HABITAT TECHNOLOGIES

September 18, 2013
REVISED October 2, 2013

Avenue 55 LLC
@ Mr. Drew Zaborowski, Development Associated
1420 – 5th Avenue, Suite 2650
Seattle, Washington 98101

RE: HABITAT MANAGEMENT PLAN
Parcel 0420114072
2719 West Valley Highway, City of Sumner

Dear Mr. Zaborowski,

As we have discussed, Avenue 55 LLC is proposing the commercial development of an existing vacant property located between West Valley Highway and SR167 within the northwestern portion of the City of Sumner, Pierce County, Washington. The project site is composed of a single existing parcel (Parcel 0420114072) totally approximately 6.6 acres, and located at 2719 West Valley Highway (part of Section 12, Township 20N, Range 4E, W.M.) (Figure 1).

SITE DESCRIPTION

The project site exhibited a somewhat gentle slope from west to east and had been historically managed for the production of agricultural crops for several decades. The project site was leveled and filled in or around 2002 in preparation for commercial/industrial development consistent with the existing City of Sumner Comprehensive Plans and land use zoning. This preparation action included the construction of a stormwater pond facility along the eastern boundary of the project site.

The property is located within the Lower White River Valley of the Puyallup – White River Watershed and bound on the north and south by existing commercial/industrial development, on the west by West Valley Highway, and on the east by Jovita Creek (Sotain Creek WRIA#10-0032) and the SR167 Corridor. The property is identified within the City of Sumner Comprehensive Plan for commercial/industrial utilization along the SR 167 Corridor.

Directions to Project Site: From SR167 exit onto 24th Street East and continue westbound on 24th Street East to the intersection with West Valley Highway. Turn south onto West Valley Highway and continue to the project site located on the eastern side of West Valley Highway and south of the entry ramp to southbound SR167.

wetlands, streams, fisheries, wildlife – mitigation and permitting solutions 13101
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voice 253-845-5119 fax 253-841-1942 habitattech@qwestoffice.net

BACKGROUND INFORMATION

NATIONAL WETLAND INVENTORY

The National Wetland Inventory (NWI) mapping completed by the U.S. Fish and Wildlife Service was reviewed as a part of this assessment (Figure 2). This mapping resource identifies a wetland area within the southeastern corner and along the eastern edge of the project site. Additional wetland areas were identified within a commercial/industrial development offsite to the south and along the eastern side of the SR167 Corridor.

STATE OF WASHINGTON PRIORITY HABITATS AND SPECIES

The State of Washington Priority Habitats and Species (PHS) Mapping was reviewed as a part of this assessment (Figure 3). This mapping resource identified wetland areas throughout and adjacent to the project site. This mapping resource also identified the presence of waterfowl concentrations associated with these wetland areas.

STATE OF WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

The State of Washington Department of Fish and Wildlife (WDFW) mapping was reviewed as a part of this assessment (Figure 4. This mapping resource identified a stream (Jovita Creek/Sotain Creek WRIA#10-0032) directly east of the project site. This mapping resource also identified the presence of coho salmon (*Oncorhynchus kisutch*), fall chum salmon (*Oncorhynchus keta*), and winter steelhead (*Oncorhynchus mykiss*) within this stream.

STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

The State of Washington Department of Natural Resources (WDNR) mapping was reviewed as a part of this assessment (Figure 5). This mapping resource identified Type A Wetland areas within and adjacent to the project site. This mapping resource also identified a stream to the east of the eastern edge of the project site. This stream was identified as a WDRN Type F Water (fish bearing).

CITY OF SUMNER MAPPING

The City of Sumner inventory mapping was reviewed as a part of this assessment. The updated version of this mapping resource did not identify any wetlands within the project site (Figure 6a). Wetland areas were identified offsite to the south and east of the project site. This mapping identified also identified Sotain Creek along the eastern boundary of the project site (Figure 6b). Sotain Creek was identified as a City of Sumner Type III Stream.

WASHINGTON STATE NATURAL HERITAGE PROGRAM

The Washington State Natural Heritage Program was reviewed as a part of this assessment. This resource did not identify any high quality, undisturbed wetland or a wetland that supports state Threatened, Endangered, or Sensitive plant species within the Section/Township/Range of the project site.

PRIOR SITE ASSESSMENTS

Wetland delineation assessments have been completed for the project site by AJ Bredberg Associates and by Harbor Environmental. Both of these assessments identified that the majority of the project site did not exhibit wetland characteristics. The recently completed Harbor Environmental wetland assessment identified a wetland directly east of the eastern boundary of the project site – east of the constructed onsite stormwater pond facility – and the Jovita Creek/Sotain Creek Corridor directly east of the eastern boundary of the project site. The identified wetland was further identified to meet the criteria for designation as a City of Sumner Category III Wetland.

ONSITE ANALYSIS

CRITERIA FOR FISH AND WILDLIFE HABITATS AREAS

Fish and wildlife habitat areas are defined by the City of Sumner as those areas identified as being of critical importance to maintenance of fish, wildlife, or plant species, including (16.56.050):

A. Areas with which federally or state-listed endangered, threatened, or sensitive species of fish, wildlife, or plants have a primary association:
B. Areas with habitats and species of local importance, including the following:
    1. Areas with which state-listed monitor or candidate species or federally listed candidate species have a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term;
    2. Special habitat areas which may provide specific habitats which certain animals and plants require such as breeding habitat, winter range, and movement corridors;
C. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and wildlife habitat;
D. Waters of the state, including all water bodies classified by the Washington State Department of Natural Resources water typing classification system as detailed in WAC 222-16-031;
E. State natural area preserves and natural resource conservation areas.

Fish and wildlife habitat areas also include wetlands. Wetlands are transitional areas between aquatic and upland habitats. In general terms, wetlands are lands where the extent and duration of saturation with water is the primary factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface (Cowardin, et al., 1979). Wetlands are defined as ponds of 20 acres or less, including their submerged aquatic beds, and those lands defined as wetland under the Federal Clean Water Act, 33 USC 1251 et seq., and rules promulgated pursuant thereto and shall be those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturate soil conditions.

STUDY METHODS

Habitat Technologies completed a series of onsite assessment during August and early September 2013. In addition, Habitat Technologies has completed a number of similar assessments for adjacent parcels over the past several years and a variety of critical area assessments within the Jovita Creek/Sotain Creek Corridor. Staff at Habitat Technologies had also completed a number of stream corridor assessments along the Jovita Creek/Sotain Creek Corridor and the Lower White River dating back to 1979. Many of these assessments of the Whiter River and its tributaries are documented within unpublished quarterly and annual reports prepared by the Puyallup Nation Fisheries Management Division between 1979 and 1989.

The objective of the 2013 assessment was to characterize habitats within and immediately adjacent to the project site.

FIELD OBSERVATION

The project site was accessed via West Valley Highway which formed the western boundary of the project site. The entire project site had undergone prior land use manipulations which had initially focused on agricultural production and then more recently commercial/industrial development. The project site was vacant with a gentle west to east slope towards a constructed stormwater pond facility within the eastern portion of the project site. The properties to the north and south were dominated by existing, active commercial/industrial developments.

Onsite Vegetation

Vegetation within the majority of the project site appeared managed through mowing to control and establishment of invasive shrubs and weeds. The plant community appeared to have become established following prior land use actions and included a variety of typically erosion control grass species. Observed species included quackgrass (*Agropyron repens*), bentgrass (*Agropyron tenuis*), vernalgrass (*Anthoxanthum odoratum*), orchardgrass (*Dactylis glomerata*), fescue (*Festuca* spp.) velvet grass (*Holcus lanatus*), bluegrass (*Poa* spp.), reed canarygrass (*Phalaris*

arundinacea), softrush (*Juncus effuses*), bracken fern (*Pteridium aquilium*), yarrow (*Achillea lanulosa*), daisy (*Bellis* spp.), Canadian thistle (*Cirsium arvensis*), bull thistle (*Cirsium vulgare*), geranium (*Geranium* spp.), smooth cats ear (*Hypochaeris glabra*), pineapple weed (*Marricaria discoidea*), field mint (*Mentha arvensis*), plantain (*Plantago major*), buttercup (*Ranunculus repens*), dock (*Rumex crispus*), dandelion (*Taraxacum officinale*), clover (*Trifolium* spp.), speedwell (*Veronica scutellata*), Scots broom (Cyt*isus scoparius*), Himalayan blackberry (*Rubus procera*), and seedling black cottonwood (*Populus trichocarpa*).

The very eastern portion of the project site was dominated by reed canarygrass and appeared to include a prior created stormwater facility. Reed canarygrass also dominated the seasonally flooded area immediately east of the eastern boundary of the project site - adjacent to the offsite Jovita Creek/Sotain Creek Corridor.

Offsite Vegetation

The SR167 Corridor was located to the east of the project site. A perennial stream (Jovita Creek/Sotain Creek) and associated wetland was located within a defined channel along the western side of the roadway corridor – directly east of the project site. The vegetation along this channel was historically well managed through mowing and drainage maintenance dredging. This channel was dominated by reed canarygrass and a scattering of willows (*Salix* spp.) established along prior side-cast soil piles from prior drainage maintenance. North of the project site this channel included a number of black cottonwood trees. South of the project site the channel had been modified through the recent development of a stormwater facility associated with the SR167 Corridor and a stormwater facility associated with the property directly to the south. These two facilities had been planted with a variety of native trees and shrubs that included black cottonwood, red alder (*Alnus rubra*), Western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), Pacific willow (*Salix lasiandra*), Sitka willow (*Salix sitchensis*), red osier dogwood (*Cornus stolonifera*), black twinberry (*Lonicera involucrata*), rose (*Rosa* spp.), vine maple (*Acer circinatum*), and Indian plum (*Oemleria cerasiformis*).

The property directly to the south of the project site had also been landscaped with a variety of species as a part of the development of the existing commercial/industrial facility.

Hydrology Patterns

As a result of onsite and offsite land use actions onsite surface water was directed into a created stormwater facility within the eastern portion of the project site. Onsite sources of stormwater included seasonal rainfall from onsite and offsite. No defined channel sources of seasonal surface water were identified to enter the western or central portions of the project site.

A defined channel was identified directly east of the eastern boundary of the project site. Perennial flow patterns within this channel were from the north to the south and

continued to the south within a defined channel adjacent the SR167 roadway. Prior assessments of this channel (defined as Jovita Creek/Sotain Creek) have identified that the ordinary high water mark (OHWM) was located at the top of defined channel bank.

A depressional area was identified immediately east of the eastern portion of the project site. This depressional area was hydrologically connected to the adjacent channel and appeared to flood during periods of heavy seasonal runoff patterns. However, this depressional area was not identified as part of the active channel for the Jovita Creek/Sotain Creek Corridor.

Jovita Creek/Sotain Creek originates within the urbanized, western hillslope area of the Lower White River Valley generally to the northwest of the property. Upon reaching the valley floor Jovita Creek/Sotain Creek drains to the south within a series of excavated ditches generally along the western side of SR 167. South of the property Jovita Creek is conveyed via a large culvert under SR 167 and enters the Lower White River. The Lower White River is a tributary to the Puyallup River near the southwester boundary of the City of Sumner. The Puyallup River is a tributary to the Commencement Bay Area of South Puget Sound within the City of Tacoma. There are no documented, complete physical barriers for the upstream or downstream movement of aquatic organisms and fish between Jovita Creek/Sotain Creek adjacent to the project site and the White and Puyallup Rivers.

WETLAND AND DRAINAGE CORRIDOR DETERMINATION

Offsite Wetlands: As documented within the wetland delineation assessments completed by Harbor Environmental Review Services the majority of the project site does not exhibit all three of the established criteria for designation as “wetland” (see *Wetland Verification Report for Avenue 55*, dated September 25, 2013). However, this assessment did identified a wetland immediately east of the eastern portion of the project generally within a shallow depression dominated by reed canarygrass and adjacent to the Jovita Creek/Sotain Creek Corridor further offsite to the east. This offsite wetland was defined as a City of Sumner Type III Wetland.

An additional offsite wetland had been identified within the very eastern portion of the property directly to the north of the project site (see reference to findings documented by A.J. Bredberg within *Wetland Verification Report for Avenue 55*, dated September 25, 2013). This offsite wetland was defined as a City of Sumner Type III Wetland.

Offsite Drainage Corridor: No defined drainage corridors were identified within the project site. Onsite assessment did identify a defined surface water drainage corridor directly to the east of the eastern boundary of the project site. This surface water drainage corridor has been previously identified as the Jovita Creek/Sotain Creek and located within the SR167 Corridor. This creek was located within a well defined channel that had been modified by prior land use actions primarily associated with channel

creation through excavation and vegetation management through mowing and vegetation removal.

The ordinary high water mark (OHWM) for this creek corridor has been identified at the top of bank. The OHWM has been surveyed and made a part of the project site plan.

Jovita Creek/Sotain Creek is defined within the Washington Department of Natural Resources Water Type System as a Type F (fish bearing) Water. This creek is also identified by the City of Sumner as a Type III Stream (fish bearing).

FISH AND WILDLIFE OBSERVATIONS

The project site had been leveled and filled in preparation for commercial/industrial development consistent with the existing City of Sumner Comprehensive Plans and land use zoning. This preparation action included the construction of a stormwater pond facility along the eastern boundary of the project site. The project site was bound on the north and south by existing commercial/industrial development, on the west by West Valley Highway, and on the east by Jovita Creek/Sotain Creek and the SR167 Corridor. As such, onsite habitats were very limited.

Observations of onsite and adjacent species utilization of the project site were completed in August through early September 2013. In addition, the staff of Habitat Technologies has completed similar assessments for a variety of properties within the area of the project site since 1979. Avian species observed (directly or indirectly) onsite – or that may be present within the general area of the project site - included American crow (*Corvus brachynchos*), song sparrow (*Melospiza melodia*), house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*), rock dove (*Columbia livia*), violet green swallow (*Tachycineta thallassina*),tree swallow (*Tachycineta bicolor*), barn swallow (*Hirundo rustica*), house finch (*Carpodacus mexicanus*), bald eagle (*Haliaeetus leucocephalus*), American robin (*Turdus migratorius*), dark eyed junco (*Junco hyemalis*), red tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), merlin (*Falco columbarius*), barn owl (*Tyto alba*), common raven (*Corvus corax*), great blue heron (*Ardea herodias*), red winged blackbird (*Agelaius phoenisues*), Brewer's blackbird (*Euphagus cyanocephalus*), marsh wren (*Cistothorus palustirs*), rufous hummingbird (*Selasphorus rufus*), common yellowthroat (*Geothlypis trichas*), mourning dove (*Zenaida macroura*), Northern flicker (*Colaptes auratus*), black capped chickadee (*Parus atricapillus*), Steller's jay (*Cyanocitta stelleri*), purple finch (*Carpodacus purpureus*), American goldfinch (*Carduelis tristis*), common mallard (*Anas platyrhynchos*), American wigeon (Anas americana), teal (*Anas* spp.), Canada goose (*Branta canadensis*), common snipe (*Gallinago gallinago*), gull (*Larus* spp.), and belted kingfisher (*Ceryle alcyon*). The majority of these avian species would utilize the habitats along the Jovita Creek/Sotain Creek Corridor, the forested hillside habitats to the west, or offsite habitats.

Additional wildlife species within or adjacent to the project site would include coyote (*Canis latrans*), black tailed deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*),

opossum (*Didelphis virginianus*), skunk (*Mephitis mephitis*), eastern gray squirrel (*Sciurus carolinensis*), Townsend mole (*Scapanus townsendii*), eastern cottontail (*Sylvilagus floridanus*), deer mouse (*Peromyscus maniculatus*), house mouse (*Mus musculus*), voles (Microtus spp.), Norway rat (*Rattus norvegicus*), shrew (*Sorex* spp.), bats (*Myotis* spp.), beaver (*Castor Canadensis*), Pacific treefrog (*Hyla regilla*), red legged frog (*Rana aurora*), and common garter snake (*Thamnophis sirtalis*). As with the avian species, the majority of these additional wildlife species would utilize the habitats along the Jovita Creek/Sotain Creek Corridor, the forested hillside habitats to the west, or offsite habitats.

No direct population assessments of fish species within the Jovita Creek/Sotain Creek Corridor were completed as a part of this assessment. However, fish species within system have been documented to include a range of salmonid and non-salmonid species. Documented species within Jovita Creek/Sotain Creek include coho salmon (*Oncorhynchus kisutch*), chum salmon (*Oncorhynchus keta*), rainbow/steelhead trout (*Oncorhynchus mykiss*), cutthroat trout (*Oncorhynchus clarkii*), sculpin (*Cottus* spp.), sucker (*Catostomus* spp.), threespine stickleback (*Gasterosteus acluleatus*), and Western brook lamprey (*Lampetra richardsoni*) (Puyallup Nation unpublished, Berger 2009, Williams et al. 1975, Kerwin 1999).

MOVEMENT CORRIDORS

The project site was bounded by existing developments and does not provide a movement corridor for mammals. The Jovita Creek/Sotain Creek Corridor located offsite to the east of the project site provides a movement corridor (migratory and seasonal) for aquatic and terrestrial species. In addition, the project site is within the seasonal migratory pathways for a variety of passerine birds and waterfowl.

STATE PRIORITY SPECIES

"Priority Species" are defined by the State of Washington as species that require protective measures for their survival due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance.

Game Species: "Game species" are regulated by the State of Washington through recreational hunting bag limits, harvest seasons, and harvest area restrictions. Observed or documented "game species" within and adjacent to the project site included black tailed deer, mourning dove, common mallard, American widgeon, teal, Canada goose, coho salmon, chum salmon, rainbow/steelhead trout, and cutthroat trout.

State Candidate: State Candidate species are presently under review by the State of Washington Department of Fish and Wildlife (WDFW) for possible listing as endangered, threatened, or sensitive. A single State Candidate species - merlin (*Falco columbarius*) - may also utilize the project site.

State Monitored: State Monitored species are native to Washington but require habitat that has limited availability, are indicators of environmental quality, require further assessment, have unresolved taxonomy, may be competing with other species of concern, or have significant popular appeal. State Monitored species within or adjacent to the project site would include great blue heron, and Western brook lamprey.

State Sensitive: State Sensitive species are native to Washington, are vulnerable to decline, and are likely to become endangered or threatened throughout a significant portion of its range without cooperative management or removal of threats. State Sensitive species within or adjacent to the project site would include bald eagles. However, the project site does not provide critical habitats for this species.

State Threatened: State Threatened species are species native to the state of Washington and are likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats. No State Threatened species were observed to utilize the project site during the onsite assessment.

State Endangered: State Endangered species are species native to the state of Washington and are seriously threatened with extinction throughout all or a significant portion of its range within the state. No State Endangered species were observed to utilize the project site during the onsite assessment.

FEDERALLY LISTED SPECIES

The project site has not been documented to provide critical habitats for federally listed species. However, Jovita Creek/Sotain Creek has been documented to provide habitats for steelhead trout a federally listed threatened species. This creek has also been documented to provide habitats for coho salmon a federally listed species of concern. A second federally listed species of concern – bald eagle - has been documented to use the habitats associated with the White River Valley. As such, this species may occasional overfly the area of the project site. However, the project site was not observed to provide critical habitats for bald eagles.

Three federally listed salmonid fish species are documented within the White River System. Puget Sound Chinook salmon, Puget Sound Steelhead trout, and native char/bull trout are listed as “threatened” pursuant to Endangered Species Act (ESA). Two additional salmonid species – pink salmon and coho salmon – are noted as Essential Fish Habitat (EFH) species and listed pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267).

SPECIES	ESA STATUS	EFH LISTED	CRITICAL HABITAT PRESENT
Puget Sound Chinook salmon *Oncorhynchus tshawytscha*	Threatened	Yes	None onsite. Critical habitat present in White River System.
Puget Sound Steelhead trout *Oncorhynchus mykiss*	Threatened	-	None onsite. Critical habitat present in White River System.
Native char/bull trout *Salvelinus confluentus*	Threatened	-	None onsite. Critical habitat present in White River System.
Pink salmon *Oncorhynchus gorbuscha*	no	Yes	None onsite. Critical habitat present in White River System.
Coho salmon *Oncorhynchus kisutch*	Concern	Yes	None onsite. Critical habitat present in White River System.
Bald eagle *Haliaeetus leucocephalus*	Concern	-	None onsite. Critical habitat present in White River System.

SELECTED SITE DEVELOPMENT ACTION

The *Selected Site Development Action* proposes the re-development of the project site to construct a commercial/industrial facility consistent with the consistent with the existing City of Sumner Comprehensive Plans and land use zoning. Initial site development actions were completed in or around 2002 and included the leveling of the project site and the development of a stormwater facility in the eastern portion of the project site.

The *Selected Site Development Action* would **not** require any adverse impacts to the identified offsite Type III Wetlands or adverse impacts to the identified offsite Type III Stream. In addition, this development action would not require any adverse impacts to identified critical habitats associated with the offsite Type III Stream Corridor or downstream aquatic resources.

The *Selected Site Development Action* would establish water quality protections on the short-term during site re-development following Best Management Practices and both water quality and water quantity protections on the long-term using a designed stormwater facility consistent with City of Sumner Standards. The *Selected Site Development Action* would also establish a protective buffer composed of native trees and shrubs through the removal and control of the existing reed canarygrass and the planting of selected native species adjacent to the onsite wetland and the offsite stream corridor. The established native plant community would provide thermal protection for

aquatic habitats, a protective screen between upland uses and the established wetland and stream corridor, provide direct and indirect aquatic and terrestrial habitats, and provide support for the onsite and downstream aquatic food web.

ASSESSMENT OF PROJECT IMPACTS

As noted above the majority project site has been leveled in preparation for commercial/industrial development consistent with the City of Sumner Comprehensive Plan. With the exception of the identified offsite wetland and stream corridor along the eastern edge, the project site does not provide significant habitats suitable to fish or wildlife species.

DIRECT AND INDIRECT EFFECTS

The proposed site re-development would **not** be reasonably expected to create direct or indirect effects to identified habitats associated with critical fish or wildlife species as identified by the City of Sumner within 16.56.050, or species listed by federal or state agencies as endangered, threatened, or sensitive.

Flood Storage Volume: The majority of the project site has been leveled for selected site development. The proposed action would create a commercial/industrial facility, associated stormwater facilities, and a protective wetland and buffer tract.

Seasonal stormwater from new, onsite impervious surfaces shall be directed into onsite combined stormwater facilities sized to meet required standards identified within the Washington State Department of Ecology approved *City of Sumner Surface Water Design Manual*. As such, the development of this project requires matching stormwater flow durations for storms ranging from one-half of the 2-year up to the 50-year storm events, as well as matching the 2-year and 10-year peak storm event flows. The onsite combined stormwater facilities would discharge at the outer edge of the established buffer with water then entering the onsite wetland areas.

Water Quality: The developed portion of the project site shall be served by a combined stormwater collection, detention, and treatment system. As such, the proposed action shall provide water quality treatment as required to meet City of Sumner standards and would not be reasonably expected to adversely impact existing site conditions or result in a significant adverse impact to local water quality.

The selected site development actions would not alter the patterns of seasonal stormwater movement onto the project site from the tributary areas to the west and would not alter the movement of water through the established wetland, offsite stream corridor, and buffer areas. The onsite stormwater facilities would discharge at the outer edge of the established buffer with water then entering the onsite wetland areas.

The onsite stormwater facility would incorporate a “wet-pond” element. As defined in the Environmental Protection Agency’s wed-page for stormwater best management practices “wet ponds” (also noted as stormwater ponds, wet retention ponds, and wet extended detention ponds) are constructed facility basins that have a permanent pool of water throughout the year or at least throughout the wet season. These ponds treat incoming stormwater runoff by allowing waterborne particles to settle in the pool and through the uptake of nutrients by algae and other vegetation within the pond. Through settling and biological uptake of nutrients the “wet pond” has been widely used as stormwater “best management practices.”

A typical “wet pond” is composed of two cells. The first cell is generally defined as the “forebay” and is approximately 10% of the total volume of the facility. The purpose of the first cell is to settle out course sediment particles and assorted waterborne materials. These course particles and materials are captured in the first cell for more effective maintenance and to avoid significant dredge maintenance of the entire facility. The second cell (treatment cell) is approximately 90% of the total volume of the facility and is composed of a generally shallow, vegetated permanent pool. The purpose of the second cell is to allow stormwater to be withheld and spend an extended amount of time thus allow settling of small particles and nutrient uptake by vegetation.

As noted within the EPA web-site wet ponds are defined as among the most effective stormwater management practices at removing stormwater pollutants.

Critical Habitats: The majority of the project site has been leveled in preparation for commercial/industrial development and the majority of the project site does not provide critical habitats for fish or wildlife species. As such, the proposed site development action would not be reasonably expected to adversely impact critical habitats. In addition, the proposed site development action would establish a protective buffer composed of native trees and shrubs within the onsite stormwater facility along the identified Type III Wetland. The established native plant community would provide thermal protection for aquatic habitats, a protective screen between upland uses and the established wetland and stream corridor, provide direct and indirect aquatic and terrestrial habitats, and provide support for the onsite and downstream aquatic food web.

Light and Noise: The majority of the project site has been leveled in preparation for commercial/industrial development. The proposed action would create a commercial/industrial facility, associated stormwater facilities, and a protective wetland and buffer tract. The project site is also well served by local and regional transportation corridors. All construction related vehicle and equipment shall be maintained following Best Management Practices. As such, the proposed action would not be reasonably expected to adversely impact existing site conditions or result in a significant adverse impact to light and noise.

INTERDEPENDENT AND INTERRELATED EFFECTS

The selected site development action would **not** be reasonably expected to create interdependent or interrelated effects to identified habitats associated with critical fish or wildlife species as identified by the City of Sumner within 16.56.050.

CUMULATIVE EFFECTS

The selected site development action would create a commercial/industrial facility consistent with the City of Sumner Comprehensive Plan and is well served by existing public roadways and utilities. The selected site development action would increase land use density within the project site, would increase vehicle traffic within the area, would increase the potential need for police and fire emergency services, and would increase the need for utility services within the area of the project site. However, these increases have been outlined in the City of Sumner Comprehensive Plan and local planning outlines. Because of the onsite environmental protections and buffer establishment program to be implemented the selected site development action would **not** be reasonably expected to create cumulative effects to identified habitats associated with critical fish or wildlife species as identified by the City of Sumner within 16.56.050.

HABITAT MANAGEMENT PLAN

The implementation of the *Selected Site Development Action* and associated buffer establishment program avoids jeopardy to ESA and EFH listed species. In addition, the implementation of the *Selected Site Development Action* avoids would adversely impact other species listed by federal or state agencies or their critical habitats. The selected development does not appreciably increase the risks to the species' potential for survival or to the species' potential for recovery. The implementation of the selected site development action also avoids destruction or adverse modification of designated critical habitat for ESA and EFH listed species or other species listed by federal or state agencies or their critical habitats.

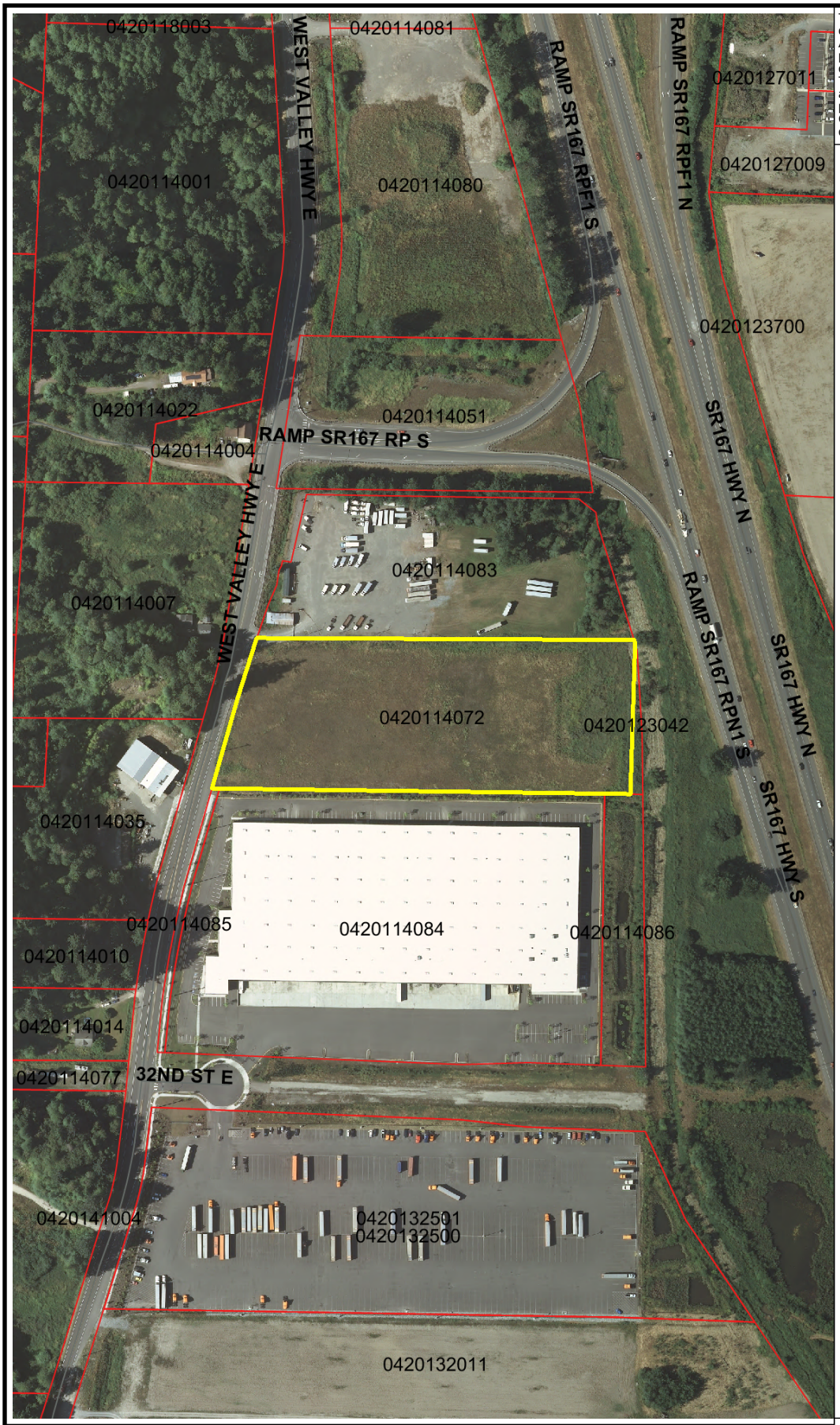
A primary element of the Habitat Management Plan focuses on the establishment of a protective buffer adjacent to the offsite Type III Wetland and stormwater facility (see *Wetland Verification Report for Avenue 55*, dated September 25, 2013). A protective buffer shall be established and planted within the eastern portion of the project site consistent with the City of Sumner Chapter 16. This buffer program includes the maintenance/removal of invasive species and monitoring to ensure the success of the program as defined by performance standards. The established native plant community within the buffer would provide thermal protection for aquatic habitats, would provide a protective screen between upland uses and the established wetland and stream corridor, would provide direct and indirect aquatic and terrestrial habitats, and would provide support for the onsite and downstream aquatic food web.

STANDARD OF CARE

This document has been completed by Habitat Technologies for use by Avenue 55 LLC. Prior to extensive site planning, this document should be reviewed and verified by the City of Sumner and potentially other resource and permitting agencies. Habitat Technologies has provided professional services that are in accordance with the degree of care and skill generally accepted in the nature of the work accomplished. No other warranties are expressed or implied. Habitat Technologies is not responsible for design costs incurred before this document is approved by the appropriate resource and permitting agencies.

Thomas D. Deming PWS
Habitat Technologies

FIGURES



The map features are approximate and are intended only to provide an indication of said feature. Additional areas that have not been mapped may be present. This is not a survey. The orthophotos and other data may not align. Pierce County and Habitat Technologies assume no liability for variations ascertained by actual survey. All data is expressly provided AS IS and WITH ALL FAULTS. Pierce County and Habitat Technologies make no warranty of fitness for a particular purpose.

Map Legend

- **Highlighted Tax Parcels**
- **Tax Parcels**
- **Roads**
- **County - 2011 - Ortho**

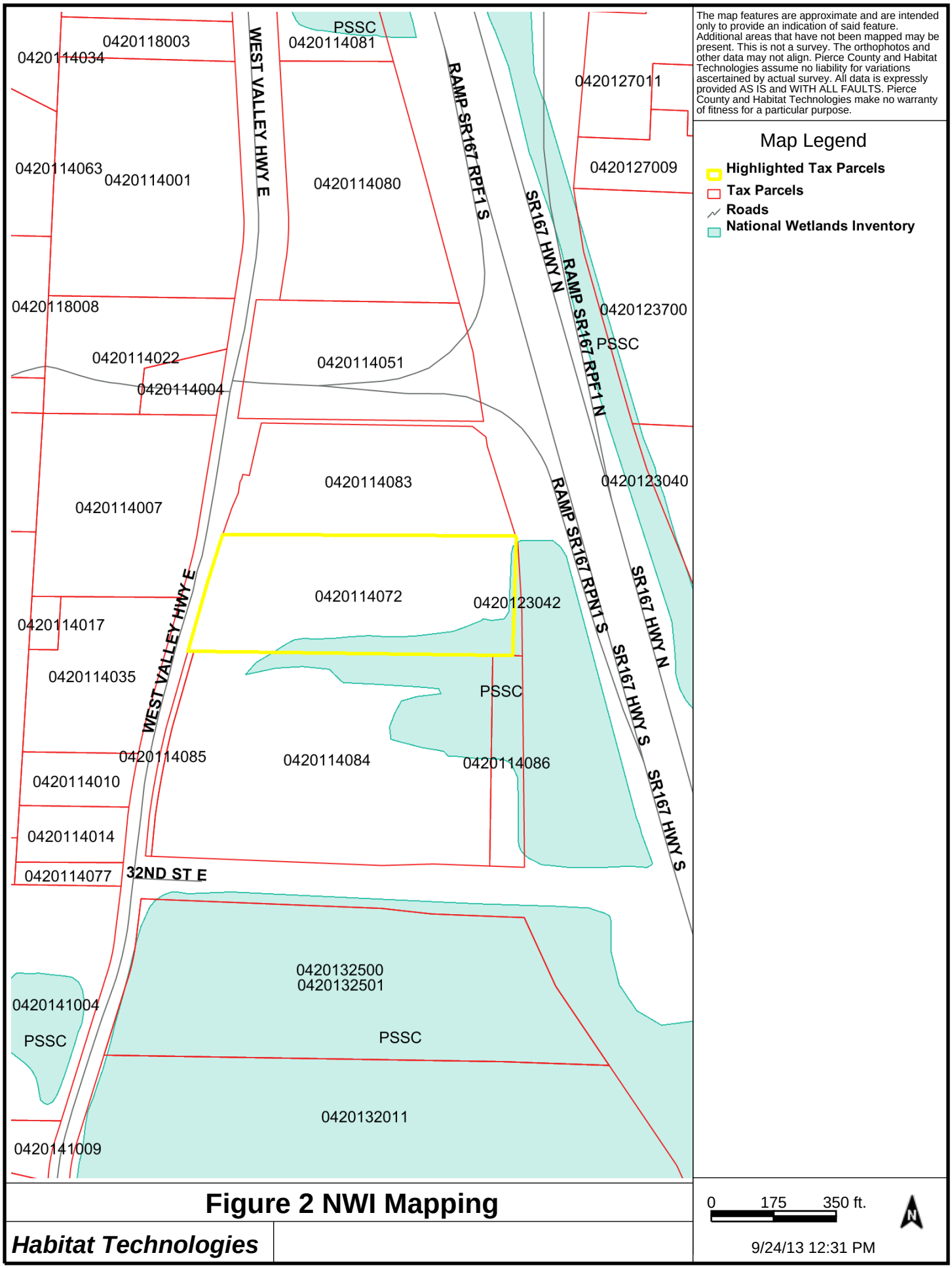
Figure 1 Site Vicinity

0 160 320 ft.

N

9/24/13 12:30 PM

Habitat Technologies



The map features are approximate and are intended only to provide an indication of said feature. Additional areas that have not been mapped may be present. This is not a survey. The orthophotos and other data may not align. Pierce County and Habitat Technologies assume no liability for variations ascertained by actual survey. All data is expressly provided AS IS and WITH ALL FAULTS. Pierce County and Habitat Technologies make no warranty of fitness for a particular purpose.

Map Legend

- **Highlighted Tax Parcels**
- **Tax Parcels**
- **Roads**
- **National Wetlands Inventory**

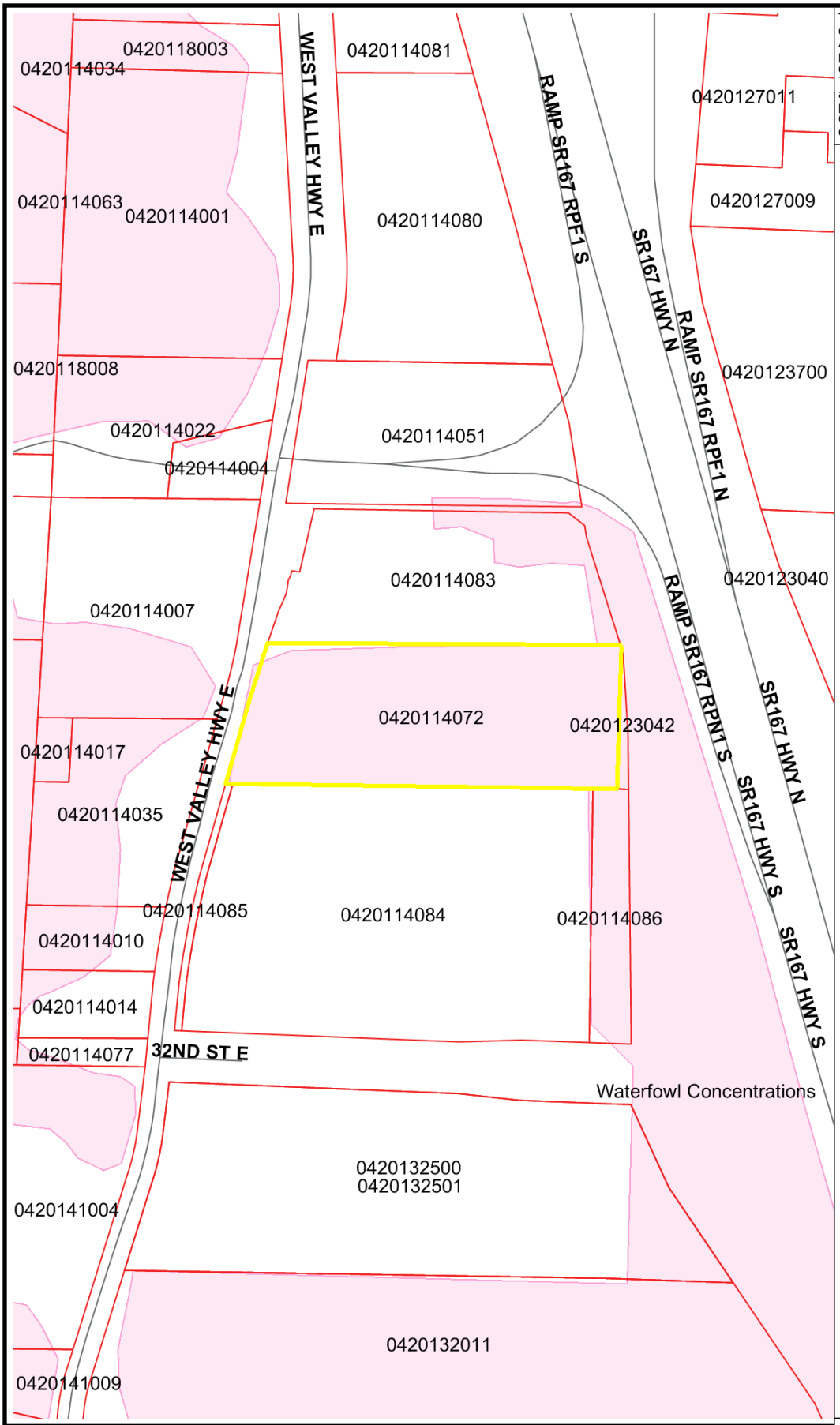
Figure 2 NWI Mapping

0 175 350 ft.

N

9/24/13 12:31 PM

Habitat Technologies



The map features are approximate and are intended only to provide an indication of said feature. Additional areas that have not been mapped may be present. This is not a survey. The orthophotos and other data may not align. Pierce County and Habitat Technologies assume no liability for variations ascertained by actual survey. All data is expressly provided AS IS and WITH ALL FAULTS. Pierce County and Habitat Technologies make no warranty of fitness for a particular purpose.

Map Legend

- **Highlighted Tax Parcels**
- **Tax Parcels**
- **Roads**
- **Priority Habitat/Species**

Figure 3 PHS Mapping

Habitat Technologies

0 175 350 ft.

9/24/13 12:32 PM

PLSS Townships
PLSS Sections
CITIES
Major Cities
Cities
Towns

RIVERS (1:24,000)
DOT Hwys
Interstate
US Hwys
State Routes

Spawning
Rearing
Presence - Documented
Presence - Historic

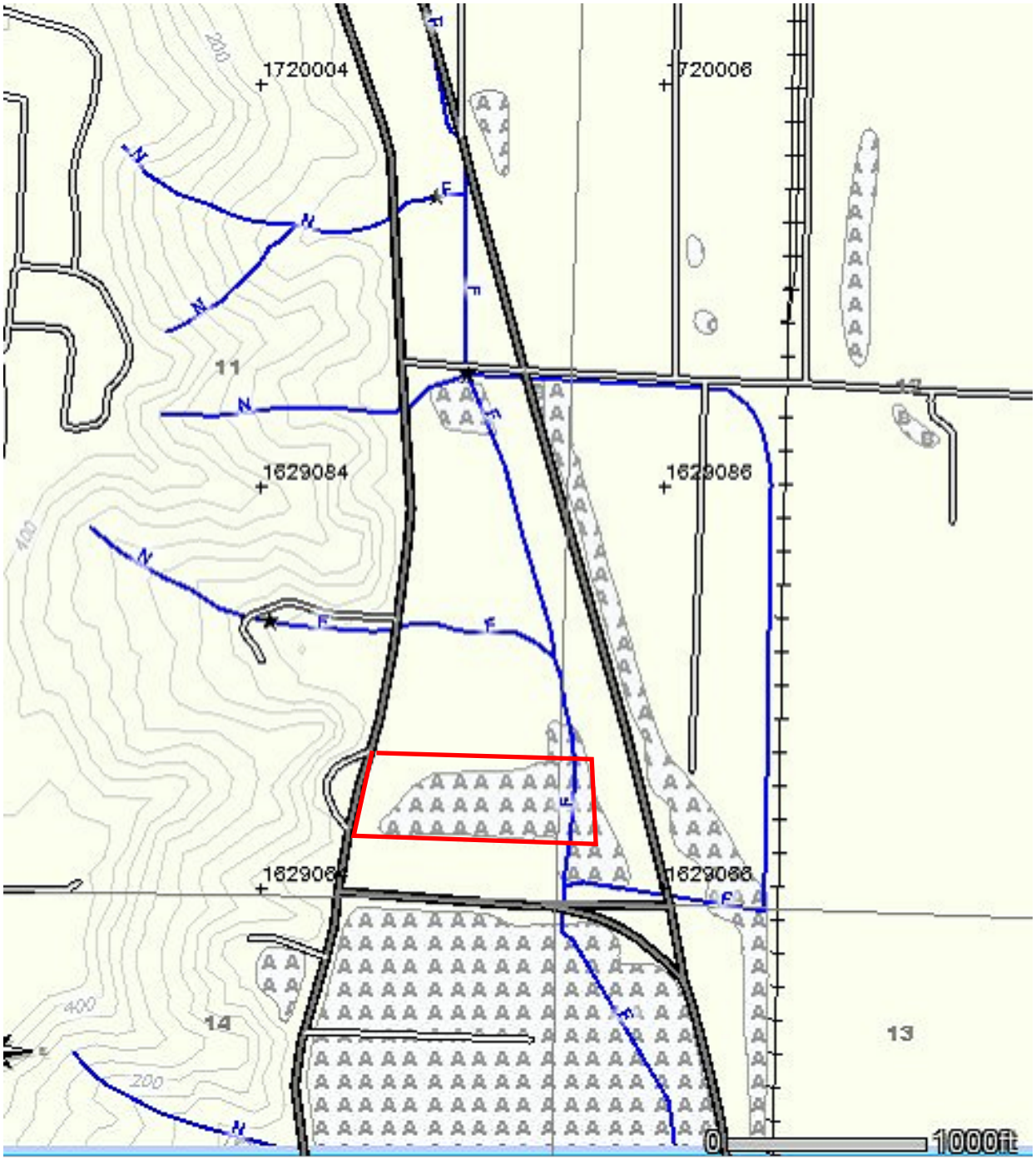
Presence - Presumed
Presence - Potential
Presence - Undetected
No Data
WATERBODIES (1:24,000)

HABITAT TECHNOLOGIES

Figure 4

WDFW Mapping

N
W
E
S



ELEVATION
Contours, 40' interval

STREAMS
Stream Water Type S, F, N
U, unknown
X, non-typed per WAC 222-16
Water Type Change

TRANSPORTATION
Paved Road
Unpaved Road / Surface Unknown
Abandoned Road (not on Activity map)
Orphaned Road (not on Activity map)
Trail
Railroad

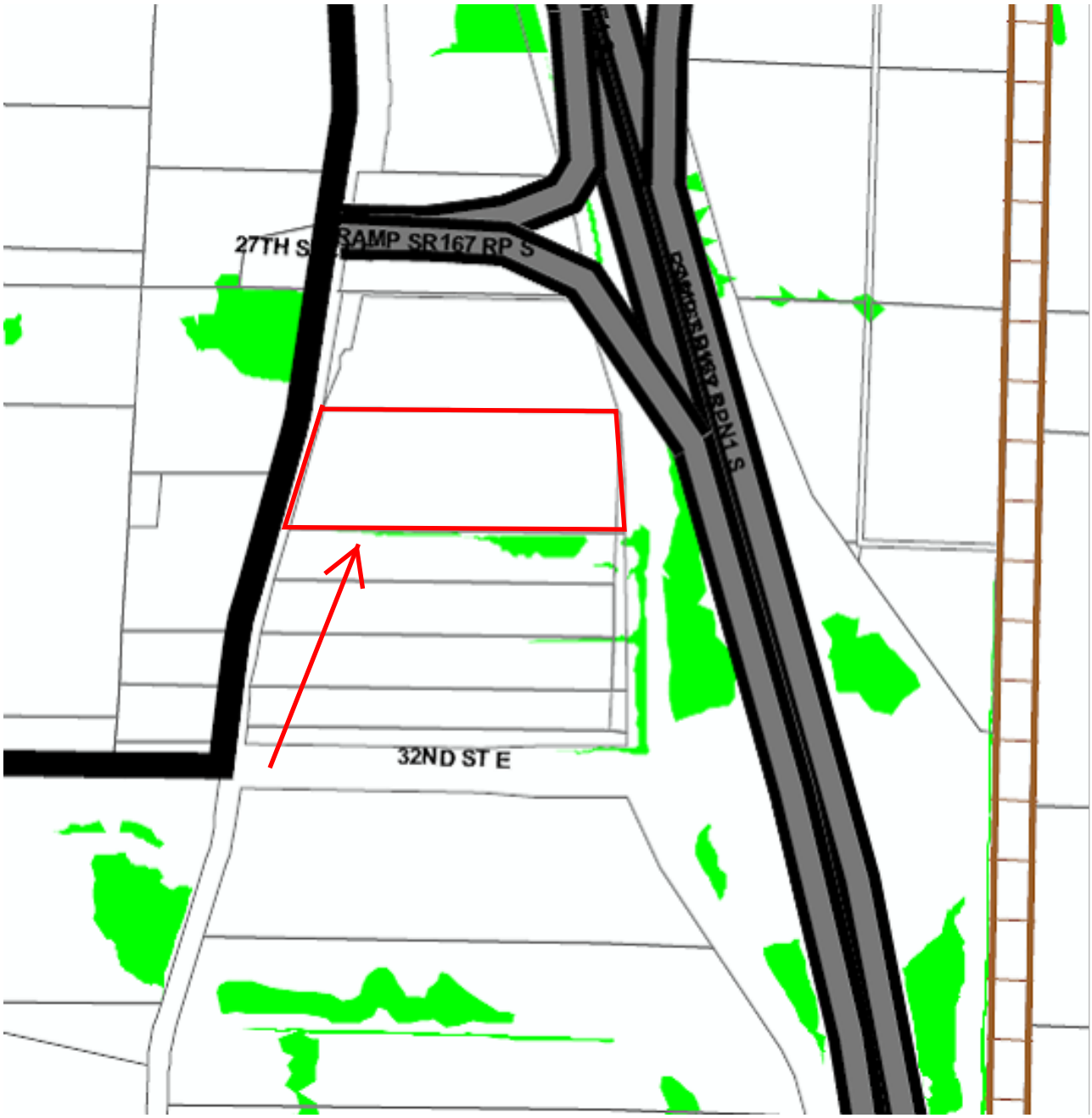
WATER BODIES
Open Water
Flats/Gravel Bars
Ice
Man Made Feature
Wet Area
Unknown/Unclassified

WETLANDS – Resource & Water Type Maps only
Type A
Type B
Forested
other

N
W
E
S

HABITAT TECHNOLOGIES

Figure 5
WDNR Mapping



LEGEND:

- Sumner City Limits
- Sumner UGA
- Parcels

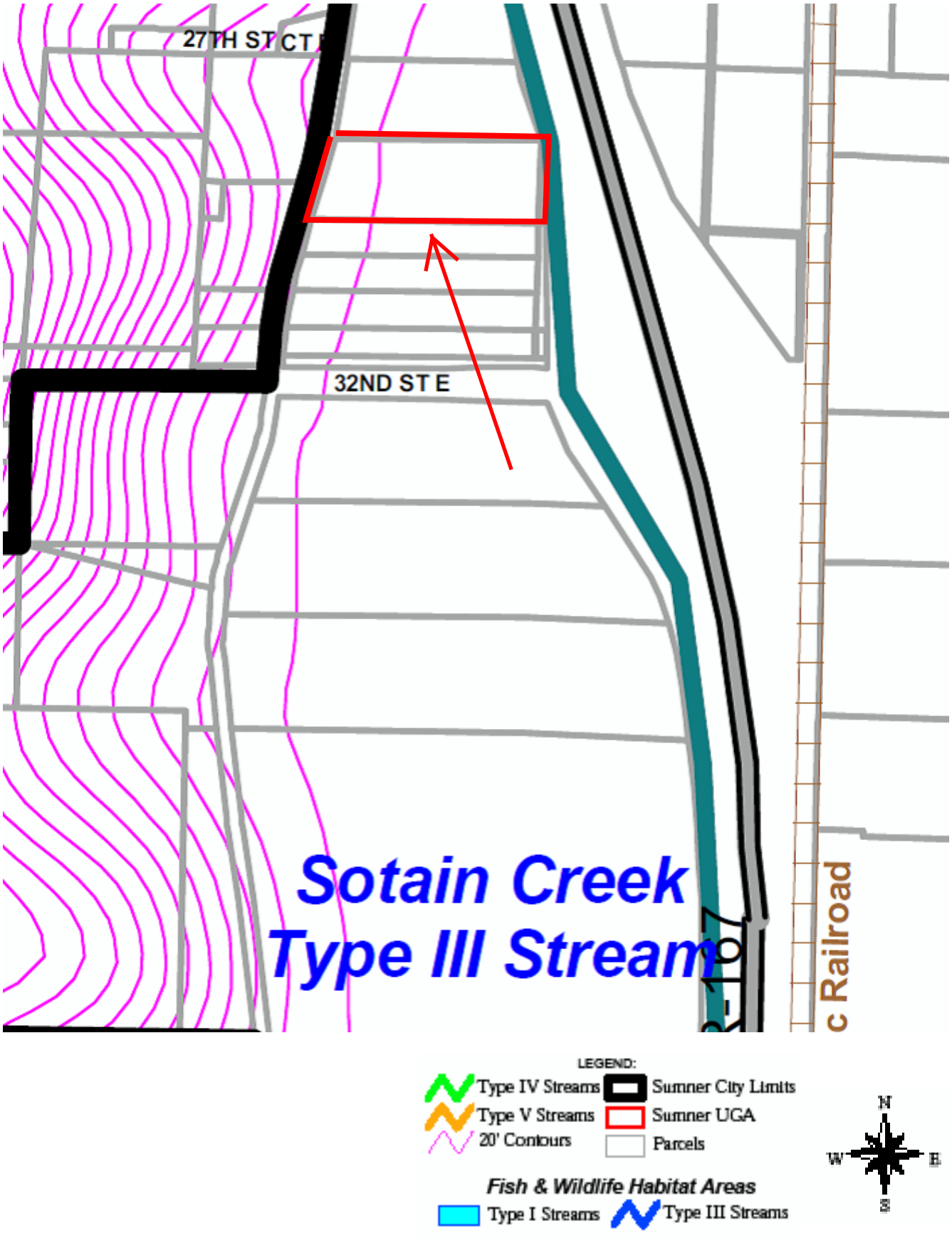
Wetlands

- Wetlands, March 2007

N W E S

HABITAT TECHNOLOGIES

Figure 6a
City of Sumner Wetland Mapping



HABITAT TECHNOLOGIES

Figure 6b
City of Sumner Stream Mapping

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