us with questions you may have regarding this report.



BACKGROUND

Village Green Metropolitan Park District (the “Client”) requested a tree risk assessment of trees at Village Green Park, 26159 Dulay Rd NE, Kingston, WA 98346; Kitsap County Parcel 262702-4-089-2009 (the “Site”). The Client asked Peninsula Environmental Group, Inc. (the “Consultant”) to conduct this assessment near existing target zones (including trails, buildings, parking area, and fences) and to prepare this report. Our assessment, opinions, and recommendations are included in this letter.

Project Contact:

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Assignment & Purpose

1. Perform a site and tree risk assessment of trees near possible target zones.
2. Write report sufficient for permitting as needed in Kitsap County.
3. Provide a report with conclusions and recommendations to be used for bidding purposes for third party tree services.

Professional Assumptions & Limitations

This report summarizes the data collected during our site reconnaissance and assessment, our conversations regarding the project, and our professional opinions and recommendations. The results and recommendations of this report represent our professional opinion compiled from biological forensics, information provided to us, referenced material and our experience. Our recommendations are compiled with industry standards, best-available-science and currently accepted best management practices.

Additional project specific limitations:

- Consultant assessed the Site on January 10th, 2023. This report summarizes site characteristics as they were observed these days only.
- This report is intended for the exclusive use of the Client and their agents and only for specific application to the referenced property. This report should not be applied to any other tree or other property for any purpose.
- Our evaluation assesses only the tree identified within the scope of this project.
- Fungal isolation, laboratory diagnostics, subsurface explorations, aerial inspections, and other advanced diagnostics were not applied unless specifically identified in this report.



OBSERVATIONS

Table 1: Site properties as of assessment date.

City/County	Kitsap
Taxpayer	Village Green Metro Park District
Parcel	262702-4-089-2009
Account ID	2561207
Site Address	26126 Dulay RD NE, Kingston, WA 98346
Comprehension Plan Designation	Urban Low-Intensity Commercial/Mixed Use
Existing Structures	Community Center, sport court, playground
Total Site Acreage	12.60 acres (approx. 548,856-sf) Forested 5.7 acres
Elevation	~30 to 80-ft
Latitude/Longitude	47.79966908, -122.50279127
Section/Township/Range/Quarter	SEC 26, TWP 27, RNG 2E (SE/4)
Kitsap County Mapped Critical Areas	Stream Z Class III Wetland

Consultant walked all defined trails, parking area edges, and around buildings and visually assessed trees along those areas. Other targets where trees were assessed included fences, a community garden, a gazebo, and a field near a children’s playground. The trails were mostly forested with red alder (*Alnus rubra*) dominant with sub-dominant Douglas-fir (*Pseudotsuga menziesii*) and some bitter cherry (*Prunus emarginata*).

Visual tree assessment (VTA) methods were used to assess tree condition and risk. Trees mentioned in this report are tagged with a metal tag number and their GPS location was taken and recorded in the *Appendix B: Site Map*. Tree tags are generally placed on the northern side of the trunk when that is accessible, or otherwise most clearly visible from the trail or other position. The only trees that were not individually tagged were Groups 1, 2, and 3. These were three stands/groups of red alder trees that were located close to the stream with limited access to the base of the trees. Instead of an individual assessment of these trees, they were assessed as a group from afar.



Forest Descriptions

The main forest type on the Site consists of a red alder dominant forest with subdominant Douglas-fir and bitter cherry. This includes red alder trees of variable age on the northeast part of the Site and along the main trail that runs from the northeast part of the Site to the southwest part of the Site. Understory includes trailing blackberry (*Rubus ursinus*), salmonberry (*Rubus spectabilis*), and the invasive Himalayan blackberry (*Rubus armeniacus*) and English ivy. Many of the assessed red alder trees are growing in and around critical areas, including a Category III wetland and wetland buffer, and Kingston Creek (classified as a Stream Z) and its buffer. In general, the red alder dominated forest contained many red alder trees with dead tops, indicating suppressed health and eventual tree death.

Consultant was unable to access three groups of five red alder trees growing close to Kingston Creek on the southwest of the Site. These trees were assessed as three separate groups and are referred to as Group 1, Group 2, and Group 3 in this report.

The second subdominant forest type consists of a Douglas-fir dominant forest on the northwest part of the Site. This forest is generally healthy, but the trees are densely planted and many of the smaller trees are **suppressed** with some **epicormic growth**.

See *Appendix E: Table of Trees* below for specific tree, species, notes, and recommendations.



CRITICAL AREAS ON SITE

There are two critical areas on site:

- 1) Class III Wetland and its associated buffer.
- 2) Stream (Kingston Creek) and its associated Stream -Z buffer.

The wetland has a 40-foot buffer, according to the wetland rating for low intensity impacts like tree removals.

The stream has a 150-foot buffer irrelevant of land use intensity.

In total 32 trees recommended for removal are within one or both of the critical areas. According to Kitsap County critical code, the removal of those trees will require the reinstallation of 96 trees in a proximal location.

For planting specifics and details see *Appendix D: Plant Mitigation* Appendix D:



RECOMMENDATIONS & CONCLUSIONS

Consultant recommended converting high risk red alder trees with dead tops near targets into habitat trees. The idea is to reduce the trunk to a height where if it were to fall, it wouldn't cause significant damage. A Certified Arborist can mimic a natural break at the top, and this standing dead tree can provide habitat for nesting, foraging, and perching birds, along with small mammals and beneficial insects. However, if the contractor doing the work does not feel safe climbing a tree, or if there is not a safe tree to climb nearby, these trees can be removed from the ground.

In the critical areas, and wherever possible, all woody debris should be left on Site to naturally decompose. Branches and foliage can be chipped and used somewhere on Site.

In conclusion, we recommend the following actions for trees on the Site.

- 1) Review *Appendix E: Table of Trees* for detailed notes and recommendations assessed trees.
- 2) Remove English ivy from two trees.
- 3) Remove 32 high risk trees in critical areas.
 - a. Replant 96 number of trees in critical areas to comply with Kitsap County critical area code. Follow instructions in *Appendix D: Plant Mitigation*.
- 4) Remove two high risk trees outside of critical areas.
 - a. Replant two trees outside of critical areas to retain forest canopy on the park.
- 5) Prune dead or broken branches out of two trees.
- 6) Monitor two trees on a 3-year timeline.
- 7) Reinspect one tree after English ivy is removed from base.



CLOSING

Work for this project was performed and this report prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. No warranty, expressed or implied, is made. Neither the Consultants, nor Peninsula Environmental Group, Inc., has any current or prospective interest in the plants or properties discussed. Acceptance of this report acknowledges receipt and agreement with Peninsula Environmental Groups, Inc. attached Assumptions & Limiting Conditions.

Thank you for the opportunity to evaluate your project. We appreciate your business and look forward to working with you in the future. If you have questions now, or in the future, do not hesitate to contact us.

As always, during *extreme* weather events, we recommend staying away from large trees, whether healthy or not. Even healthy trees that have a low potential for failure under normal conditions, could fail if their load limits are surpassed.

A handwritten signature in black ink, appearing to read "Jessica Mullin".

ascaRCA
Registered Consulting Arborist®



Jessica Mullin | Consulting Arborist

Certified Arborist® #WE-12226A

Tree Risk Assessment Qualified® | Registered Consulting Arborist #765

Reviewed by:

A handwritten signature in black ink, appearing to read "John Bornsworth".

John Bornsworth | Senior Consultant

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9. This report and any values expressed herein represent the opinion of the Consultant, and the Consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event or upon any finding to be reported.
10. All photographs included in this report were taken by Consultant during the documented site visit, unless otherwise noted.
11. Sketches, drawings and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys. The reproduction of any information generated by architects, engineers or other Consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by Consultant as to the sufficiency or accuracy of the information.
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13. This report is based on the condition of the trees, landscape, or plants at the time of inspection.
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APPENDIX A: GLOSSARY

Bifurcated – dividing into two stems or trunks.

Epicormic growth – epicormic growth is the growth of new shoots from epicormic buds that lie dormant beneath the bark and is often a plant’s response to damage or stress.

Girdling – girdling can constrict the vascular tissue, inhibit growth, inhibit the movement of water and photosynthesis, and can eventually kill a branch or tree if it is not addressed in time.

Habitat tree – habitat trees are usually created or converted from high-risk or hazardous living trees and after conversion have a very low risk of failure. Conversions to habitat trees are great ways to effectively manage dead, diseased or hazardous trees safely while preserving the landscape aesthetic large trees and support dwindling avian populations.

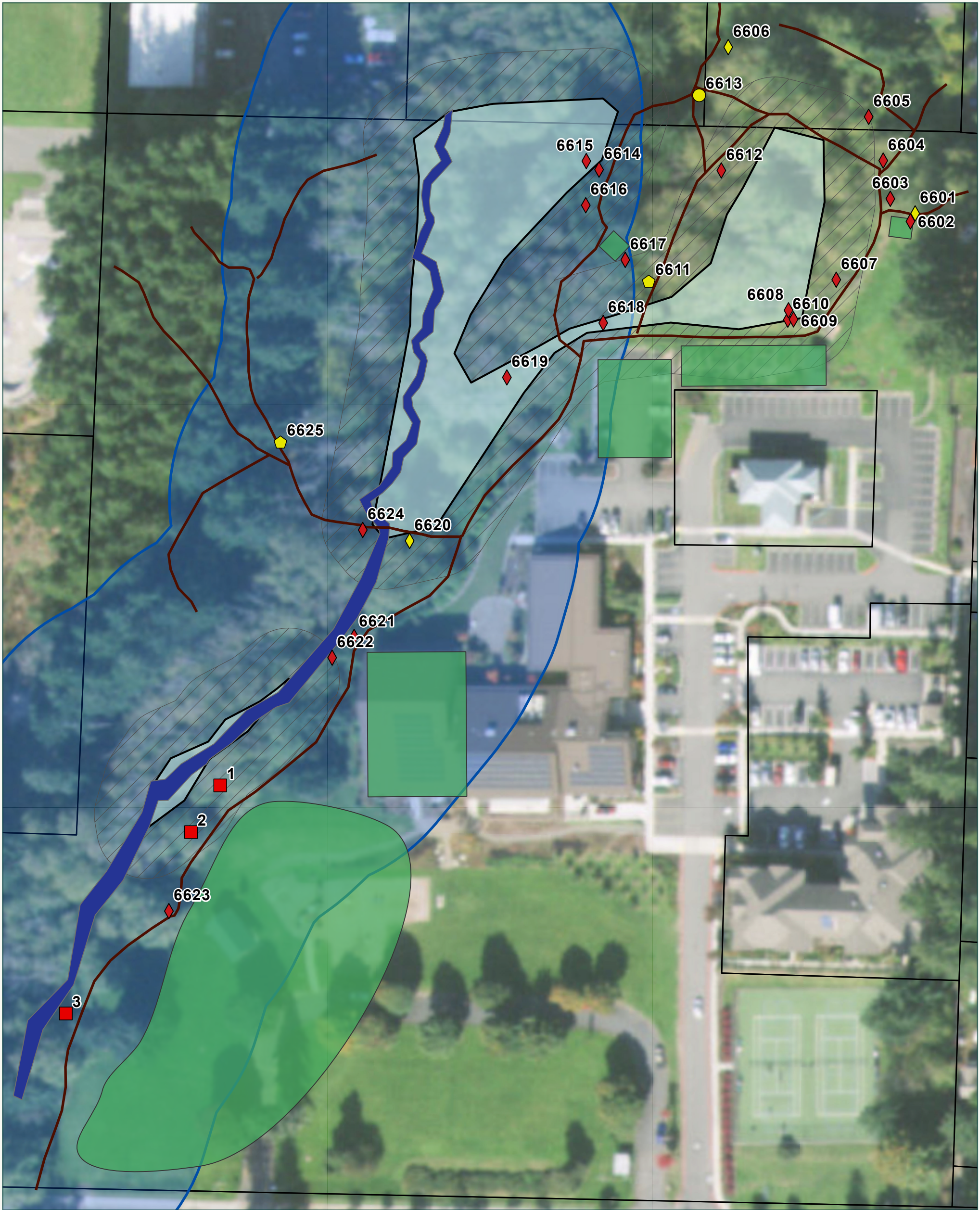
Included bark – ingrown bark that weakens the branch union.

Suppressed trees – these crowns are generally below the main level of the canopy. They receive no direct light. Crowns are generally short, sparse, and narrow.



APPENDIX B: SITE MAP

Village Green Tree Risk Assessment



Map created January 2023
 Map data collected by Consultant,
 parcel data sourced from Kitsap
 County, basemap sourced from ESRI.

Tree risk assessments utilize a systematic approach that incorporates likelihood of failure, likelihood of impact and consequence of failure, to measure the tree risk of specific targets.



Map Legend

- Tree Species - Risk Rating**
- ◆ Red alder - Low Risk
 - Bitter cherry - Low Risk
 - ◆ Douglas-fir - Low Risk
 - Red alder group - High Risk
 - ◆ Red alder - High Risk

- Potential targets**
- Exercise stations, community garden, parking, structures, play areas
 - Trails
- Critical Areas & Buffers**
- Kingston Creek
 - Stream Z buffer 150-ft
 - Category III wetland boundary
 - Wetland buffer low impact 40-ft
- Other features**
- Kitsap County parcels



APPENDIX C: PHOTOS

Photo 1: Tree 6601.





Photo 2: Tree 6602. Dead top.

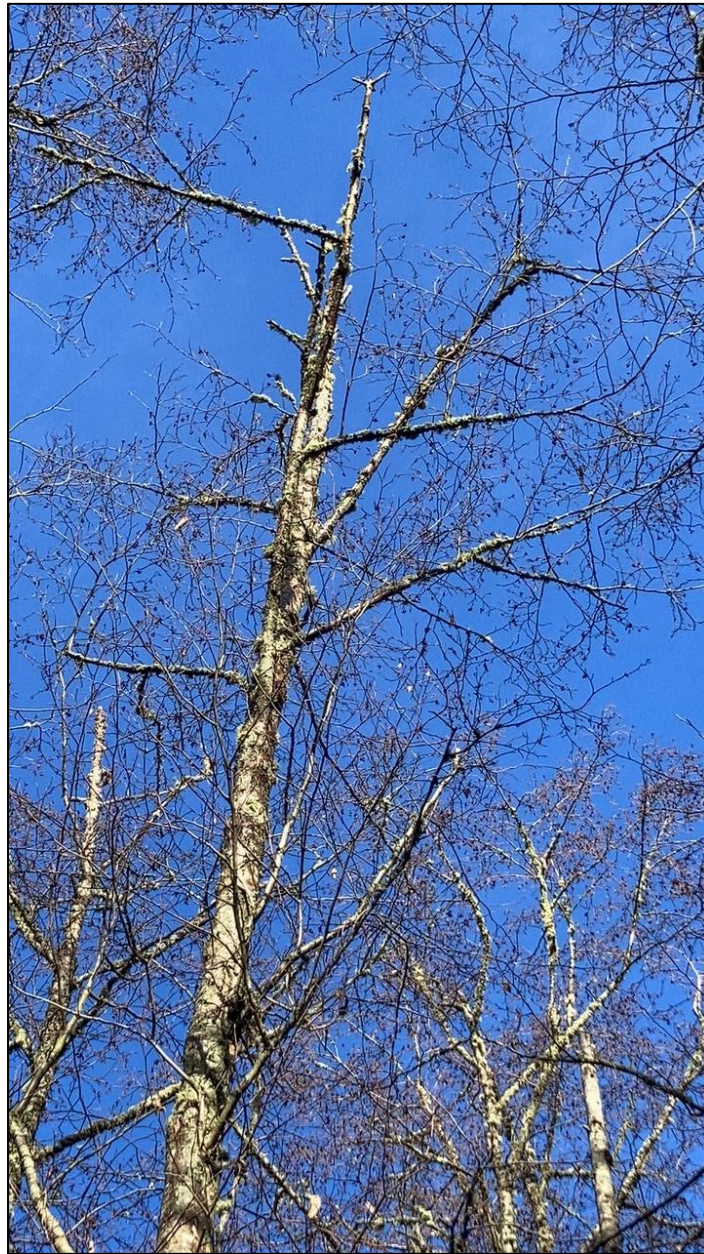




Photo 3: Tree 6603. Photo of decay.





Photo 4: Tree 6604 with decay at base.





Photo 5: Tree 6604 with girdling root.





Photo 6: Tree 6607-leaning red alder with red line through it.





Photo 7: Tree 6607: canopy of tree over exercise structure.





Photo 8: Tree 6608 with dead branches.





Photo 9: Tree 6609.





Photo 10: Tree 6610 with dead top.





Photo 11: Tree 6610 with community garden target.





Photo 12: Tree 6611 with broken branch above trail.





Photo 13: Tree 6612.





Photo 14: Tree 6613.





Photo 15: Tree 6614.





Photo 16: Tree 6618.





Photo 17: Tree 6619. Covered in ivy.





Photo 18: Tree 6620. Covered in ivy and building as a target.





Photo 19: Tree 6620. Red line indicates approximate areas of stub cuts.





Photo 20 Tree 6621. One stem is covered in ivy.





Photo 21: Tree 6621. Bifurcated at base and covered with ivy.





Photo 22: Tree 6622.





Photo 23: Tree 6622. Bifurcated at base and covered with ivy.





Photo 24: Tree 6623. High risk with fence and gazebo as targets.





Photo 25: Tree 6623 with Ganoderma applanatum and Kretzschmaria deusta at base.





Photo 26: Tree 6624. Snag/dead tree.





Photo 27: Tree 6625. Wound at base.





Photo 28: Tree Group 1. Multiple dead tops.





Photo 29: Red alder tree Group 2. Red alder tree leaning over trail.





Photo 30: Red alder tree Group 2. Dead tops.





Photo 31: Red alder tree Group 3. Red alders with dead tops next to recently failed red alder tree.





APPENDIX C: TREE RISK EVALUATION METHODOLOGY

Tree risk assessment methods used on this project were developed by the International Society of Arboriculture in 2013. The Tree Risk Assessment Manual authored by Dr. Julian Dunster and published by the ISA is the standard for qualifying and managing tree risk. This systematic approach to tree risk incorporates *likelihood of failure*, *likelihood of impact* and *consequence of failure* to measure the tree risk of specific targets. See Table 1 for details. The ANSI standard for risk assessment and ISA's Best Management Practices: Tree Risk Assessment defines three levels of tree risk assessment.

Level 1: Limited visual	Level 2: Basic	Level 3: Advanced
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Level 1 is a tree analysis from a single perspective taken from a vehicle, while walking, aerially, or other mode of limited eyesight. Level 1 is used to ascertain high-priority, conspicuous tree features and defects, rapidly from a large population of trees. Street trees and other municipally owned trees are often prioritized with a Level 1 assessment. Level 2 involves a full spectrum visual evaluation of an individual tree. The perspective includes 360° of the trees, and with an adequate level canopy assessment from the ground. Level 2 allows the tree assessor to identify conspicuous and some inconspicuous features, defects, conditions, diseases, and pests on a tree. Tree health, structure, form, compensatory growth, and external influences are outlined in Level 2. Level 3 can be used when tree features/defects/conditions cannot be determined by other assessments. Level 3 includes aerial inspections, resistance-drill tests, sonic-tomography, UAVs, LIDAR and more.

Tree risk exposure is measured through targets. A target must be present for the presence of risk. Targets may include houses, vehicles, driveways, utility wires, infrastructure, other plants, and environmentally critical areas. Using the Matrix 1 and 2, we identify a likelihood of tree part failure. This can be root, trunk, branch, or twig failure. We then evaluate the likelihood of this failure impacting a predetermined target. Finally, we evaluate the consequences of failure shall a tree part both fail and impact a target.

Some options for mitigation of tree risk include:

Acceptance of risk: All vegetation comes with some inherit risk. Most often this risk is tolerable and will have no significant effects on risk potential. Normally, tree benefits far outweigh associated risks.

Retain and monitor for changes: When a tree has some level of potential risk but not enough to warrant a more extensive mitigation. Most retain and monitor plans recommend a return timeframe of 1-10 years.

Move offending target from damage radius: If target is not fixed, this can be the simplest of mitigation techniques.

Modify probability of failure: This mitigation includes techniques like stress-load-reductions, propping, cabling, bracing and habitat conversions.

Full removal of tree risk: Full removal of offending tree or tree parts.

Limitations: The Science of Arboriculture cannot detect and predict with certainty tree failure or timing of tree failure. An "Act of God" is when a tree fails after tree owner due diligence and Standard of Care have been met. As always, during extreme weather events, we recommend staying away from large trees, whether healthy or not. Even healthy trees that have a low potential for failure under normal conditions, could fail if their load limits are surpassed.



Matrix 1. Likelihood of Failure and Impact (Dunstser, 2013)

<u>Likelihood of Failure</u>	<u>Likelihood of Impacting Target</u>			
	Very Low	Low	Medium	High
<i>Imminent</i>	Unlikely	Unlikely	Likely	Very likely
<i>Probable</i>	Unlikely	Unlikely	Somewhat likely	Likely
<i>Possible</i>	Unlikely	Unlikely	Unlikely	Somewhat likely
<i>Improbable</i>	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk Rating

<u>Likelihood of Failure and Impact</u>	<u>Consequences of Failure</u>			
	Negligible	Minor	Significant	Severe
<i>Very likely</i>	Low	Moderate	High	Extreme
<i>Likely</i>	Low	Moderate	High	High
<i>Somewhat likely</i>	Low	Low	Moderate	Moderate
<i>Unlikely</i>	Low	Low	Low	Low

Roles and Responsibilities of Tree Risk:

The proper roles of Tree Risk Assessors (Certified Arborists with additional training and qualification as a Qualified Tree Risk Assessor) and Tree Risk Managers (owners of trees) are very different. These roles are clearly delineated in two publications which are generally accepted guidelines for tree risk assessment in the arboricultural industry, Tree Care Industry Association (2011) and Smiley et al. (2011).

The Tree Risk Assessor’s role includes the following responsibilities, as defined in a scope of work or project assignment:

Evaluate and classify the likelihood of a tree failure impacting a target, evaluate the potential consequences of a tree failure, record and explain findings to the client, determine tree risk, and provide options for treatment to mitigate risk.

Responsibilities of Tree Risk Managers (tree owner or controlling authority) may include the following:

Meet a duty of care, determine the scope of work, specify the desired level of assessment, choose among risk mitigation options, decide the level of acceptable risk, and, prioritize work.

References:

Dunster, J., Smiley, E. T., Matheny, N., and Lilly S. 2013. Tree Risk Assessment Manual. Champaign, Illinois: International Society of Arboriculture.

Smiley, E. T., N. Matheny, and S.J. Lilly. 2011. Best Management Practices: Tree Risk Assessment. International Society of Arboriculture, Champaign, IL. 81 pp.

Tree Care Industry Association. 2011. American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Tree Risk Assessment a. Tree Structure Assessment) (A300, Part 9) Tree Care Industry Association, Manchester, NH. 14pp.



APPENDIX D: PLANT MITIGATION

We recommend 34 trees are removed from the ground or converted into habitat trees on the Site.

Thirty-two of these trees are in a critical area, either within a Class III wetland, wetland buffer, stream, or stream buffer.

For trees removed in critical areas, trees should be replanted on a 3:1 basis. For trees removed outside of critical areas, trees should be replanted on a 1:1 basis to retain tree canopy. A total of 98 trees should be replanted for mitigation.

1. Trees should be red alder or western redcedar (*Thuja plicata*) trees.
2. Plant bareroot or 1-gallon trees.
3. Planting shall ideally be performed in the late fall through winter, and at least in the window of October to March.
4. Provide irrigation during summer months for the first two years after planting. No machinery shall be used. If installing irrigation, irrigation work shall be done by hand and with hand operated equipment.
5. Do not plant small trees close to structures that they may impact with roots or branches to such a degree that they would require removal in the future.
6. All plant installation shall be done by hand with hand operated equipment.
7. Plant installation shall follow 2012 ANSI A300 Part 6: Tree, Shrub, and Other Woody Plant Management – Standard Practices (Planting).
8. Consider using plant protective barrier if grazers, such as deer, are impacting survival.
9. Local nursery stock should be used, when available, to ensure that the material has acclimated to local conditions and is genetically comparable with plants in the local area.
10. *If specified plant species are not available due to limited inventories at local nurseries, or prove during monitoring to perform poorly onsite, substitutions may be allowed provided the plants are native or native hybrids within the same general plant stratum (upper, middle, or lower strata).*

APPENDIX E: TABLE OF TREES

Tree Tag#	Species	Critical Area	DBH ¹	Risk ²	Target(s)	Notes and Recommendations
6601	Red alder <i>Alnus rubra</i>	No	11	L	Trail/ Exercise station	1) Remove dead branch hanging over exercise station. 2) Branch is 3-inches diameter.
6602	Red alder <i>Alnus rubra</i>	No	14	H	Trail/ Exercise station	1) Dead top. 2) Convert into habitat tree.
6603	Red alder <i>Alnus rubra</i>	No	13	H	Trail Exercise station	1) At least 10 feet of visible decay at base. 2) Convert to habitat tree or remove.
6604	Red alder <i>Alnus rubra</i>	No	10	H	Trail	1) Girdling root and decay. 2) Convert to habitat tree.
6605	Red alder <i>Alnus rubra</i>	Wetland Buffer	9	H	Trail	1) At least 10 feet of visible decay at base. 2) Convert to habitat tree or remove.
6606	Red alder <i>Alnus rubra</i>	No	16	L	Trail	1) Bifurcated , likely with some included bark . 2) This part of the trail is hard to find, overgrown, and does to seem to be used often. 3) Monitor tree on a 3-year basis. Reassess if this part of trail becomes widely used.

¹ Diameter of tree trunk at Breast Height in inches, measured at 4.5 feet

² L=Low risk, M=Moderate risk, H=High risk (See Appendix C: Tree Risk Evaluation Methodology)

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6607	Red alder <i>Alnus rubra</i>	Wetland Buffer	12	H	Trail/ Exercise station	1) Heavy lean that straightens out at the top but is over exercise station. 2) Convert to habitat tree.
6608	Red alder <i>Alnus rubra</i>	Wetland	8	H	Trail/ Parking/ Community garden	1) Mostly dead. 2) Convert to habitat tree.
6609	Red alder <i>Alnus rubra</i>	Wetland	13	H	Trail/ Parking/ Community garden	1) Dead top. 2) Convert to habitat tree.
6610	Red alder <i>Alnus rubra</i>	Wetland	14	H	Trail/ Parking/ Community garden	1) Dead top. 2) Convert to habitat tree.
6611	Douglas-fir <i>Pseudotsuga menziesii</i>	Wetland Buffer	21	L	Trail	1) Broken branch over trail, approximately 5-7 inches in diameter. 2) Remove branch.
6612	Red alder <i>Alnus rubra</i>	Wetland Buffer	21	H	Trail	1) Mostly dead. 2) Convert to habitat tree.
6613	Bitter cherry <i>Prunus emarginata</i>	No	9	L	Trail	1) Bifurcated stem but did not observe included bark. 2) Ivy growing up tree. Multiple dead branches smaller than 3-inches in diameter. 3) Remove dead and remove ivy.



6614	Red alder <i>Alnus rubra</i>	Wetland and Stream Buffer	10	H	Trail	1) Mostly dead. 2) Convert to habitat tree.
6615	Red alder <i>Alnus rubra</i>	Wetland	16	H	Trail	1) Dead top. 2) Convert to habitat tree.
6616	Red alder <i>Alnus rubra</i>	Wetland and Stream Buffer	23	H	Trail	1) Dead top. 2) Older tree. 3) Convert to habitat tree.
6617	Red alder <i>Alnus rubra</i>	Wetland and Stream Buffer	15	H	Trail/Structure	1) Mostly dead with some disease. 2) Convert to habitat tree.
6618	Red alder <i>Alnus rubra</i>	Wetland	14	H	Trail/ Parking	1) Mostly dead. 2) Convert to habitat tree.
6619	Red alder <i>Alnus rubra</i>	Wetland	26	H	Trail/ Parking	1) Dead top. Ivy at base. 2) Convert to habitat tree.
6620	Red alder <i>Alnus rubra</i>	Wetland and Stream Buffer		L	Trail/ Structure	1) Multi-stemmed tree with approximate DBH of 12, 30, 15, and 18 inches. 2) Covered with English ivy. 3) Could not measure or observe base because of ivy.



						<ol style="list-style-type: none"> 4) Prune ivy off tree. 5) Inspect base after ivy removal.
6621	Red alder <i>Alnus rubra</i>	Stream Buffer	15	H	Trail/ Structure	<ol style="list-style-type: none"> 1) Bifurcated at base. 2) The two stems measure 15 and 18-inches DBH. 3) One stem is covered with English ivy. 4) Multiple dead branches 3 to 5-inches in diameter. 5) Remove tree or convert to habitat tree.
6622	Red alder <i>Alnus rubra</i>	Wetland and Stream Buffer	24	H	Trail/ Structure	<ol style="list-style-type: none"> 1) Bifurcated at base with some included bark. 2) The two stems measure 18 and 24-inches DBH. 3) English ivy covers part of the stems. 4) Remove tree or convert to habitat tree.
1	Red alder <i>Alnus rubra</i>	Wetland and Stream Buffer		H	Trail/Fence/ Field by play structure	<ol style="list-style-type: none"> 1) Not tagged. 2) Group of five trees. 3) Some trees are dead and some have dead tops. 4) Remove trees or convert to habitat trees.
2	Red alder <i>Alnus rubra</i>	Wetland and Stream Buffer		H	Trail/ Fence/ Playground park	<ol style="list-style-type: none"> 1) Not tagged. 2) Group of five trees. 3) Remove trees or convert to habitat trees (including the tree growing close to the fence).
6623	Red alder <i>Alnus rubra</i>	Stream Buffer		H	Trail/ Fence/ Gazebo with picnic tables	<ol style="list-style-type: none"> 1) Fungi growing at base (<i>Ganoderma applanatum</i> and <i>Kretzschmaria deusta</i>). 2) Ground removal of all three trunks or convert into habitat tree.



3	Red alder <i>Alnus rubra</i>	Stream Buffer		H	Trail/ Fence	<ol style="list-style-type: none"> 1) Next to a recently failed red alder. 2) Group of 5 trees with multiple dead branches larger than 3-inches in diameter and some dead tops. 3) Located close to stream-the roots might get regularly inundated. 4) Could not observe base of trees because of location. 5) Remove trees or convert to habitat trees.
6624	Red alder <i>Alnus rubra</i>	Wetland and Stream Buffer	22	H	Trail	<ol style="list-style-type: none"> 1) Dead tree. 2) Reduce height of snag to 15 feet. 3) Remove side branches.
6625	Douglas-fir <i>Pseudotsuga menziesii</i>	Stream Buffer	12	L	Trail	<ol style="list-style-type: none"> 1) Suppressed tree with 1x1 foot wound about 5 feet off ground. 2) Monitor on a 3-year basis.