



Harvey Manning Park Expansion Preservation Project Project Design Document

TABLE OF CONTENTS

LOCATION OF PROJECT AREA (Section 1.3 and Section 1.4).....	2
CARBON QUANTIFICATION DOCUMENTATION (Section 10)	7
MONITORING AND REPORTING (Section 7).....	11
ATTESTATIONS	11

INSTRUCTIONS

Project Operators complete and submit this Project Design Document (PDD) once for the project. City Forest Credits (CFC) then reviews this PDD for validation with all other required project documents. An approved third-party verifier then conducts verification.

Please complete sections where you find “[Enter text here]” as thoroughly as possible.

PROJECT OVERVIEW

Basic Project Details

Project Name: Harvey Manning Park Expansion Preservation Project

Project Number: 15

Project Type: Preservation Project (under the 40-year Tree Preservation Protocol – version 10.40, dated February 7, 2021)

Project Start Date: 12/6/21

Project Location: Issaquah, WA

Project Operator Name: City of Issaquah

Project Operator Contact Information: Jennifer Fink, Park Planner and Project Administrator, jenniferf@issaquahwa.gov, (425) 837-3322

LOCATION OF PROJECT AREA (Section 1.3 and Section 1.4)

Location Eligibility

Project Areas must be located in parcels within or along the boundary of at least one of the following criteria.

- A. The Urban Area boundary (“Urban Area”), defined by the most recent publication of the United States Census Bureau*
- B. The boundary of any incorporated city or town created under the law of its state;*
- C. The boundary of any unincorporated city, town, or unincorporated urban area created or designated under the law of its state;*
- D. The boundary of land owned, designated, and used by a municipal or quasi-municipal entity such as a utility for source water or watershed protection;*
- E. A transportation, power transmission, or utility right of way, provided the right of way begins, ends, or passes through some portion of A through D above.*

Project Area Location

Describe where the Project Area is located and how it meets the location criteria. Include title/filename of relevant attachments.

The Harvey Manning Park Expansion project site is in the City of Issaquah limits and is also within the greater Seattle area urban growth area. It is also just south of the City’s Central Issaquah area, a

designated growth center within the city. The project site also within the Mountains to Sound Greenway National Heritage Area corridor and the WRIA #8 watershed.

The site is positioned to provide contiguous forested habitat for the 5,000+ acre Cougar Mountain Regional Wildland Park, Cougar/Squak Corridor and Squak Mountain State Park. Along with its relationship to Cougar Mountain public lands, the project site is part of the forested “Issaquah Alps” comprised of Tiger, Squak and Cougar Mountains, that rise above Lake Sammamish.

Project Area Parcels

List of parcel or parcels covered by the Preservation Commitment(s), collectively defining the Properties, noting which ones contain the Project Area, each with a unique identifier.

Jurisdiction / Location	Property Name	Property Parcel Number	Description / Notes
Issaquah	Harvey Manning Park	2024069017	All parcels listed were purchased at the same time.
Issaquah	Harvey Manning Park	2924069009	
Issaquah	Harvey Manning Park	2924069003	
Issaquah	Harvey Manning Park	2924069008	
Issaquah	Harvey Manning Park	2924069013	
Issaquah	Harvey Manning Park	2924069004	

Maps

Provide a map of the Project Area with geospatial location vector data in 1) pdf form and 2) any file type that can be imported and read by Google Earth Pro (example KML, KMZ, or Shapefile format). Map should include relevant urban or town boundaries, legend, and Project Area. Include filename of relevant attachments.

Geospatial location (boundaries) of Project Area

Filename: Attachment A – Harvey Manning Property shapefiles

Regional-scale map of Project Area

Filename: Attachment B - Regional Location Map

Detailed map(s) of Project Area

Filename: Attachment C – Harvey Manning Park Expansion Map

OWNERSHIP (Section 1.5)

Project Operator must demonstrate ownership of potential credits or eligibility to receive potential credits. If the Project Operator is not the same as the landowner, provide agreement(s) between Project Operator and landowner authorizing Project Operator to execute this project. Include documentation including title/filename as an attachment.

Project Owner and Explanation: City of Issaquah, Statutory Warranty Deed, OPR #20190228001113

Filename: Attachment D - Harvey Manning Park Deed 20190228001113

DEMONSTRATION OF THREAT OF LOSS (Section 4.2 and Section 4.3)

Project Operator must demonstrate that the Project Area is eligible per existing land use designations. Provide evidence to support the following statement: "Prior to the Preservation Commitment(s), the Project Trees were not preserved from removal through a Recorded Encumbrance, Governmental Preservation of Trees on Public Land, or other prohibitions on their removal."

Describe all "overlay zones," critical areas and their protection buffers, legal encumbrances, and any other pre-existing tree/forest restrictions that may have hindered removal of the Project Trees (in the pre-Preservation Commitment condition). If such pre-existing tree/forest restrictions cover any portion of the Project Area, explain how such restrictions still permitted development and tree removal (such that there was a verifiable threat of loss consistent with your quantification) and provide supporting evidence including a map.

Land use designation(s) for the Project Area:

The City submitted an application to the City Community Planning and Development Department to rezone all parcels currently zoned Single Family – Suburban (SF-S) and Single Family – Estate (SF-E) to Community Facilities – Open Space (CF-OS). This process should be complete by the end of 2021, but not prior to the City's carbon application being submitted to CFC. It is the City's intent to retain the property as protected open space while providing the public with passive recreational trail connections.

Parcel #	Acres	Current Zoning	Proposed Zoning
2024069017	0.48	SF-S	CF-OS
2924069009	5	SF-E	CF-OS
2924069003	6.71	SF-S	CF-OS
2924069008	5	SF-E	CF-OS
2924069013	5	SF-E	CF-OS
2924069004	11.34	SF-S	CF-OS
Total	33.53		

Overall Explanation (Section 4.3 B, C, or D)

History of the Harvey Manning Park Expansion Preservation Project

The Bergsma family owned the 46-acre project site since the 1940's. On multiple occasions over the years, the property had been proposed for development. In 2017, Windward Bergsma LLC, submitted a development application for 57-lot residential subdivision to the City of Issaquah.

Save Cougar Mountain, the Issaquah Alps Trails Club and community members attended City Council meetings to express concerns over the deforestation and other impacts the proposed development will make on Cougar Mountain's forest, streams, and wetlands. One of the biggest threats to the project site's ecological integrity is the forest habitat fragmentation the proposed development would create - damaging the sites contiguous biodiversity area and corridor.

With an active development proposal on the project site, and with growing public pressure, the City partnered with The Trust for Public Land and King County. In August 2018, Issaquah City Council authorized resolution 2018-13 in support of pursuing purchasing all or a part of the 46-acres site proposed for development. Through our partnership, with the Trust for Public Land, on February 28, 2019, King County acquired of 12.5 acres (one parcel) of the Bergsma property to be added to Cougar Mountain Regional Wildland Park, and the City of Issaquah acquired the remaining 33.53 acres (six parcels). The City purchased the 33.53 acres for \$10,644,564 in February 28, 2019.

Many letters of support were received for both the City's acquisition of the property and grant (funding) applications from: The Trust for Public Land; King County; Mountains to Sound Greenway Trust; Issaquah Alps Trails Club; and Save Cougar Mountain. Save Lake Sammamish is also a very strong supporter of this project and has contributed funds to the acquisition.

The City acquired this property with the intent of protecting the forest from development, and retaining it as open space. Since acquisition, the City has received two grants to secure conservation of the site's forest: a King County Conservation Futures Tax Levy, and Recreation Conservation Office, Washington Wildlife and Recreation Program, Urban Wildlife Habitat. To complete the City's preservation goals, the City is actively pursuing a carbon credit application to further demonstrate the benefits of forest acquisition and preservation for future generations. Proceeds from carbon sale will be used to support the City's Green Issaquah program by removing invasive plant threats from the site and restoring a healthy forest understory. The Green Issaquah program has a strong network willing to protect the project site for its 40-Yr preservation commitment.

The City is actively working on its first Climate Action Plan and has held several Community Convening on Climate conversations. Issaquah's Climate Action Plan is slated to be adopted at the end of 2021. The City has also initiated a Green Issaquah – Forest Stewardship Program, supporting urban forest health through invasive management and restoration efforts. Also in process, is the City's update of the Storm, Surface and Wastewater master plan that demonstrates the active role City forests and open space play in stormwater management.

Development Status upon City's Acquisition of the Property

The Bergsma Property (aka. Harvey Manning Park Expansion Area) was being developed by Windward, LLC. The development was being considered through the City's subdivision permitting process which consists of two-steps; a preliminary plat and a final plat. The proposed development requested 3 critical

area variances, which were all approved, and a preliminary plat (PP16-00001) that was withdrawn after 5 rounds of review by City staff. A SEPA decision of Mitigated Determination of Non-Significance (SEP17-00002) was issued for the development prior to the preliminary plat decision. Approval of the preliminary plat would have allowed a Site Work permit (clearing and grading permit) to begin installation of the project sites' access road and utilities. Once the site improvements are installed and a bond in place for outstanding work, the development may go through the second subdivision step, and the development goes before the hearing examiner for a determination on the final plat which then gets recorded. The City acquired the property after the preliminary plat request was withdrawn.

Protocol Criteria

This project meets CFC Tree Preservation Protocol criteria Section 4.3 C "Had been sold or conveyed or had an assessed value within three years of preservation under Subsection 4.1 for greater than \$10,000 average price per acre for the bare land." The property was purchased for \$10,644,564, which is \$317,463 per acre. See Attachment K, L, and M for supporting documentation.

*Filename: Attachment E - Issaquah Zoning Official Map HMP
Attachment F - PP16-00001 Plan Set 2017-10-23 1
Attachment G - PP16-00001 Plan Set 2017-10-23 3
Attachment H - SEP17-00002 MDNS decision
Attachment I - VAR16-00001 HE decision
Attachment J - Purchase and Sale Agreement
Attachment K – Buyers Settlement Statement
Attachment L - Promissory Note*

PRESERVATION COMMITMENT (Section 4.1)

Provide a complete copy of the written Preservation Commitment. If the Project Operator is not the same as the landowner and the carbon rights (right of Project Operator to receipt and disposal of credits) are not established in the Preservation Commitment itself, then attach the agreement establishing these rights. If Project Area does not have the same boundaries as Preservation Commitment, please state the reasons why, and reference the PDD section(s) where those reasons are discussed in detail.

Preservation Commitment title/filename of relevant attachment(s):

Filename: Attachment M – Declaration of Development Restrictions 20211210000480

Date signed and date recorded: 12/6/21 and 12/10/21

Preservation Term (years applicable): 40-years

Explanation of document:

The Preservation Commitment will encumber the entire 33.53 acres (parcels, 2024069017, 2924069009, 2924069003, 2924069008, 2924069013, 2924069004). In doing so, the site is protected and stewarded in a consistent and uniform manner for the preservation term. The project area is 15.14 acres and is completely contained within the parcel boundaries outlined above.

CARBON QUANTIFICATION DOCUMENTATION (Section 10)

Follow detailed instructions in the Protocol for conducting quantification and utilize the Carbon Quantification Spreadsheet to show calculations. Ensure that your requested credit issuance schedule (issuance dates) is accurate and complete in the spreadsheet. Project Operators should describe and appropriately reflect in their carbon quantification any and all planned future activities that may affect the percent canopy or carbon stocking in any way.

Method for determining canopy cover (e.g. i-Tree, inventory, other)

Utilized i-Tree canopy tool to estimate the percentage of tree canopy cover.

Brief description of approach to quantifying carbon (e.g. US Forest Service General Technical Report NE-343 Tables, inventory, other)

The afforestation table from Appendix B of the US Forest Service General Technical Report (GTR) (NG_GTR-343) for Pacific Northwest forests - 89% Alder/Maple and 11% Doug Fir.

Filename of your completed Carbon Quantification Spreadsheet:
Attachment N - Harvey Manning Park Carbon Quantification 20211206

Summary numbers from Carbon Quantification Spreadsheet

Project Area (acres)	15.14
Does carbon quantification use stratification (yes or no)	No
Percent tree canopy cover within Project Area	100
Project stock / acre (tCO ₂ e/acre)	11,098
Accounting Stock / acre (tCO ₂ e/acre)	8,879
On-site avoided biomass emissions (tCO ₂ e / acre)	7,991
On-site avoided soil carbon emissions (tCO ₂ e / acre)	850
Deduction for displaced biomass emissions (tCO ₂ e / acre)	1,462
Deduction for displaced soil emissions (tCO ₂ e / acre)	257
Credits from avoided biomass emissions (tCO ₂ e / acre)	6,529
Credits from avoided soil emissions (tCO ₂ e / acre)	592
Total credits from avoided biomass and soil emissions (tCO ₂ / acre)	7,121
Credits attributed to the project (tCO ₂), excluding future growth	7,121
Contribution to Registry reversal pool	712
Total credits to be issued to the Project Operator (tCO₂) (excluding future growth)	6,409

Data Sources & Filenames Referenced in Carbon Quantification Spreadsheet

The following list of information is only a summary for ease of navigation of your PDD.

Accounting Stock Measurement Method

Description of quantification, including methods, forest type, and data sources.

Used Option 10.1 A. The relevant afforestation tables, Appendix B, from the USFS GTR NE-343 is already included in the Carbon Quantification Spreadsheet.

Filename: n/a

Stratification

If stratification is used, maps of strata and stratum definitions

Stratification was not used for carbon quantification.

Stand Maps

Explanation / statement of method(s) used

The stand map was created using King County parcel viewer (a 2019 aerial image summer image), and the City's ArcGIS (winter image).

Filename: Attachment O – Stand Map a

Attachment P – Stand Map b

Forest Age

Provide historical imagery or other methods to support forest age documentation. Explanation / statement of method(s) used:

Historical imagery was used to document the presence and persistence of tree cover in the Project Area. In March 2020, the largest tree identified was 52" dbh. Historical images support an estimated forest age of 105 years.

Filename: Attachment Q - Forest Age 1946 Image

Attachment R – Forest Age 1936 Image

Forest Composition

Composition and explanation / statement of method(s) used:

Dr. Gordon Smith conducted a site visit on December 3, 2021 to assess the forest composition. Based on his analysis, the project area was identified as 89% deciduous and 11% coniferous. Aerial images Attachments I-L support the forest mix as well as photographs.

Filename: Attachment S – Picture1

Attachment T – Picture2

Canopy Cover

Provide i-Tree Canopy report that shows estimated percentage of tree cover. Explanation / statement of method(s) used:

The i-Tree Canopy tool was used to estimate the percentage of tree cover over the entire property and was determined that there was 100% tree canopy cover. Over 500 random data points were utilized over satellite imagery to determine percent cover over all 33.53 acres, and the same would be true for the 15.14 acres project site.

Filename: Attachment U - i-Tree Canopy Report

Fraction of Biomass at Risk

Fraction at risk and explanation / statement of method(s) used:

Used 90% of Accounting Stock per section 10.2: Project Area is 15.14 acres with 50 dwelling units. Note that ROWs (rights of way) and storm vaults that would be completely cleared total 168,524 square feet, or 3.86 acres, which is 25.5% of the total Project Area.

*Filename: Attachment F - PP16-00001 Plan Set 2017-10-23 1
Attachment G - PP16-00001 Plan Set 2017-10-23 3*

Impervious Limits

Maximum fraction impervious cover and explanation / statement of method(s) used:

The project area is in zones Single Family Estate (SF-E) and Single Family – Single Family Suburban (SF-S). In the SF-E zone, on residential tracts, up to 30% of the area is allowed to be impervious. In the SF-S zone, on residential tracts, up to 40% of the area is allowed to be impervious. The maximum allowed impervious areas in residential tracts plus other developable areas provides an upper bound of impervious area of 7.08 acres. Dividing this upper bound amount by the project area equals 46.77% maximum possible impervious.

Filename: Attachment E - Issaquah Zoning Official Map HMP

Existing Impervious Area

Existing impervious cover fraction and explanation / statement of method(s) used:

There are currently no improvements on the site other than social trails.

*Filename: Attachment Q - Forest Age 1946 Image
Attachment R – Forest Age 1936 Image
Attachment S – Picture1
Attachment T – Picture2*

Planned Project Activities

Description / statement of method(s) used:

As public property, the project site will be protected in perpetuity through a conservation easement, and Deed of Right. The City will also rezone the parcels to Community Facilities – Open Space which further protects the site form development. Any future development through the site would be for passive recreational use and would include backcountry trails and bridge crossings over creeks, to allow access to Cougar Mountain Wildland Park and Cougar Mountain State Park. The City has worked with Mountains to Sound Greenway to develop a conceptual trail plan that minimizes impacts to the site, yet

gets hikers to trail connections. The City will remove invasives found on the site, and will restore them with native plantings to further the health of the project site.

Filename: Attachment V – Harvey Manning Park Expansion Trails

CO-BENEFITS QUANTIFICATION DOCUMENTATION

Summarize co-benefit quantification and provide supporting documentation. CFC can provide co-benefits quantification for Project Operator for rainfall interception, air quality improvements, and energy savings.

In addition to carbon sequestration, the Harvey Manning Park Expansion Project will offer the following co-benefits as a result of its established tree canopy.

Filename: Attachment W – Harvey Manning Park CoBenefits Quantification

Ecosystem Services	Resource Units	Value
Rain Interception (m3/yr)	3,084.0	\$22,642.86
Air Quality (t/yr)	-0.35	\$16.20
CO2 avoided from energy savings	7.8	\$155.02
Cooling – Electricity (kWh/yr)	8,464	\$433.37
Heating – Natural Gas (kBtu/yr)	31,865	\$362.75
Grand Total (\$/yr)		\$23,610.19

Grand Total (\$/year) of Ecosystem Services: \$23,610.19

Over 40 years, avoided costs from Co-Benefits is \$944,407.65

Table 1. Tree Cover

	Deciduous Tree Cover	Coniferous Tree Cover	Total Tree Cover	Non-Tree Cover	Total Project Area
Percent (%)	89%	11%	100%	0%	100%
Area (sq miles)	0.021	0.003	0.024	0.000	0.02
Area (m2)	54,511	6,758	61,269	0	61,269
Area (acres)	13.47	1.67	15.14	0.00	15.14

Table 2. Co-Benefits per year with current tree canopy cover.

Ecosystem Services	Resource Unit Totals	Resource Unit/Acre Tree Canopy	Total Value (\$)	Value (\$)/Acre Tree Canopy
Rain Interception (m3/yr)	3,084.0	203.7	\$22,642.86	\$1,495.57
CO2 Avoided (t, \$20/t/yr)	7.8	0.5	\$155.02	\$10.24
Air Quality (t/yr)				
O3	0.1122	0.0074	\$47.82	\$3.16
NOx	0.0367	0.0024	\$15.66	\$1.03
PM10	0.0538	0.0036	\$40.73	\$2.69
Net VOCs	-0.5544	-0.0366	-\$88.01	\$(5.81)
Air Quality Total	-0.3517	-0.0232	\$16.20	\$1.07
Energy (kWh/yr & kBtu/yr)				
Cooling - Electricity	8,464	559	\$433.37	\$28.62
Heating - Natural Gas	31,865	2,105	\$362.75	\$23.96
Energy Total (\$/yr)			\$796.12	\$52.58
Grand Total (\$/yr)			\$23,610.19	\$1,559.46

MONITORING AND REPORTING (Section 7)

Throughout the Project Duration, the Project Operator must report on tree conditions across the Project Area. Monitoring reports are due every three years determined by the date of the verification report. For example, if the verification report is dated January 1, 2021, the first report will be due by January 1, 2024 and every three years thereafter for the duration of the project. Describe your plans for continuity of operation of this Carbon+ Project, including monitoring and reporting. If Project Operator plans to claim credits for future growth, describe methods that will be used to quantify future growth.

The City of Issaquah will own this property in perpetuity and will conduct the periodic monitoring reports every three years as required during the 40-year commitment period. The project site is part of the City's parks and open space system and will be maintained as protected open space. City staff visits the site periodically, to ensure forest health and any threats to forest health are monitored. Future growth for the 40-year commitment period will be ensured by protecting the forest health.

ATTESTATIONS

Complete and attach the following attestations: Attestation of No Double Counting of Credits and Attestation of No Net Harm. Provide any additional notes as relevant.

Filename: Attachment X - Attestation of No Net Harm

Attachment Y – Attestation of No Double Counting Credits

PROJECT OPERATOR SIGNATURE

Signed on 12/15/2021 in 2021, by Mary Lou Pauly, Mayor, for City of Issaquah.

DocuSigned by:

Mary Lou Pauly

CEFF8F862CD7408...

Signature

Mary Lou Pauly

Printed Name

425-837-3020

Phone

MaryLouP@IssaquahWA.gov

Email

ATTACHMENTS

Attachment A – Harvey Manning Property shapefiles
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