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Protected Critical Area Easement (Pcae)

**Fish & Wildlife
Habitat Conservation Area (HCA) Restoration and Management Plan**

**402 Burrows Lane
P37421**

Grantor:

Jack R. Moore
Shannon L. Moore

Grantee:

City of Sedro-Woolley

Legal Description of Parcel P37421:

SEDRO - CITY AREA, ACRES 2.48, THAT PORTION OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 24, TOWNSHIP 35 NORTH, RANGE 4 EAST, W.M., DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4; THENCE NORTH 264 FEET; THENCE WEST 363 FEET TO THE TRUE POINT OF BEGINNING; THENCE WEST 392 FEET; THENCE NORTH 275 FEET, MORE OR LESS, TO THE SOUTH LINE OF A TRACT OF LAND CONVEYED TO PAUL DALE JONES BY DEED RECORDED JUNE 27, 1940, UNDER AUDITOR'S FILE NO. 326888; THENCE EAST ALONG THE SOUTH LINE OF SAID PAUL DALE JONES TRACT A DISTANCE OF 392 FEET TO THE SOUTHEAST CORNER THEREOF; (SAID POINT ALSO BEING THE SOUTHWEST CORNER OF A TRACT CONVEYED TO TOM JOHNSON BY DEED RECORDED JUNE 24, 1948, UNDER AUDITOR'S FILE NO. 419771); THENCE SOUTH 275 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

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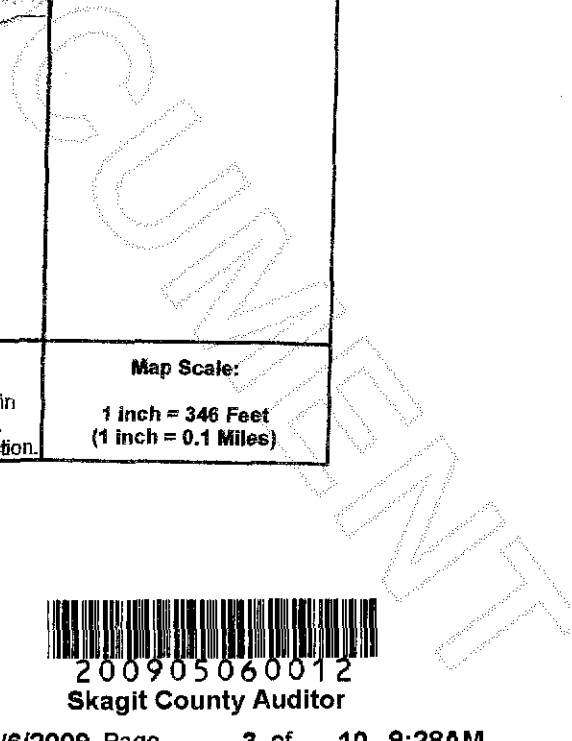
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1.1 Introduction

The proposed project is a 2-car residential garage. This mitigation plan addresses the impacts of development by restoring a severely degraded riparian buffer. The project is located at 402 Burrows Lane, Sedro-Woolley, WA 98284 and the parcel number is P37421.

Figure 2



1.2 Proposed Development Project and Description

The 24' x 24' (576 square feet) 2-car garage will be located on the opposite side of the existing house from Brickyard Creek. The mitigation proposed consists of the restoration of the Habitat Conservation Area (HCA) along a section of Brickyard Creek. The size of the planting area is 20' x 30' (600 square feet) along the western bank. This area will be placed in a Protected Critical Areas Easement (PCAE).

Brickyard Creek is a Type III salmon bearing stream located primarily within the city limits of Sedro-Woolley. It is a typical urban environment stream that has been relocated, filled in places, routed through culverts and storm water conveyances in many places along its route that eventually has its water flow into the Skagit River. The creek is severely choked along its banks with invasive Reed canary grass and blackberry.

The City of Sedro-Woolley identifies Brickyard Creek has an ongoing program to restore and rehabilitate Brickyard Creek where and whenever possible.



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The Sedro-Woolley Municipal Code 17.65.020 (C), names Brickyard Creek as a riparian corridor and that *"riparian corridors serve many important ecological and environmental functions and help to protect public health, safety and welfare by providing flood storage and conveyance, erosion control, fish and shellfish production, fish and wildlife habitat, recreation, water quality protection, water storage, education, scientific research and other public benefits. It is the purpose of this chapter to protect these functions to prevent the continual loss of wetlands and riparian corridors, and where practical to enhance or restore wetlands and riparian corridors functions and values."*

The restoration will include removal of invasive plants from the riparian buffer and replanting native species. It will run upland from the ordinary high-water mark an average of 20 feet. Given the pre-developed condition of the creek and its banks and the location of the proposed garage in proximity to the existing structures and creek, the development that includes the proposed restoration will result in no net loss of Habitat Conservation Area (HCA) riparian functional values.

The area contains a steep, modified stream bank (1:1 rise/run) and flat upland throughout that is currently maintained as a mowed grass yard for the adjacent residence. The restoration site will be located per the planting plan depicted in Appendices A and B.

1.3 Riparian Functions and Values of Brickyard Creek

The Brickyard Creek Riparian Zone is severely degraded in the restoration area. It contains Himalayan Blackberry and contains little native vegetation. The existing yard of the adjacent residence is mowed and maintained to the edge of the creek on its western and eastern banks.

There are five basic riparian zone functions that influence waterway and near waterway habitat quality. These are:

1. Large woody debris, for creating habitat structure
2. Shade, for maintaining cool water temperatures that influence available oxygen.
3. Bank integrity, for creating habitat quality and water quality by reducing bank erosion and creating habitat structure for hiding.
4. Runoff filtration, for filtering sediments and/or contaminants in surface water.
5. Wildlife habitat, functional habitat for riparian-dependant species including areas for protection, nesting and feeding.

Of these five, only two are currently moderately functioning. The existing grass on the bank of the stream and in the maintained yard provides some bank integrity and runoff filtration.



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1.4 Vegetation Restoration, Plant Schedules and Planting Plan

The attached design (Appendices A and B) is a landscape plan of the proposed restoration site on Brickyard Creek. The approximate locations, density and type of plants are noted. Herbicides may be used to assist in the removal of invasive species in the project area. WSDOT has certified the commercial product *Rodeo* for use in wetland and stream areas as safe for fish.

All shrubs shall be a minimum of two (2) years old, are to be bare-root plants and shall be planted at five (5) feet on center. All trees shall be at least two (2) feet tall and shall be planted at ten (10) feet on center. Actual spacing may vary depending on the location, type of plants installed and the final design of the landscape plan. Plant stock shall be procured from a local native plant nursery.

Below is a list of plants, size and quantities recommended for this site. The final species, sizes and quantity may vary depending on availability.

Table 1: Proposed Species, Sizes and Quantity

Type	Symbol	Common Name	Scientific Name	Size	Quant.
Tree	WH	Western Hemlock	Tsuga heterophylla	24"	1
Tree	DF	Douglas Fir	Psuedotsuga menziesii	24"	2
Tree	VM	Vine Maple	Acer circinatum	18"	3
Shrub	O	Oceanspray	Holodiscus discolor	18"	5
Shrub	EB	Red elderberry	Smabucus racemosa	18"	5
Shrub	SW	Snowberry	Sumphoricarpos albus	18"	5
				Total:	21

1.5 Recording and Permanent Marking of the Protected Critical Area

The site shall be placed into a Protected Critical Area Easement (PCAE) to ensure protection of the site into perpetuity. This PCAE shall be recorded with the Skagit County Auditor. The planting site will have a cedar split rail fence on the north, west and south sides.

1.6 Site Specific Goals, Objectives and Performance Standards

A performance standard of 95% survival after the second year post-planting shall be deemed a success. If greater than 5% of the installed plants die, they shall be replaced. Natural recruitment of native species may be counted toward the percent survival ratio. The plant species list above shall constitute the minimum number of species and minimum species diversity.



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A minimum of 85% of the shrubs must survive after five years and cover 35% of the total restoration area. A minimum of 85% of the trees must survive after five years and cover 20% of the total restoration area.

The restoration area shall have a program of bi-yearly inspection and control of invasive/non-native species for a period of five years. To insure that invasive species do not out-compete the newly planted trees and shrubs, invasive species shall not be allowed to cover an area greater than 5% of the total restoration area.

1.7. Monitoring and Maintenance

Monitoring shall occur during and after construction, during planting and periodically as during the monitoring period in years 1, 2, 3 and 5. Monitoring is required to assure the success of the restoration planting site.

A written report will be prepared annually during the 5-year monitoring period. Monitoring reports will be submitted to the City of Sedro-Woolley by December 31st of each year. Maintenance options and suggested requirements to maintain the site will be given in the monitoring report.

1.8 Summary

This restoration plan for a 600 square feet area along Brickyard Creek and the resulting Protected Critical Areas Easement (PCAE) is designed to improve the fish and wildlife habitat for this degraded section of stream buffer and increase Habitat Conservation Area (HCA) riparian functional values, thereby offsetting any potential impacts of locating a residential 2-car garage within the buffer area on the opposite side of the existing house.

Figure 3



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1.9 References

Hitchcock, C.L. and A. Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press. Seattle, WA. 730 p.

Pojar, J. and A. MacKinnon. 1994. Plants of the Pacific Northwest Coast; Washington, Oregon, British Columbia and Alaska. Lone Pine Publishing, Redmond, WA. 528 p.

WAC (Washington Administrative Code). 2005. WAC 222-16-031 Interim water typing system. Available online.

WA ST DNR (Dept. of Natural Resources). 2005. The Natural Heritage Information System. Available online.

Skagit County DNR Stream Type Map

City of Sedro-Woolley Municipal Code chapter 17.65

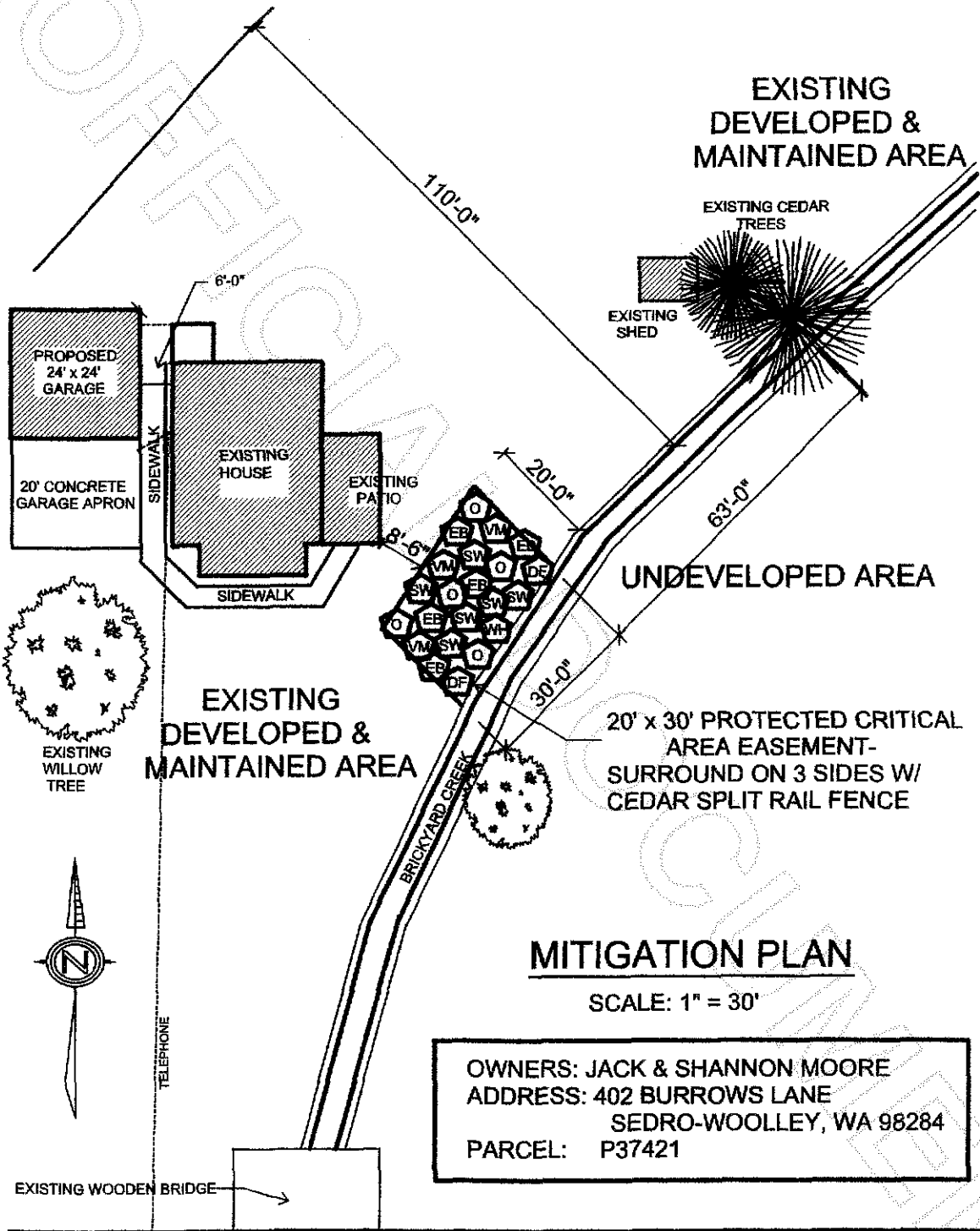
1.10 Appendices

Appendix A: Planting Plan

Appendix B: Enlarged view



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