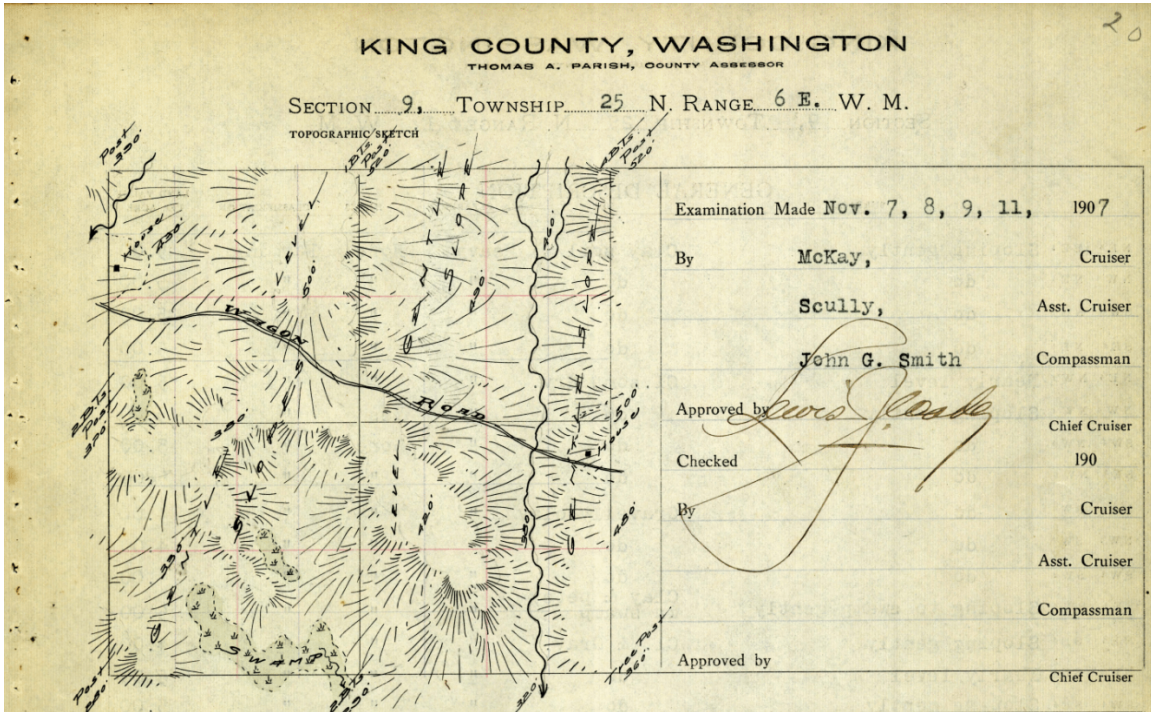


Mitigation Report

Parcel 8807810720



Source: Timber Cruising Records, 1906

Prepared for:

Will McNeil

August 28, 2024

Revised 12/19/24



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Introduction

This report presents a mitigation proposal for anticipated impacts on parcel 8807810720.

The parcel, which is 0.23 acres, is zoned RA-5 and situated in a residential area in unincorporated King County, east of Redmond. It is one of the remaining undeveloped lots in Union Hill Heights #4, a subdivision created in the late 1960's. The site location is provided in Figure 1.

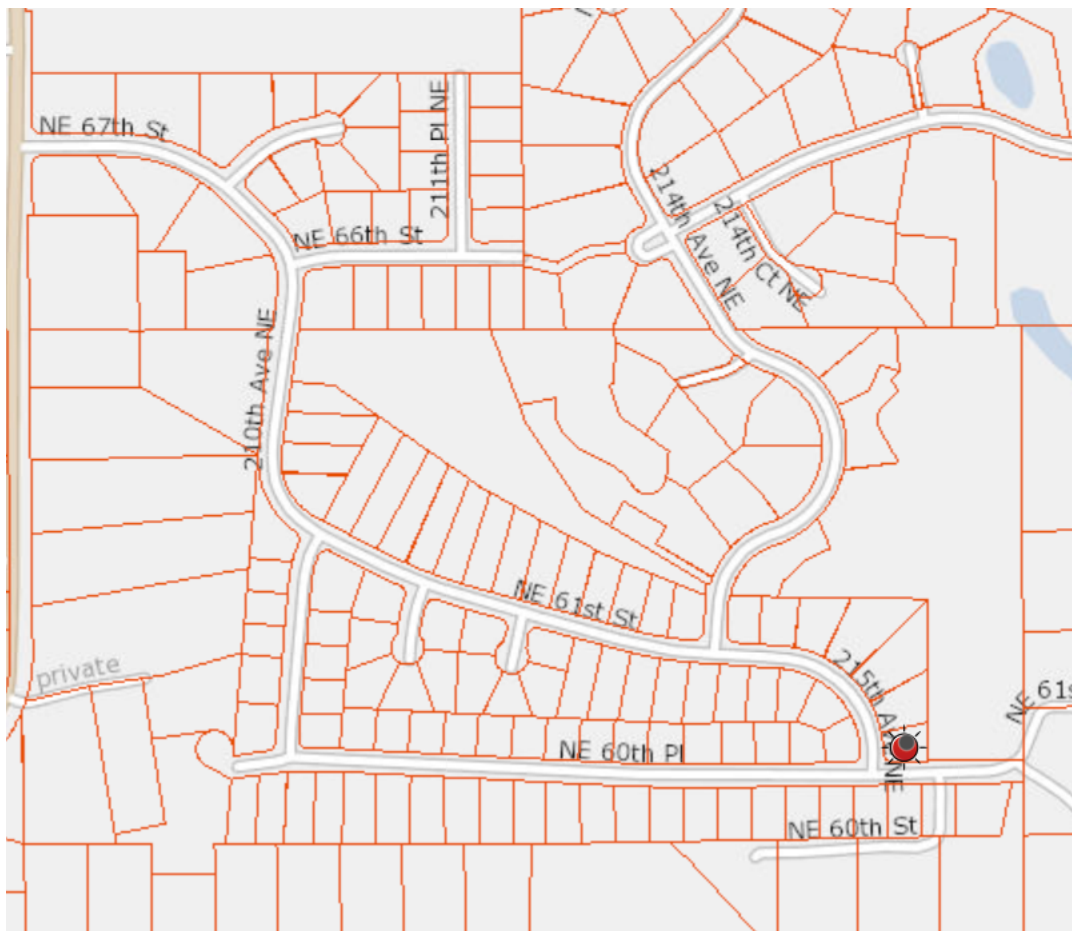


Figure 1. Site location.

The owner intends to construct a single family home on the parcel. The site is severely constrained by the buffer from an offsite wetland. The wetland boundary and rating have been reviewed under CADS22-0122. Existing conditions, impacts and proposed mitigation are discussed in this report.

Existing Conditions

No wetlands are present on the parcel. This site is dominated by an upland forest, with big-leaf maple (*Acer macrophyllum*), Douglas fir (*Pseudotsuga menziesii*), and red alder (*Alnus rubra*) occurring commonly. Understory species include Oregon grape (*Berberis aquilinum*), Indian plum (*Oemlaria cerasiformis*), vine maple (*Acer circinatum*), and sword fern (*Polystichum munitum*). The western portion of the site is dominated by Armenian blackberry (*Rubus armeniacus*). Photos of the site are provided in Figure

Soils on the site are mapped by the Natural Resources Conservation Service (NRCS) as Alderwood gravelly sandy loam. This is not considered a hydric soil. However, NRCS mapping may not be accurate at the parcel level; it is always possible for inclusions of hydric soils to be present and unmapped.

The wetland is a depressional forested and scrub shrub wetland. The majority of the wetland appears to be scrub shrub, dominated by spirea (*Spiraea douglassii*) and willow (*Salix spp.*). A forest community surrounds the more open shrub area. The wetland holds standing water seasonally. It was rated and determined to be Category III with 6 habitat points. This results in a 110-foot buffer.



Figure 2. Onsite buffer.



Figure 3. Onsite buffer dominated by blackberry.

Wildlife Habitat

Wildlife habitat onsite is limited by the small size of the parcel, proximity to roads and developed parcels, and the presence of a dense community dominated by Himalayan blackberry. A few mature trees are present. Habitat is impaired by the dense Himalayan blackberry community. This invasive species provides little in the way of habitat for native wildlife. The site may be used by small mammals, birds, and amphibians.

The offsite wetland provides a variety of habitat types, including forest, scrub shrub, and open water. Wildlife using this offsite wetland may be incidental visitors to the subject parcel. On a landscape level, habitat is highly fragmented in the vicinity of the site. While there may be incidental use by highly mobile species using the nearby forested areas, the subject property does not provide substantial habitat for breeding or foraging on its own. Within exurban environs, vegetated corridors are used for travel between habitat patches by most terrestrial species. The subject property is adjacent to, though not part of such a corridor.

Impact Assessment

Impacts are expected to result from construction of a new house, driveway, drainfield, and reserve drainfield. here is no way to access a building site without crossing wetland and buffer.

Table 1 summarizes anticipated impacts.

Table 1. Summary of Impacts

Item	Buffer Impact (s.f.)
House	1180
BSBL	1970
Drainfield & reserve drainfield	2408
Total	5558

Impacts to wildlife use are expected to be minor, given the size of the site and developed surroundings.

Water quality and quantity functions may experience temporary impact during construction. However, overall, developing consistent with the King County Surface Water Design Manual should reduce long-term impacts. Temporary erosion control during construction should reduce opportunities for mobilized sediment to enter the wetland.

Per the drainfield design, trees in close proximity to the drainfield will be removed and stumps ground.

Regulatory Context

The buffer from the offsite wetland is required to have undisturbed buffers of 110 feet, which precludes development of a residence. The mechanism to reduce buffers is the Critical Areas Alteration Exception, which is addressed in King County Code 21A.24.070. The requirements for a non-linear alteration, such as this proposal, are provided in Table 2.

Table 2. Criteria for Critical Areas Alteration Exception

Criteria	Relationship to this Proposal
a. there is no feasible alternative to the development proposal with less adverse impact on the critical area;	There is no area on the parcel that is fully outside of buffers, and setbacks.

Criteria	Relationship to this Proposal
b. the alteration is the minimum necessary to accommodate the development proposal;	The approximately 1,180 s.f. footprint home is relatively small for homes built in King County within RA zoning.
c. the approval does not require the modification of a critical area development standard established by this chapter;	Criterion met.
d. the development proposal does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest;	Criterion met.
e. for dwelling units, no more than five thousand square feet or ten percent of the site, whichever is greater, may be disturbed by structures, building setbacks or other land alteration, including grading, utility installations and landscaping, but not including the area used for a driveway or for an on-site sewage disposal system. When the site disturbance is within a critical area buffer, the building setback line shall be measured from the building footprint to the edge of the approved site disturbance;	House plus BSBL is 3,150 s.f. Meets criterion.
f. to the maximum extent practical, access is located to have the least adverse impact on the critical area and critical area buffer;	Access is located in the area that has already been disturbed. No alternative would have less impact.
g. the critical area is not used as a salmonid spawning area; and	Criterion met. No spawning areas on or near the proposed development.
h. the director may approve an alteration in a category II, III and IV wetland for development of a public school facility.	N/A

Mitigation sequencing

Mitigation sequencing involves taking steps to avoid, minimize, and compensate for impacts, in order, as required in KCC 21A.24.125. Sequencing is addressed in Table 3.

Table 3. Mitigation sequencing.

Criteria	Comment
1. Avoiding the impact or hazard by not taking a certain action;	Not possible to avoid impact to the buffer and build to the allowed zoning.
2. Minimizing the impact or hazard by:	
a. limiting the degree or magnitude of the action with appropriate technology; or	The house has been designed to reduce footprint size.
b. taking affirmative steps, such as project redesign, relocation or timing;	No redesign, relocation, or timing is proposed.
3. Rectifying the impact to critical areas by repairing, rehabilitating or restoring the affected critical area or its buffer;	Very little area onsite to restore or enhance buffer. Offsite mitigation proposed.
4. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods;	Not applicable.
5. Reducing or eliminating the impact or hazard over time by preservation or maintenance operations during the life of the development proposal or alteration;	Not applicable.
6. Compensating for the adverse impact by enhancing critical areas and their buffers or creating substitute critical areas and their buffers; and	Insufficient area onsite to enhance buffer.
7. Monitoring the impact, hazard or success of required mitigation and taking remedial action.	Not applicable.

Mitigation Proposal

Because there is not sufficient area onsite that is contiguous with the wetland buffer to provide meaningful mitigation, offsite mitigation is proposed. By purchasing credits from the Keller Farm Mitigation bank, a meaningful contribution to wetland functions can be made. For a buffer impact of 5,558 square feet at a 2:1 ratio (of offsite mitigation), 11,116 s.f. of credit would be purchased.

The Keller Farm is a 75-acre project that has been approved by the Corps of Engineers and the Department of Ecology, also in WRIA 8. The Keller project involves re-establishment, restoration and enhancement of wetlands, establishment of off-channel rearing and refuge areas, re-establishment floodplain, and establishment of buffers.

Conclusions

One wetland is present offsite to the east. The wetland has been confirmed by King County to be Category III with 110-foot buffers.

Unavoidable impacts resulting from developing the parcel are proposed to be mitigated by purchasing credits from the offsite wetland mitigation bank at Keller Farm at a 2:1 ratio. Consolidating the mitigation at a large, complex wetland system will provide greater benefit than planting a few trees and shrubs in a developed neighborhood.

The information provided in this report represents my best professional judgment regarding site conditions and code interpretation. However, King County staff is responsible for verifying the determinations offered in this report. Wetland mitigation can be a somewhat subjective process, since these are natural systems that are not always easily classified into human-made categories, and it is difficult to rapidly quantify both loss and future anticipated function. Human alteration, weather, and varying professional opinions may affect the location of wetland/stream boundaries and ratings, as well as mitigation proposals. The information provided in this report is the result of best-professional judgment and subject to modification until reviewed and approved by the governing jurisdiction.



Department of Local Services
Permitting Division

Residential Site Plan Template
11" x 17"

For Permitting Use

Received Date _____

Max. Impervious Surface Allowed _____

Max. Bldg. Height Allowed _____

Min. Bldg. setback from Street _____

Min. Garage setback from Street _____

Min. Bldg. setback from Interior _____

Signature _____

Date _____

Building Approval

Signature _____

Date _____

Engineering / Drainage Approval

Signature _____

Date _____

Critical Areas Approval

Signature _____

Date _____

Clearing / Grading Approval

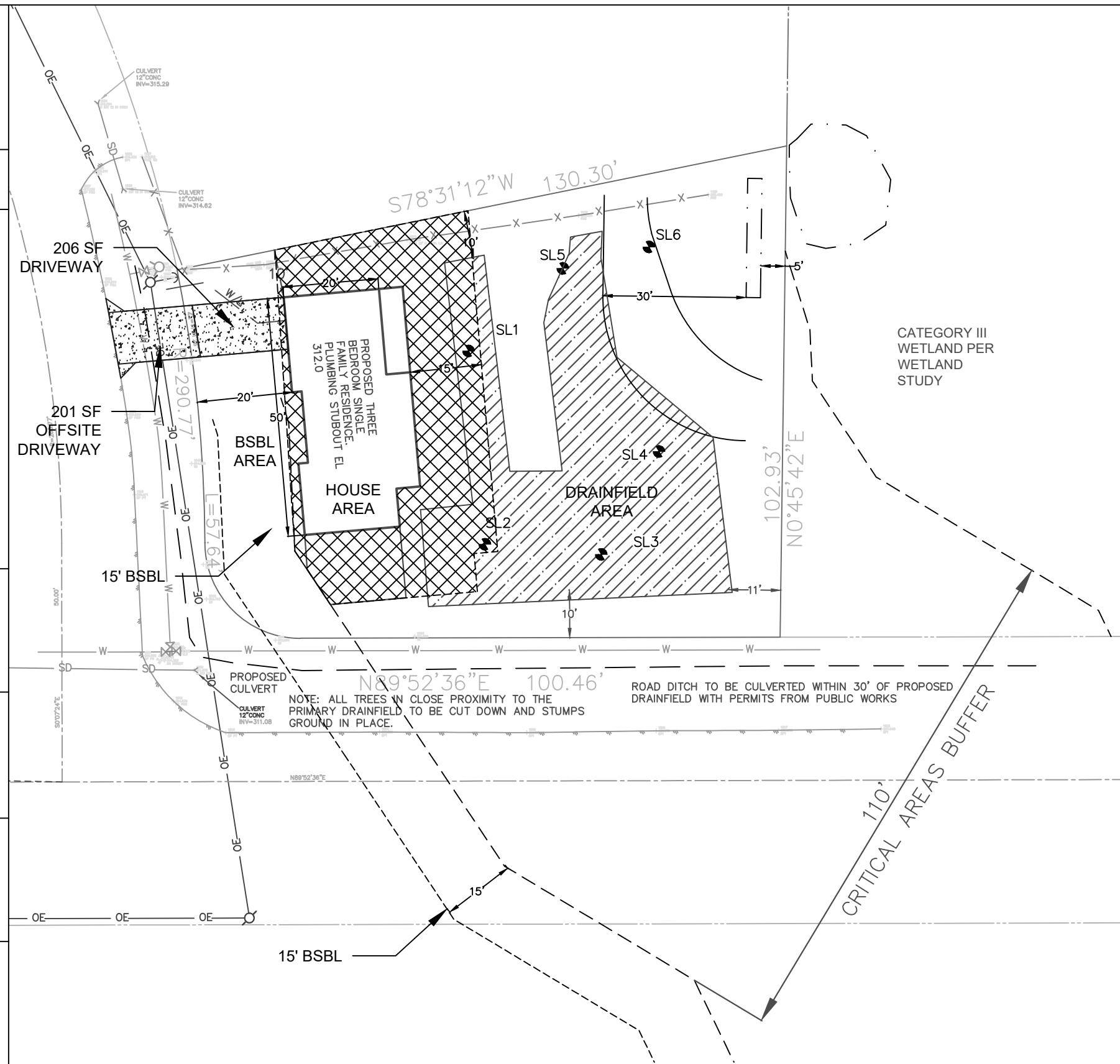
Signature _____

Date _____






Fire Approval

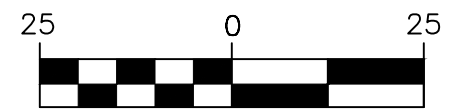
Signature _____

Date _____



PLAN LEGEND

-  IMPACT OF HOUSE 1180 S.F.
-  IMPACT OF DRAINFIELD 2408 S.F.
-  IMPACT OF BSBL 1970 S.F.
-  STANDARD WETLAND BUFFER
-  15' BSBL



SCALE: 1" = 25'

Permit Number _____ Parcel Number #880781-0720 Client Name Will McNeil Site Address _____

Engineering Scale: 1" = 25'

Sheet 1 of 1