

DRAFT

ENVIRONMENTAL ASSESSMENT

**CONSTRUCTION AND OPERATION OF A
WASHINGTON ARMY NATIONAL GUARD
(WAARNG)
TUMWATER READINESS CENTER (TRC)
FACILITY IN TUMWATER, WASHINGTON**

THURSTON COUNTY, WASHINGTON

MILCON Project No. 530129

Environmental Programs
36 Quartermaster Road, Camp Murray WA 98430



April 2017



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ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the potential environmental, socio-economic, and cultural effects of the proposed construction and operation of a Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) facility in Tumwater, Thurston County, WA.

As required by the National Environmental Policy Act of 1969 (NEPA; 42 U.S. Code [USC] 4321 *et seq.*), the Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 150-1508), and 32 CFR Part 651 (Environmental Analysis of Army Actions, Final Rule), the potential effects of the Proposed Action and alternatives are analyzed. This EA will facilitate the decision-making process regarding the Proposed Action and its alternatives, and is organized as follows:

- **EXECUTIVE SUMMARY:** Describes the Proposed Action and alternatives considered; summarizes environmental, cultural and socio-economic consequences; and compares potential effects associated with the alternatives considered, including the No Action Alternative.
- **SECTION 1.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION:** Summarizes the purpose of and need for the Proposed Action, provides relevant background information, and describes the scope of the EA.
- **SECTION 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES:** Describes the Proposed Action. Presents alternatives for implementing the Proposed Action, including applied screening criteria, alternatives retained for further analysis, and alternatives eliminated, as well as a brief explanation of the rationale for eliminating certain alternatives.
- **SECTION 3.0 AFFECTED ENVIRONMENT:** Describes relevant components of the existing environmental, cultural, and socio-economic setting (within the Region of Influence or ROI) of the alternatives considered.
- **SECTION 4.0 ENVIRONMENTAL CONSEQUENCES:** Identifies individual and cumulative potential environmental, cultural, and socio-economic effects of implementing the alternatives considered; and identifies proposed mitigation and management measures, as and where appropriate.
- **SECTION 5.0 COMPARISON OF ALTERNATIVES AND CONCLUSION:** Compares the environmental effects of the alternatives considered and summarizes the significance of potential individual and cumulative effects from these alternatives.
- **SECTION 6.0 GLOSSARY:** Provides definitions of technical terms used in the EA.
- **SECTION 7.0 REFERENCES:** Provides bibliographical information for cited sources.
- **SECTION 8.0 LIST OF PREPARER:** Identifies document preparer and areas of expertise.
- **SECTION 9.0 AGENCIES AND INDIVIDUALS CONSULTED:** Lists agencies and individuals consulted during the preparation of this EA.

Funding Source: Military Construction (MILCON) Project Number 530129

Proponent: Washington Army National Guard (WAARNG)

Fiscal Year: 2018 Project

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EXECUTIVE SUMMARY

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3 The Washington Army National Guard (WAARNG), a component of the State of Washington Military
4 Department (WMD), prepared an Environmental Assessment (EA) to identify and evaluate potential significant
5 environmental impacts associated with the proposed construction and operation of a WAARNG Tumwater
6 Readiness Center (TRC) facility located in the vicinity of 8102, 8311, 8427 Kimmie St. SW in Tumwater,
7 Washington. Tumwater is located in Western Washington, about five miles south of the City of Olympia, the
8 capital of Washington State.

9
10 The WAARNG proposes to construct an approximately 82,000 square feet (81,682 SF) Readiness Center, plus
11 support structures: a 29,701 SF unheated vehicle storage building, a 220 SF flammable materials building, a
12 300 SF controlled waste storage facility, and about 26,992 SY pavement/sidewalks/curbing. The TRC facility
13 was originally proposed to be built on approximately 12 acres (ac) in a central portion of the 53-ac property
14 acquired by WMD in April 2015. Additional geotechnical surveys, however, revealed high soil liquefaction
15 potential and low infiltration rates in this section of the site that would entail costly structural mitigation. As
16 such, the WMD conducted further geotechnical studies to explore alternative location within the 53-ac site
17 that indicated that the northern portion of the site contains soils more suitable for construction and
18 stormwater mitigation. The TRC facility would be used to support WAARNG's training, administrative, and
19 logistical functions to achieve proficiency in required training tasks, improve readiness, and maintain soldier
20 morale.

21
22 The WAARNG prepared this Environmental Assessment (EA) in accordance with the National Environmental
23 Policy Act (NEPA) of 1969 as implemented by the regulations promulgated by the Council on Environmental
24 Quality (CEQ) (40 CFR Section 1500-1508), and 32 CFR Part 651, Environmental Analysis of Army Actions. The
25 guidelines set forth by the National Guard Bureau (NGB) were followed in preparing this EA.

Project Purpose and Need

26
27
28 The purpose of the Proposed Action is to provide a new facility that will allow the WAARNG units to continue
29 to meet required mobilization readiness, recruiting, retention, training, disaster/emergency response, and
30 maintenance objectives. There is a need for the Proposed Action because the two WAARNG facilities being
31 used for these purposes (Puyallup and Olympia Armories) are very old, deteriorating, and lack the training
32 area, administrative space, supply room, arms vault, kitchen, toilets/showers, physical fitness room, locker
33 room, privately operated vehicle (POV) parking area, and unheated storage space. Also, the WAARNG needs to

34 meet maintenance operations for all equipment as the existing facilities are being used to their maximum
35 capacities, with limited parking space and available work bays currently constraining maintenance capabilities.
36 In addition, the units currently stationed at these Armories need a facility that complies with National Guard
37 Pamphlet (NG PAM) 415-12 dated June 2011 criteria, Installation Status Report (ISR) Mission and Quality,
38 current code requirements as well as Americans with Disabilities (ADA) and Anti-terrorism Force Protection
39 (ATFP) requirements.

40

41 **Alternatives**

42 This Environmental Assessment (EA) evaluates the potential environmental, socio-economic, and cultural
43 effects of the proposed construction and operation of a Washington Army National Guard (WAARNG)
44 Tumwater Readiness Center (TRC) facility in Tumwater, Thurston County, WA.

45

46 The WAARNG initially considered seven alternatives to the Proposed Action: Kimmie St. property in Tumwater,
47 Port of Olympia property in Tumwater, Kaufman property in Grand Mound, Elderberry St. property in Grand
48 Mound, Highway 9 and Highway 99 property in Grand Mound, Recycling property in Grand Mound, and
49 Tumwater Commercial Place in Tumwater. Except for the Kimmie St. property, none of the other six
50 alternatives considered met all of the screening criteria nor were any of those accessible through a mutual
51 property transfer agreement. Table ES-1 presents the screening criteria and the alternatives that were
52 eliminated from further consideration when they did not meet one or more of the screening criteria. The
53 criteria for choosing the proposed location of the TRC facility included the following:

- 54 1. Within Thurston County, WA
- 55 2. At least 15 acres in a non-congested area
- 56 3. Adequate area to support mission requirements
- 57 4. Frontage on at least one public street or road, while ensuring adequate standoff to meet minimum
58 antiterrorism/force protection requirements
- 59 5. Adequate access roads from nearby population centers and from public highway networks. Preferably
60 served by public transportation.
- 61 6. Free from low-lying areas, steep slopes, landfills, faults, and other prospective nuisances.
- 62 7. Have uniformly contoured terrain that is either level or only slightly sloping (less than 4 percent).
- 63 8. Have soil at the frost line depth for the locality with a bearing capacity of approximately 2,000 pounds
64 per square foot on natural, undisturbed earth.
- 65 9. Accessibility to all public utilities necessary and required for successful operation of the facilities being
66 constructed.

- 67 10. Appropriate local zoning regulations to permit the construction and full use of a facility and to prohibit
68 the establishment of any activities or industries that would adversely affect the operation of the
69 facility.
- 70 11. Uncontaminated land, free from the prospect of hazardous substances that could subject the State or
71 Federal government to liability for response, clean-up, and health costs or for natural resource damage
72 costs, and free from conditions that would prevent or affect the construction, occupancy, and future
73 operation of the facility.
- 74 12. Not located on a flood plain.
- 75 13. Price of the property relative to the State of Washington funding for the purpose.
- 76
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Table ES-1. Comparison of alternatives considered for the construction and operation of the TRC facility.

	In Thurston County, WA	At least 15 ac	Adequate Area	Front at least 1 public street with ATFP requirements met	Access to population centers and highways	Served by public transportation	Free from low-lying areas, steep slopes, etc.	Uniformly contoured terrain (<4%)	Bearing capacity of ~2,000 lbs per SF	Access to all public utilities	Uncontaminated land, no NR restrictions	Not located on flood plain	Price of Land
Alternatives													
No Action	--	--	--	--	++	+	++	++	++	++	++	++	~
Kimmie St. Property	++	++	++	++	++	-	++	++	++	++	-	++	++
Alternatives Ruled Out													
Port of Olympia Property in Tumwater	++	++	++	++	++	-	++	++	~	++	-	++	+
Kaufman Property in Grand Mound	++	++	++	+	+	-	++	++	~	+	-	++	-
Elderberry St. Property in Grand Mound	++	++	++	++	+	-	++	++	~	+	+	++	-
Highway 9 & Highway 99 Property in Grand Mound	++	+	-	++	++	+	++	++	~	++	-	++	++
Recycling Property in Grand Mound	++	++	++	-	+	-	++	++	~	-	-	++	++
Tumwater Commercial Place in Tumwater	++	++	++	++	++	-	++	++	~	++	-	++	+

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- Legend:
- ++ meets screening criteria the best
 - + meets screening criteria adequately
 - ~ neutral (was not assessed using an engineering method)
 - does not meet screening criteria

3

1 This EA examined in-depth two alternatives below:
2

3 **(1) No Action Alternative** - Continue with operations as currently conducted and do not implement the
4 Proposed Action. The No Action Alternative serves as a baseline from which to compare all other
5 reasonable alternatives and was not analyzed as a viable option to accomplish the Proposed Action.
6 Under this alternative, the construction and operation of a TRC facility would not occur, and the
7 operations of the units would still take place at the Puyallup and Olympia Armories. Because the
8 existing Puyallup and Olympia facilities are already old, do not meet current Readiness Center
9 standards, and do not offer opportunities for expansion, those sites lack the needed efficiency and
10 effectiveness. By implementing the No Action Alternative, the units' ability to meet its readiness,
11 recruiting, retention and training objectives as well as the ability to assure emergency and disaster
12 response/shelter will continue to be adversely affected due to the lack of adequate facilities compliant
13 with Readiness Center requirements and safety codes.
14

15 **(2) Preferred Action Alternative** - Implement the Proposed Action which is to construct the TRC facility.
16 The Preferred Action alternative consists of the construction and operation of the TRC facility at a
17 WMD-acquired property located along Kimmie St. SW in Tumwater, WA, and subsequently conducting
18 weekend drill trainings, vehicle maintenance and other readiness center operations at that site. This
19 site supports the mission of the units by giving them enough space to conduct their training effectively
20 and allows for possible future development as well. The proposed TRC facility will provide a modern
21 regional training center that meets the multi-level training and operational requirements for the
22 assigned WAARNG units (Headquarters and Headquarters Battery [HHB] 2-146 FA; Det-1 C Battery, 2-
23 146 FA; Troop A, 1-303 CAV; and Det-1 F Company, 181 BSB). It will be designed to be an efficient,
24 technology-driven training facility that affords highly standardized and cost-effective training for the
25 WAARNG units. Consolidation of the two armories will improve the communication between units,
26 enhance operational efficiencies, and increase the utilization of common equipment and resources. It
27 will also relieve crowding in the existing, aging and inflexible facilities, and will allow for greater
28 quantities, types and sizes of supporting equipment. The TRC facility project is part of WAARNG efforts
29 to consolidate smaller, inefficient, deteriorating facilities into larger modernized ones, which are
30 strategically located in the region for efficiency, promoting a sense of unity, and better coordination of
31 operations in training and in action. The TRC facility will serve as the regional readiness center in the
32 South Puget Sound Region.
33

34 **Environmental Consequences**

35 The Preferred Action Alternative was evaluated to determine its potential direct or indirect impact(s) on the
36 environmental, cultural, and socio-economic aspects in Tumwater and surrounding area. Resource areas
37 evaluated include land use, air quality, noise, soils, water resources, biological resources, cultural resources,
38 socio-economics (including environmental justice and protection of children), infrastructure, and hazardous
39 and toxic materials/wastes.

40
41 Based on the environmental analysis summarized in the table below (Table ES-2), the WAARNG determined
42 that the construction and operation of the TRC facility, and weekend training activities at the facility would
43 overall have less-than-significant impacts to the surrounding natural and human environment. The Preferred
44 Action Alternative may encourage additional land development in the vicinity of the project site that may
45 result in potential impacts to traffic and noise. However, such developments are not expected to occur in the
46 short-term due to development restrictions related to those properties. Also, the level of cumulative impacts is
47 expected to be low overall, and thresholds for a significant impact to any of those resource areas are not
48 expected to be breached. No additional cumulative impacts are expected with respect to other environmental
49 and human resources.

50
51 **Mitigation Measures**

52 The proposed project site is proximate to a designated critical habitat for the Mazama pocket gopher (Olympia
53 subspecies) and contain soils that were identified by the USFWS as suitable habitats for this federally listed
54 species. Therefore, a Biological Evaluation was prepared and the WAARNG determined that the Preferred
55 Action Alternative would affect but not likely to adversely affect Mazama pocket gopher (Olympia subspecies)
56 and its habitat. No mitigation measures are necessary to reduce adverse environmental impacts to less-than-
57 significant levels. To guard against the development of circumstances that could in limited cases result in site-
58 specific adverse effects, the NGB and the WAARNG will maintain their stewardship posture by implementing
59 the BMPs for each resource area.

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Table ES-2. Summary of impacts to environmental resources.

Resource	No Action Alternative	Preferred Action Alternative
Land Use	No impact attributable to WAARNG action. WAARNG would continue to use inadequate training and administration facilities in existing locations.	No adverse impact. The site for the Preferred Action Alternative had already been zoned Light Industrial. Potentially, long-term positive impact through development of the site in consonance with County and City plans and zoning.
Air Quality	No impact attributable to WAARNG action. Ongoing operations' emissions in existing facilities would continue.	Short-term, less-than-significant adverse impacts due to potential for air emissions/dust generation only during construction activities and the proximity to sensitive receptors. Sensitive noise receptors are Kimmie St. residential community and George Washington Bush Middle School. Long-term, less-than-significant adverse impacts due to increased site emissions, including WAARNG traffic. Would be managed with the implementation of BMPs. Air quality impacts determined to be below <i>de minimis</i> levels for conformity analysis.
Noise	No impact attributable to WAARNG action. Ongoing operations' noise in existing facilities would continue.	Short-term, less-than-significant adverse impacts due to potential for noise generation from construction activities and the proximity to noise receptors. Sensitive noise receptors are Kimmie St. residential community and George Washington Bush Middle School. Long-term, less-than-significant adverse impact due to training noise and WAARNG traffic. Daytime drill occurs only one weekend per month and would not generate significant noise increase than what is currently experienced in the neighborhood. Would be managed with the implementation of BMPs.
Topography, Geology and Soils	No impact attributable to WAARNG action. WAARNG would continue to use inadequate training and administration facilities in existing locations.	No impacts to geology and topography. Short-term, less-than-significant adverse impacts to soils during construction due to grading of a portion of the site. Erosion measures and other applicable BMPs would be implemented during the construction phase based on the conditions in the NPDES permit (Construction Stormwater General Permit). No long-term adverse impacts anticipated.
Water Resources	No impact attributable to WAARNG action.	Short-term, less-than-significant adverse impacts to offsite surface waters due to soil erosion and consequent sedimentation due to grading of a portion of the site during construction. Would be managed with the implementation of BMPs. Long-term, less-than-significant adverse impacts to groundwater due to the site being in an area where there is high groundwater issue and is within a Wellhead Protection Area. An infiltration pond would be constructed for stormwater management. The TRC facility will be sited in the northern portion of the site, which is the least forested, had been previously developed, where soils are more suitable for construction, and groundwater concerns can be readily managed. Impacts would be managed with the implementation of BMPs.

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Table ES-2. Summary of impacts to environmental resources. (cont.)

Resource	No Action Alternative	Preferred Action Alternative
Biological Resources	No impact attributable to WAARNG action.	Less-than-significant adverse impacts due to removal of vegetation and therefore loss of wildlife habitat. Wetlands will be excluded from construction footprint and training area. Potential long-term, less-than-significant adverse impact on Mazama Pocket Gophers due to permanent loss of soils that are suitable habitat for this species. No mitigation measures necessary and impacts would be managed with the implementation of BMPs.
Cultural Resources	No impact attributable to WAARNG action.	No short- and long-term adverse impacts. No cultural or archaeological resources present. Potential for inadvertent discoveries of cultural resources and/or human remains during construction. Would be managed with the implementation of BMPs and following WAARNG Standard Operating Procedure for Inadvertent Discovery.
Socio-economic (including Environmental Justice and Protection of Children)	No impact attributable to WAARNG action.	No short- and long-term adverse impacts to socio-economic resources, such as recreation, population, or housing. Short- and long-term positive impacts to the community due to creation of construction jobs and spending on meals and services. Short-term, less-than-significant adverse impacts to the health and safety of children or minority populations, including Kimmie St. neighborhood and George W. Bush Middle School due to slight increase in noise and traffic during construction activities. Long-term less-than-significant adverse impacts to the health and safety of children and minority populations due to slight increase in traffic from the use of the WAARNG facility. Impacts would be managed with the implementation of BMPs.
Infrastructure	No impact attributable to WAARNG action.	No short- and long-term adverse impacts to utilities as the facility will connect to existing utilities that have sufficient capacity to accommodate water, sewer, waste and other utilities needs of the facility. Short- and long-term less-than-significant adverse impacts to traffic in a limited portion of Kimmie St. Impacts would be managed with the implementation of BMPs. Personnel will be required to use I-5 Exit 101. Daytime drill occurs only one weekend per month. Sufficient parking space for drill soldiers would be present at the facility.
Hazardous and Toxic Materials/Wastes	No impact attributable to WAARNG action.	Short- and long-term less-than-significant adverse impacts. Personnel and construction contractors will follow spill prevention and response procedures as well as all Federal, State, and local laws and procedures, and obtain all necessary permits. Impacts would be managed with the implementation of BMPs.

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71 **Best Management Practices**

72 Per established protocols, procedures, and requirements, the WAARNG will implement Best Management
73 Practices (BMPs) and will satisfy all applicable Regulatory Requirements in association with design,
74 construction, and operation of the Preferred Action Alternative component projects. These “management
75 measures” are described in this EA, and are included as components of the Preferred Action Alternative.
76 “Management measures” are defined as routine BMPs and/or regulatory compliance measures that the
77 WAARNG regularly implements as part of their activities, as appropriate, across the State of Washington.
78 These are distinguished from “mitigation measures,” which are defined as project-specific requirements, not
79 routinely implemented by the WAARNG, and necessary to reduce identified potentially significant adverse
80 environmental impacts to less-than-significant levels. With implementation of the following routine
81 “management measures”, the Preferred Action Alternative would not result in significant adverse impacts to
82 the current environmental setting.

83

84 Air Quality: Prepare a Dust Control Plan. Reduce or eliminate fugitive dust emissions and minimize impacts to
85 air quality by watering disturbed and unpaved areas, limiting vehicle speeds on unpaved areas, covering haul
86 trucks with tarps, ceasing earth-moving or disturbance activities during high wind conditions, and stabilizing
87 previously disturbed areas if these will be inactively used for several weeks.

88

89 Noise: Reduce noise impacts during construction by halting or limiting construction activities and associated
90 heavy equipment traffic between 9:00 P.M and 7:00 A.M. This measure would reduce noise impacts during
91 sensitive night-time hours. Locate stationary equipment as far away from sensitive noise receptors as possible.
92 Shut down noise-generating equipment when not being used. Assure proper maintenance of noise-generating
93 equipment per manufacturers’ recommendation.

94

95 Topography, Geology and Soils: Prepare an Erosion and Sedimentation Control Plan to address all earth
96 disturbance aspects of the Preferred Action Alternative. Install and monitor erosion prevention measures such
97 as silt fences, sedimentation basins, and/or other sediment control structures; covering stockpiled soils; and
98 seeding/revegetation or stabilizing areas temporarily cleared of vegetation. Avoid training in bare areas or
99 when ground is very moist, and hydroseeding bare areas after a major training event.

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101 Migratory Birds: Reduce avian risk, to the extent possible, by conducting land disturbing activities either before
102 or after nesting season. Bird-window strikes will be monitored and corrective actions taken if it becomes a
103 problem.

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Cultural Resources: In the event of inadvertent discovery of cultural/archaeological resources, all work would stop, the site of discovery secured, and the contractor would contact the WAARNG Environmental Programs for guidance.

Hazardous and Toxic Materials: Comply with Federal, State and local requirements, as well as Army BMPs for handling and storing hazardous and toxic materials and wastes. Train personnel on how to properly handle, store and dispose of hazardous materials/wastes and how to respond to and report spills when these occur.

Agency and Public Involvement

Through the Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) process, the WAARNG consulted relevant Federal, State, and local agencies, and allows them sufficient time to make known their environmental concerns specific to the Preferred Action Alternative. Agencies consulted for this EA include the United States Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration-National Marine and Fisheries Service (NOAA-NMFS), Washington State Department of Natural Resources (WDNR), and Washington Department of Fish and Wildlife (WDFW). Consultations with the State Historic Preservation Office (SHPO) and Native American tribes with potential cultural interest in the proposed TRC facility site are presented in Appendix A. Also included in Appendix A are correspondence and Memorandum for Records (MFRs) for National Historic Preservation Act (NHPA) Section 106 and Endangered Species Act (ESA) Section 7 consultations. An ESA Section 7 Biological Evaluation is presented in Appendix B. A public scoping meeting was held on June 30, 2015 and the WAARNG addressed comments that were received during that meeting, which are summarized in Appendix A.

The WAARNG, as the proponent of the Preferred Action Alternative, will conduct a 30-day public comment period for this EA. A Notice of Availability (NOA) will be published in at least two local newspapers of general circulation and the WMD's website. An electronic copy of this EA and/or a NOA letter and/or postcard will also be distributed to concerned agencies and interested individuals, and neighboring property owners within a quarter mile from the project site's boundary. Review copies will be made available for public review at local libraries in Tumwater and at the WAARNG Environmental Program office in Camp Murray. Throughout this process, the public may obtain information on the status and progress of the EA through the WAARNG Public Affairs Office (PAO).

137 **Conclusion**

138 Pursuant to Department of Defense (DoD) Directive 5105.77, *National Guard Bureau (NGB)*, dated 21 May
139 2008, the NGB serves as the principal advisor on matters involving the Army National Guard (ARNG), and is
140 responsible for implementing DoD guidance on the structure and strength authorizations of the ARNG. The
141 NGB is responsible for ensuring that ARNG activities are performed in accordance with applicable policies and
142 regulations. As such, the NGB is the lead federal agency responsible for the preparation of a NEPA-compliant
143 documentation on projects for which the WAARNG is the proponent. In that capacity, the NGB is ultimately
144 responsible for environmental analyses and documentation; however, the local responsibility for the NEPA
145 document preparation falls upon the WAARNG.

146

147 This EA analyzes the potential for significant environmental effects associated with the implementation of the
148 Proposed Action and alternatives, including the No Action Alternative. If the analyses presented in this EA
149 indicate that the Preferred Action Alternative would not result in significant environmental, cultural, or socio-
150 economic effects, then a Finding of No Significant Impact (FNSI) will be prepared. A FNSI briefly presents the
151 reasons why a Preferred Action Alternative would not have significant effect on the human and natural
152 environment and why an Environmental Impact Statement (EIS) would not be necessary. If the analyses
153 presented in this EA indicate that significant environmental effects would result from the Preferred Action
154 Alternative implementation that cannot be managed or mitigated to insignificant level, either a Notice of
155 Intent (NOI) to prepare and EIS would be required or no action would be taken.

156

157 The evaluations performed in this EA conclude that there would be no significant adverse effects, either
158 individually or cumulatively, to the local environment or quality of life associated with the implementation
159 of the Preferred Action Alternative, provided that BMPs specified in this EA are implemented. This EA
160 recommends the implementation of the Preferred Action Alternative. Based on the analysis presented in
161 this EA, the WAARNG has determined that an EIS is unnecessary for this Preferred Action Alternative and
162 that a FNSI is appropriate.

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ACRONYMS AND ABBREVIATIONS

ADA – Americans with Disabilities Act	FA – Field Artillery
AHPA – Archaeological and Historic Preservation Act	FAA – Federal Aviation Administration
AIRFA – American Indian Religious Freedom Act	FASL – ft above sea level
APE – Area of Potential Effect	FEMA – Federal Emergency Management Agency
AR – Army Regulation	FIRM – Flood Insurance Rate Map
ARPA – Archaeological Resources Protection Act	FMS – Field Maintenance Shop
ATFP – Anti-terrorism and Force Protection	FNSI – Finding of No Significant Impact
BE – Biological Evaluation	GHGs – Greenhouse Gases
BMPs – Best Management Practices	GSF – Gross Square Feet
BSB – Brigade Support Battalion	HCP – Habitat Conservation Plan
CAA – Clean Air Act	HHB – Headquarters and Headquarters Battery
CAV – Cavalry Regiment	HVAC – Heating, Ventilation, and Air Conditioning
CEQ – Council on Environmental Quality	IBC – International Building Code
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act	IFC – International Fire Code
CO – Carbon monoxide	IICEP – Interagency and Intergovernmental Coordination for Environmental Planning
CSWGP – Construction Stormwater General Permit	ISR – Installation Status Report
CWA – Clean Water Act	JBLM – Joint Base Lewis-McChord
CFR – Code of Federal Regulations	LEED – Leadership in Economic and Environmental Design
DA – Department of Army	LI – Light Industrial
DAHPP – Department of Archaeology and Historic Preservation	MBTA – Migratory Bird Treaty Act
dB – decibel	MILCON – Military Construction
dba – decibel’s A-weighted frequency scale	NAAQS – National Ambient Air Quality Standards
DCP – Dust Control Plan	NAGPRA – Native American Graves Protection and Repatriation Act
DDECM – Drainage Design and Erosion Control Manual	NEPA – National Environmental Policy Act
DES – Department of Enterprise Services	NFPA – National Fire Protection Association
Det – Detachment	NGB – National Guard Bureau
DoD – Department of Defense	NG PAM – National Guard Pamphlet
DoDI – Department of Defense Instruction	NHPA – National Historic Preservation Act
DOH – Department of Health	NHTSA – National Highway Traffic Safety Administration
EA – Environmental Assessment	NMFS – National Marine Fisheries Service
EMS – Environmental Management Systems	NOA – Notice of Availability
EPA – Environmental Protection Agency	
ESA – Endangered Species Act	
EIS – Environmental Impact Statement	
EO – Executive Order	

ACRONYMS AND ABBREVIATIONS (cont.)

NOAA – National Oceanic and Atmospheric Administration	SY – Square yards
NOI – Notice of Intent	SR – State Route
NO _x – Nitrogen oxides	SWPPP – Stormwater Pollution Prevention Plan
NPDES – National Pollutant Discharge Elimination System	TRC – Tumwater Readiness Center
OFM – Office of Financial Management	TSCA – Toxic Substances Control Act
O ₃ – Ozone	UFC – Unified Facilities Criteria
ORCAA – Olympic Region Clean Air Agency	USC - United States Code
PAO – Public Affairs Office	USDA – United States Department of Agriculture
PHS – Priority Habitat Species	USEPA/EPA – United States Environmental Protection Agency
PM – Particulate matter	USFWS – United States Fish and Wildlife Service
POL – Petroleum/Oil/Lubricants	WAARNG – Washington Army National Guard
POV – Privately Operated Vehicles	WAC – Washington Administrative Code
Pb – Lead	WAU – Watershed Administrative Units
PSE – Puget Sound Energy	WDFW – Washington Department of Fish and Wildlife
PVC – Polyvinyl chloride	WDNR – Washington Department of Natural Resources
RCRA – Resource Conservation and Recovery Act	WDOH – Washington State Department of Health
ROI – Region of Influence	WMD – Washington Military Department
RONA – Record of Non-Applicability	WRIA – Watershed Resource Inventory Areas
SFL – Single Family Low Density	WSDOT – Washington State Department of Transportation
SHPO – State Historic Preservation Office	
SIPs – State Implementation Plans	
SO ₂ – sulfur dioxide	
SPCCP – Spill Prevention Control and Countermeasures Plan	
SEPA – State Environmental Policy Act	
SF – Square feet	



33



34

35

Figure 1-1 Tumwater Readiness Center facility location map and site plan.

36 facilities. That plan, however, recommended that the Centralia Armory remain in operation and instead
37 proposed to have the existing Olympia and Puyallup Armories be divested and replaced with a new combined
38 facility. The consolidation of Olympia and Puyallup Armories' functions into a new regional training facility is
39 consistent with the established policies, goals and objectives of the 25-Year Statewide Facilities Plan of the
40 WMD. The original proposed name for the combined facility was Thurston County Readiness Center (TCRC)
41 and was later renamed as Tumwater Readiness Center (TRC), given the city within Thurston County that
42 encompasses the property selected for this construction project.

43
44 An EA has been prepared because the Proposed Action will result in more than 5.0 ac of surface disturbance
45 and the potential for community concern.

46

47 **1.2 Purpose and Need**

48 The purpose of the Proposed Action is to provide the WAARNG units currently stationed at the Puyallup and
49 Olympia Armories with a cost-effective and operationally-efficient specialized training facility that will allow
50 the units to continue to meet their required mobilization readiness, recruiting, retention, training,
51 disaster/emergency response, and maintenance objectives. There is a need to implement the Proposed Action
52 because the two WAARNG facilities being used for these purposes (Puyallup and Olympia Armories) are
53 obsolete, deteriorating, and insufficiently meet current and projected needs. Both facilities also display a
54 myriad of age-related defects, and lack the needed support structures (i.e., training area, administrative space,
55 supply room, arms vault, kitchen, toilets/showers, physical fitness space, locker room, POV parking area, and
56 unheated storage space). In addition, the units currently stationed at these Armories need a facility that
57 complies with the requirements of NG PAM 415-12 dated June 2011 criteria, ISR Mission and Quality, current
58 building code, as well as ADA and ATRP requirements. While replacing existing facilities not meeting
59 established standards is not mandated by the NGB, it *is mandated* that the various states take a proactive role
60 in addressing facility shortfalls, which negatively impact the military readiness of the housed units and their
61 ability to respond quickly and rapidly to their civil mission as first responders in declared disasters or civil
62 emergencies. The TRC facility would be used by Headquarters and Headquarters Battery [HHB] 2-146 FA; Det-1
63 C Battery, 2-146 FA; Troop A, 1-303 CAV; and Det-1 F Company, 181 BSB with up to 25 full-time personnel to
64 be stationed at this facility.

65

66

67

68 As discussed earlier, both projects began with the desire to increase overall efficiency, maximize return on
69 costs, and meet mission objectives by providing a new modern facility for the WAARNG. The need for this
70 facility was underscored in the 2004 WAARNG Facilities Stationing Plan undertaken by the OFM which
71 recommended consolidation of these two well-used but worn facilities to realize both operational and facilities
72 savings. The WAARNG's subsequent 2012 25-Year Statewide Facilities Plan recommended that the Centralia
73 Armory be retained, and that the current Puyallup Armory be divested and replaced, and that its functions be
74 co-located with the Olympia Armory which was slated to be divested and replaced.

75
76 The proposed TRC facility will provide a modern regional training center that meets the multi-level training and
77 operational requirements for the assigned WAARNG units (Headquarters and Headquarters Battery [HHB] 2-
78 146 FA; Det-1 C Battery, 2-146 FA; Troop A, 1-303 CAV; and Det-1 F Company, 181 BSB). It will be designed to
79 be an efficient, modernized training facility that affords highly standardized and cost-effective training for the
80 WAARNG units. Consolidation of the two armories will improve the communication between units, enhance
81 operational efficiencies, and increase the utilization of common equipment and resources. It will also relieve
82 crowding in the existing aging and inflexible facilities, and will allow for increased quantity, type and size of
83 supporting equipment. The new TRC facility would also be built to current standards for essential facilities, and
84 will be provided with a standby generator sized to assure 100% operational capability whether for military
85 operations, disaster response, or for use as an emergency community shelter.

86
87 With a larger area available in the new TRC facility site, the units would have sufficient area to stage, service or
88 train with field navigational equipment and gear as well as to carry out the essential functions of military
89 vehicle storage, vehicle training work bays, and vehicle fueling and cleaning. The new facility would be built to
90 current design standards including the Washington State Energy Code, and be required to seek a Leadership in
91 Economic and Environmental Design (LEED) Silver standard at a minimum. Such a new and energy-efficient
92 facility is expected to reduce the WAARNG's operating costs in all categories. As a secondary function, the
93 proposed TRC facility would be available for community use and would function as an emergency response
94 center and shelter. Being near a high concentration of other state agencies, as well as being within the
95 Tumwater community, the facility would offer excellent meeting and conference facilities in support of
96 multiple agencies and other public and community groups.

97
98 Construction and operation of the TRC facility would support the ongoing mission of units currently assigned to
99 undergo training and other readiness functions. Construction would meet standards and requirements as

100 described in Army National Guard Facilities Allowances (NGB PAM 415-1) and NGR 415-10 (Army National
101 Guard Facilities Construction) and would support the ongoing mission of the WAARNG units.

103 **1.3 Scope of the Environmental Assessment**

104 The scope of this document is to analyze the potential environmental, cultural and socio-economic
105 consequences to resources within the project site and its vicinity that could result from the implementation of
106 the Preferred Action Alternative (i.e., construction and operation of the TRC facility at Kimmie St. SW). A
107 decision will be made based on the findings of this analysis, on how best to meet the purpose of and need for
108 the Preferred Action Alternative while keeping the objectives, Preferred Action Alternative implementation,
109 and alternatives in mind. The overall goal is to implement the action alternative that will have the least
110 adverse effect on the environment, while at the same time providing the units with the training and operation
111 facilities that they require to successfully carry out their activities and missions.

112
113 The scope of this EA includes descriptions and evaluation of alternatives, summarized as follows: **Alternative 1:**
114 **No Action Alternative** - Continue with operations as currently conducted and do not implement the Preferred
115 Action Alternative. Under the No Action alternative, the purpose of and need for the Proposed Action would
116 not be met. **Alternative 2: Preferred Action Alternative** - Implement the Proposed Action as defined in Section
117 2.0. The Preferred Action Alternative is to construct and operate a TRC facility at Kimmie St. SW in Tumwater,
118 Thurston County, WA. A detailed description of the Proposed Action and alternatives is provided in Section 2.0.

120 **1.4 Decision-Making**

121 Pursuant to DoD Directive 5105.77, *National Guard Bureau*, dated 21 May 2008, the NGB serves as the
122 principal advisor on matters involving the Army National Guard (ARNG), and is responsible for implementing
123 DoD guidance on the structure and strength authorizations of the ARNG. The NGB is responsible for ensuring
124 that ARNG activities are performed in accordance with applicable policies and regulations. As such, the NGB is
125 the lead federal agency responsible for the preparation of a NEPA-compliant documentation on projects for
126 which the WAARNG is the proponent. In that capacity, the NGB is ultimately responsible for environmental
127 analyses and documentation; however, the local responsibility for the NEPA document preparation falls upon
128 the WAARNG.

129
130 The decision to be made is whether, having taken potential environmental effects into account, the WAARNG
131 should construct and operate the proposed TRC facility at Kimmie St. SW in Tumwater and as appropriate,

132 implement measures to reduce effects on resources and the environment. The NGB, working with the
133 WAARNG, will ultimately decide whether the action is funded and constructed.

134

135 **1.5 Public and Agency Involvement**

136 The WAARNG invites public participation in the decision-making process through the NEPA process. Public
137 participation with respect to decision-making on the Preferred Action Alternative is guided by 32 CFR Part 651,
138 the Army's policy for implementing NEPA. Consideration of the views and information from all interested
139 persons promotes open communication and enables better decision-making. Agencies, organizations, and
140 members of the public having a potential interest in the Preferred Action Alternative, including minority, low-
141 income, disadvantaged, and Native American groups, are urged to participate. A record of public involvement,
142 agency coordination, and Native American consultation is provided in Appendix A of this document.

143 Per 40 CFR Part 1501.7 (a) (3), the CEQ recommends that agencies identify and eliminate from detailed study
144 any issues, which are not significant or which have been covered in another environmental review, narrowing
145 the discussion to a brief presentation of why they will not have a significant effect on the environment or
146 providing a reference to their coverage elsewhere. Resource areas considered but excluded from further
147 analysis in Section 4.0 of this EA include: climate, topography, geology, and wetlands and riparian vegetation.
148 No impacts either positive or negative are anticipated to occur to these resources because of the Preferred
149 Action Alternative or No Action Alternative.

150 **1.5.1 Public Review**

151 The WAARNG, as the proponent of the Preferred Action Alternative, will conduct a 30-day public comment
152 period for this EA. A NOA will be published in at least two local newspapers of general circulation and the
153 WMD's website. An electronic copy of this EA and/or a NOA letter and/or postcard will also be distributed to
154 concerned agencies, interested individuals, and neighboring property owners within a quarter mile from the
155 project site's boundary. Review copies will be made available for public review at local libraries in Tumwater
156 and at the WAARNG Environmental Program office in Camp Murray.

157

158 As appropriate, the WAARNG may then prepare a FNSI and proceed with the implementation of the Preferred
159 Action Alternative. If it is determined that the implementation of the Preferred Action Alternative would result
160 in significant impacts that cannot be managed or mitigated, the WAARNG will either not take this action as
161 proposed, or will publish in the Federal Register a NOI to prepare an EIS. Throughout this process, the public
162 may obtain information on the status and progress of the EA through the WAARNG PAO.

163 **1.5.2 Agency Coordination**

164 The IICEP is a federally-mandated process for informing and coordinating with other governmental agencies
165 regarding Federal Proposed Actions. CEQ regulations require intergovernmental notifications prior to making
166 any detailed statement of environmental impacts. Through the IICEP process, the WAARNG notifies relevant
167 Federal, State, and local agencies, and allows them sufficient time to make known their environmental
168 concerns specific to the Preferred Action Alternative. Comments and concerns submitted by these agencies
169 during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts
170 conducted as part of the EA. This coordination fulfills requirement under EO 12372 (superseded by EO 12416,
171 and subsequently supplemented by EO 13132), which requires Federal agencies to cooperate with and
172 consider State and local views in implementing a Federal proposal. It also constitutes the IICEP process for this
173 EA. The list of all agencies consulted for this EA is presented in Section 9.0 of this EA, and copies of
174 correspondence to these agencies/individuals consulted are presented in Appendix A.

175 **1.5.3 Native American Consultation**

176 The WAARNG is conducting consultation with federally recognized Native American tribes as required under
177 DoD Instruction 4710.02, *Interactions with Federally Recognized Tribes*, which implements the Annotated DoD
178 American Indian and Alaska Native Policy (dated 27 October 1999); Army Regulation 200-1; NEPA; the NHPA;
179 and the NAGPRA. Concerned tribes were invited to participate in the EA and NHPA Section 106 processes as
180 Sovereign Nations per EO 13175, *Consultation and Coordination with Indian Tribal Government*, 6 November
181 2000.

182 The WAARNG developed a list of federally-recognized tribes that may have potential cultural affiliations or
183 interests in the area's natural and cultural resources based on consultation with the SHPO and identifying
184 those that operate within 50 miles from the proposed project site. A summary of and correspondence related
185 to government-to-government consultation are presented in Appendix A.

186 **1.6 Related NEPA, Environmental, and Other Documents and Processes**

187 This is the first EA prepared for this Preferred Action Alternative. During the land acquisition phase, the WMD
188 conducted rapid environmental assessments and reviewed available environmental documents for various
189 properties considered. After the WMD's acquisition of the Kimmie St. property, the WAARNG conducted
190 various studies (i.e., stormwater design, geotechnical study, cultural survey, noise study, and traffic study),
191 reviewed previous studies conducted by former property owners who intended to commercially develop the
192 site, and prepared a Biological Evaluation to ensure that all environmental concerns were considered in the
193 preparation of the EA. These studies/reports were provided in Appendices B to N.

194 **1.7 Regulatory Framework**

195 This EA has been prepared in accordance with the NEPA, CEQ regulations (Authority: NEPA, the Environmental
196 Quality Improvement Act of 1970, as amended [42 U.S.C. 4321 *et seq.*], Sec. 309 of the Clean Air Act (CAA), as
197 amended [42 U.S.C. 7609], and E.O. 11514, Mar. 5, 1970, as amended by E.O. 11991, May 24, 1977, Sec.
198 1502.9, 40 CFR Parts 1500-1508, and 32 CFR 651-Environmental Effects of Army Actions, March 29, 2002). In
199 addition, this document complies with Section 7 of the ESA of 1973; Protection of Historic Properties (36 CFR
200 800); Native American Graves Protection and Repatriation Act (NAGPRA), (25 U.S.C. 3001 *et seq.*); and, the
201 Archeological Resources Protection Act (ARPA) of 1979. General authorities for Native American Tribe
202 Consultation include: American Indian Religious Freedom Act (AIRFA) of 1979; E.O. 13007-*Indian Sacred Sites*,
203 and Department of Defense (DoD) Instruction 4710.02-*DoD Interactions with Federally Recognized Tribes* (DoD
204 2006), within which the DoD *Annotated American Indian and Alaskan Native Policy* is a component. This EA
205 also satisfies state and local regulations concerning the assessment of environmental impacts of proposed
206 actions such as WAC 197-11-960 *Environmental checklist*, WAC 173-157-150 *What must I include in the*
207 *environmental assessment and analysis?*, Chapter 43.21C RCW *State Environmental Policy*, Thurston County
208 Code Title 17 *Environment*, and City of Tumwater Municipal Code Title 16 *Environment*.

32 **2.2.1 Project Timing and Progression**

33 If the Preferred Action Alternative is accepted and the EA's outcome becomes a finding of no significant
34 impact, the anticipated TRC facility construction could begin as early as October 2017 (FY 2018). The
35 construction of the facility is expected to take up to 18 months.

36 **2.2.2 Construction Activities**

37 **2.2.2.1 TRC and Associated Facilities**

38 The WAARNG proposes to construct and operate the TRC facility consisting of an approximately 82,000 SF
39 (81,682 SF) Readiness Center, plus support structures: a 29,701 SF unheated vehicle storage building, a 220 SF
40 flammable materials building, a 300 SF controlled waste storage facility, and about 26,992 SY
41 pavement/sidewalks/curbing. The two-story readiness center will be constructed with masonry type
42 construction, and will also include stormwater basins.

43
44 The site will have two Fire Finder Radar Systems, which would need grounding and external power supply to
45 operate. Construction will include all utility services, information systems, fire detection and alarm systems,
46 roads, walks curbs, gutters, storm drainage, parking areas and site improvements. Facilities will be designed to
47 a minimum life of 50 years in accordance with DoD's Unified Facilities Criteria (UFC 1-200-02) including energy
48 efficiencies, building envelope, and integrated building systems performance as per ASA(IE&E) Sustainable
49 Design and Development Policy Update dated December 2013. Access for individuals with disabilities will be
50 provided.

51
52 **2.2.2.2 Anti-Terrorism/Force Protection**

53 The UFC 4-010-01 and 4-010-02 anti-terrorism standards require extensive clear area and site setbacks
54 impacting configuration of the site. Additionally, UFC 4-023-03 mandates redundant structural capacity such
55 that removal of a single column will not result in structural collapse. Blast protection of windows requires
56 anchorage and glazing performance significantly greater than standard windows.

57
58 The project contains weapons vaults which will be designed to NGB standards and provided with Class-V vault
59 doors and intrusion detection systems. Similarly, a secure IT facility will be designed to DoD standards.

60
61 To accommodate use by other state agencies and the general public, the facility will have internal security
62 zoning such that exclusively military functions areas are separate and secure from non-military/public
63 functions areas.

64 **2.2.3 Permits**

65 This project will be implemented under state contracting procedures, and state and local permitting
66 requirements will be met. The WAARNG's CFMO and its contractor would obtain all required permits (e.g.,
67 NPDES' Construction Stormwater General Permit, New Source Review, etc.).

68 **2.3 Alternatives Considered**

69 **2.3.1 Alternatives Development (Screening Criteria)**

70 The NEPA, CEQ regulations, and 32 CFR Part 651 require that all reasonable alternatives be rigorously explored
71 and objectively evaluated. Alternatives that are eliminated from detailed study must be identified along with a
72 brief discussion of the reasons for eliminating them. For purposes of discussion, an alternative was considered
73 "reasonable" only if it would allow the WAARNG to improve its ability to meet its military mission while
74 providing more sustainable and environmentally-friendly surroundings, meeting all applicable environmental
75 regulations, complying with all security requirements, and doing so in a cost-effective manner.

76
77 The criteria for choosing the proposed location of the new TRC facility included the following:

- 78
79 1. Within Thurston County, WA
- 80 2. At least 15 acres in a non-congested area
- 81 3. Adequate area to support mission requirements
- 82 4. Frontage on at least one public street or road, while ensuring adequate standoff to meet minimum
83 antiterrorism/force protection requirements
- 84 5. Adequate access roads from nearby population centers and from public highway networks. Preferably
85 served by public transportation.
- 86 6. Free from low-lying areas, steep slopes, landfills, faults, and other prospective nuisances.
- 87 7. Have uniformly contoured terrain that is either level or only slightly sloping (less than 4 percent).
- 88 8. Have soil at the frost line depth for the locality with a bearing capacity of approximately 2,000 pounds
89 per square foot on natural, undisturbed earth.
- 90 9. Accessibility to all public utilities necessary and required for successful operation of the facilities being
91 constructed.
- 92 10. Appropriate local zoning regulations to permit the construction and full use of a facility and to prohibit
93 the establishment of any activities or industries that would adversely affect the operation of the
94 facility.
- 95 11. Uncontaminated land, free from the prospect of hazardous substances that could subject the State or
96 Federal government to liability for response, clean-up, and health costs or for natural resource damage

97 costs, and free from conditions that would prevent or affect the construction, occupancy, and future
98 operation of the facility.

99 12. Not located on a flood plain.

100 13. Price of the property relative to the State of Washington funding for the purpose.

101 **2.3.2 Alternatives Evaluated**

102 **2.3.2.1 No Action Alternative**

103 The No Action Alternative would consist of a decision to not construct a new facility and allow the WAARNG
104 units to continue conducting their operations at the Puyallup and Olympia Armories. By doing so, the units'
105 ability to meet readiness, recruiting, retention and training objectives will continue to be adversely affected
106 due to the lack of adequate facilities that comply with Readiness Center requirements and safety codes. The
107 ability of the units to recruit and retain quality people is directly affected by the facilities they can offer their
108 personnel. Without the proposed new facility, unit morale and personal motivation would be negatively
109 impacted, and the units' ability to assure an emergency and disaster response/shelter will also be negatively
110 affected. It is also costlier to maintain and repair old facilities than to build a new replacement facility, which
111 can provide adequate spaces for training, storage and administrative functions. In summary, this alternative
112 does not meet the WMD's reasonable expectations to own facilities meeting modern training and safety
113 requirements, as well as modern expectations for energy efficiency and other sustainable design attributes.

114
115 Under the No Action Alternative, the purpose of and need for the Preferred Action Alternative would not be
116 met. However, the analysis of a No Action Alternative is required by CEQ regulations and serves as the
117 benchmark against which the environmental, cultural and socio-economic effects of the Preferred Action
118 Alternative can be evaluated.

120 **2.3.2.2 Preferred Action Alternative (Building the TRC at the Kimmie St. Property)**

121 The Preferred Action Alternative would be to construct the new TRC facility at the Kimmie St. property which
122 the WMD purchased from a private individual in April 2015. This site is similar to but much larger in size (~53
123 acres) than the Port of Olympia properties. In its due diligence investigation prior to purchase, the WMD
124 contracted with AHBL, Inc. to perform a civil assessment, wetlands analysis, Mazama pocket gophers survey,
125 geotechnical analysis, and transportation feasibility study. The WMD and its consultants/sub-consultants also
126 reviewed historical data (including past studies, site assessments, and well logs), performed land use code
127 research, and met with officials of the City of Tumwater Community Development Department. As a result of

128 this work, the WMD concluded that development of the Kimmie St. site was permissible, feasible, and
129 achievable within the available project budget.

130
131 The TRC facility was originally proposed to be built in the approximately 12 acres (ac) central portion of the 53-
132 ac property acquired by WMD in April 2015. Additional geotechnical surveys, however, revealed high soil
133 liquefaction potential and low infiltration rates in this section of the site that would entail costly structural
134 mitigation. As such, the WMD conducted further geotechnical studies to explore alternative locations within
135 the 53-ac site that indicated that the northern portion of the site contains soils more suitable for construction
136 and stormwater mitigation.

137
138 Table 2-1 shows a comparison of alternatives showing which alternative met most or all of the screening
139 criteria. The Kimmie St. property alternative meets all the selection criteria and offers the following advantages
140 over other sites considered:

- 141 • The site is near a high concentration of other state agency buildings, as well as within the Tumwater
142 community. The facility would therefore offer excellent meeting and conference facilities in support of
143 multiple agencies, and be potentially available to other public and community groups.
- 144 • While it too has recorded high groundwater (like the nearby Port of Olympia property), its large size
145 would allow for full development of a readiness center and maintenance shop at reasonable cost and
146 without reliance on a third party for addressing stormwater management requirements.
- 147 • The area that would be left undeveloped (except wetlands) can be used by the units to conduct foot
148 training with field navigational equipment.
- 149 • There is sufficient area to meet the flow dispersion and infiltration requirements to manage
150 stormwater and address high groundwater issues for the site.
- 151 • The site is not within or too close to a designated critical habitat area for Mazama pocket gophers, a
152 federally listed species, compared to the Port of Olympia property.

1
2

Table 2-1. Comparison of alternative sites for the construction and operation of the TRC facility.

	In Thurston County, WA	At least 15 ac	Adequate Area	Front at least 1 public street with AFTP requirements met	Access to population centers and highways	Served by public transportation	Free from low-lying areas, steep slopes, etc.	Uniformly contoured terrain (<4%)	Bearing capacity of ~2,000 lbs per SF	Access to all public utilities	Uncontaminated land, no NR restrictions	Not located on flood plain	Price of Land
Alternatives													
No Action	--	--	--	--	++	+	++	++	++	++	++	++	~
Kimmie St. Property	++	++	++	++	++	-	++	++	++	++	-	++	++
Alternatives Ruled Out													
Port of Olympia Property in Tumwater	++	++	++	++	++	-	++	++	~	++	-	++	+
Kaufman Property in Grand Mound	++	++	++	+	+	-	++	++	~	+	-	++	-
Elderberry St. Property in Grand Mound	++	++	++	++	+	-	++	++	~	+	+	++	-
Highway 9 & Highway 99 Property in Grand Mound	++	+	-	++	++	+	++	++	~	++	-	++	++
Recycling Property in Grand Mound	++	++	++	-	+	-	++	++	~	-	-	++	++
Tumwater Commercial Place in Tumwater	++	++	++	++	++	-	++	++	~	++	-	++	+

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5
6

Legend:
 ++ meets screening criteria the best
 + meets screening criteria adequately
 - does not meet screening criteria
 ~ neutral (was not assessed using an engineering method)

1 **2.3.3 Alternatives Eliminated from Further Consideration**

2 In 2013, the WMD and Department of Enterprise Services (DES) identified over a dozen possible sites and
3 considered the two sites as most suitable—Port of Olympia Property in Tumwater, and the Tumwater
4 Commercial Place. In both cases, a mutually acceptable agreement was not reached by the WMD and property
5 owners. Starting in mid-2014 and continuing into 2015, the WMD searched anew for properties within
6 Thurston County that would meet all the siting criteria for a new Readiness Center. A total of seven properties
7 were ultimately identified as potential sites for the construction and operation of the TRC facility, for which
8 rapid environmental assessments were conducted to determine any major environmental constraint(s). Except
9 for the Kimmie St. property, all were quickly eliminated based on zoning or site development restrictions,
10 availability of and proximity to water and sewer service, threatened and endangered species and critical
11 habitats impacts, and/or access (or improvements needed to) transportation and other infrastructure.
12

13 **2.3.3.1 Port of Olympia Property in Tumwater**

14 In 2013, the WMD selected a 20-acre undeveloped parcel subdivided from a much larger group of contiguous
15 properties owned by the Port of Olympia known collectively as the New Market Industrial Campus. This
16 property meets 10 out of 13 screening criteria. However, due to high groundwater issue and limited size of the
17 development area, this property would have been dependent on an off-site infiltration facility to be developed
18 by the Port of Olympia largely at their expense. In 2014, the WMD and the Port of Olympia were unable to
19 reach a mutually acceptable agreement over this property.
20

21 **2.3.3.2 Kaufman Property in Grand Mound**

22 It met 8 out of the 13 screening criteria, however, the price was well beyond the WMD’s budget. The major
23 constraints include the presence of the power lines and the need to develop the existing dirt and gravel roads
24 that would have connected it to paved streets leading to I-5 ramps.
25

26 **2.3.3.3 Elderberry St. Property in Grand Mound**

27 This property met 10 out of the 13 screening criteria. However, the two parcels are owned by separate private
28 individuals so negotiations were difficult, and the owners indicated a price well beyond the WMD’s budget.
29

30 **2.3.3.4 Highway 9 and Highway 99 Property in Grand Mound**

31 The property is strategically located at the corner of two major transportation routes and met 9 out of 13
32 screening criteria. However, the preliminary site investigation revealed that it had both a wetland in the

33 central field area, and Mazama pocket gopher mounds, with habitat present throughout the southern portion
34 of the proposed development footprint. The site would likely have required a habitat conservation plan for
35 gopher management which would have severely limited the available development area for the TRC facility
36 construction and operation. Also, the property had utility connection constraints.

37

38 **2.3.3.5 Recycling Property in Grand Mound**

39 The property met 7 out of 13 screening criteria. The eastern portion of the site has a wetland mapped as
40 Category III and a Type F stream was mapped approximately 500 feet east of the northwest corner of the site.
41 Although pocket gopher mounds were not observed on the site and confirmed pocket gopher habitat was not
42 mapped within 1,000 feet of the site, soils on most of the site were mapped as Indianola loamy sand, which
43 are considered prairie soils that are suitable habitat for pocket gophers.

44

45 **2.3.3.6 Tumwater Commercial Place**

46 This property has all the utilities available, and relevant studies and mitigation that address potential
47 constraints had already been conducted by the property owner. While the property met 10 out of 13 the siting
48 criteria, the WMD and the property owner were unable to reach a mutually acceptable price agreement.

49 **2.3.4 Alternatives' Impacts Comparison Matrix**

50 A comparison of the potential environmental impacts of each of the two alternatives is presented in Table 2-2.

51

52
53

Table 2-2. Summary of the impacts to environmental resources comparing the No Action Alternative with the Preferred Action Alternative.

Resource	No Action Alternative	Preferred Action Alternative
Land Use	No impact attributable to WAARNG action. WAARNG would continue to use inadequate training and administration facilities in existing locations.	No adverse impact. The site for the Preferred Action Alternative had already been zoned Light Industrial. Potentially, long-term positive impact through development of the site in consonance with County and City plans and zoning.
Air Quality	No impact attributable to WAARNG action. Ongoing operations' emissions in existing facilities would continue.	Short-term, less-than-significant adverse impacts due to potential for air emissions/dust generation only during construction activities and the proximity to sensitive receptors. Sensitive noise receptors are Kimmie St. residential community and George Washington Bush Middle School. Long-term, less-than-significant adverse impacts due to increased site emissions, including WAARNG traffic. Would be managed with the implementation of BMPs. Air quality impacts determined to be below <i>de minimis</i> levels for conformity analysis.
Noise	No impact attributable to WAARNG action. Ongoing operations' noise in existing facilities would continue.	Short-term, less-than-significant adverse impacts due to potential for noise generation from construction activities and the proximity to noise receptors. Sensitive noise receptors are Kimmie St. residential community and George Washington Bush Middle School. Long-term, less-than-significant adverse impact due to training noise and WAARNG traffic. Daytime drill occurs only one weekend per month and would not generate significant noise increase than what is currently experienced in the neighborhood. Would be managed with the implementation of BMPs.
Topography, Geology and Soils	No impact attributable to WAARNG action. WAARNG would continue to use inadequate training and administration facilities in existing locations.	No impacts to geology and topography. Short-term, less-than-significant adverse impacts to soils during construction due to grading of a portion of the site. Erosion measures and other applicable BMPs would be implemented during the construction phase based on the conditions in the NPDES permit (Construction Stormwater General Permit). No long-term adverse impacts anticipated.
Water Resources	No impact attributable to WAARNG action.	Short-term, less-than-significant adverse impacts to offsite surface waters due to soil erosion and consequent sedimentation due to grading of a portion of the site during construction. Would be managed with the implementation of BMPs. Long-term, less-than-significant adverse impacts to groundwater due to the site being in an area where there is high groundwater issue and is within a Wellhead Protection Area. An infiltration pond would be constructed for stormwater management. The TRC facility will be sited in the northern portion of the site, which is the least forested, had been previously developed, where soils are more suitable for construction, and groundwater concerns can be readily managed. Impacts would be managed with the implementation of BMPs.

54

55

Table 2-2. Summary of impacts to environmental resources. (cont.)

Resource	No Action Alternative	Preferred Action Alternative
Biological Resources	No impact attributable to WAARNG action.	Less-than-significant adverse impacts due to removal of vegetation and therefore loss of wildlife habitat. Wetlands will be excluded from construction footprint and training area. Potential long-term, less-than-significant adverse impact on Mazama Pocket Gophers due to permanent loss of soils that are suitable habitat for this species. No mitigation measures necessary and impacts would be managed with the implementation of BMPs.
Cultural Resources	No impact attributable to WAARNG action.	No short- and long-term adverse impacts. No cultural or archaeological resources present. Potential for inadvertent discoveries of cultural resources and/or human remains during construction. Would be managed with the implementation of BMPs and following WAARNG Standard Operating Procedure for Inadvertent Discovery.
Socio-economic (including Environmental Justice and Protection of Children)	No impact attributable to WAARNG action.	No short- and long-term adverse impacts to socio-economic resources, such as recreation, population, or housing. Short- and long-term positive impacts to the community due to creation of construction jobs and spending on meals and services. Short-term, less-than-significant adverse impacts to the health and safety of children or minority populations, including Kimmie St. neighborhood and George W. Bush Middle School due to slight increase in noise and traffic during construction activities. Long-term less-than-significant adverse impacts to the health and safety of children and minority populations due to slight increase in traffic from the use of the WAARNG facility. Impacts would be managed with the implementation of BMPs.
Infrastructure	No impact attributable to WAARNG action.	No short- and long-term adverse impacts to utilities as the facility will connect to existing utilities that have sufficient capacity to accommodate water, sewer, waste and other utilities needs of the facility. Short- and long-term less-than-significant adverse impacts to traffic in a limited portion of Kimmie St. Impacts would be managed with the implementation of BMPs. Personnel will be required to use I-5 Exit 101. Daytime drill occurs only one weekend per month. Sufficient parking space for drill soldiers would be present at the facility.
Hazardous and Toxic Materials/Wastes	No impact attributable to WAARNG action.	Less-than-significant adverse impacts. Personnel and construction contractors will follow spill prevention and response procedures as well as all Federal, State, and local laws and procedures, and obtain all necessary permits. Impacts would be managed with the implementation of BMPs.

56

3.0 AFFECTED ENVIRONMENT

The affected environment consists of all resource areas that could be directly or indirectly affected by the Preferred Action Alternative in the short- and long-term. The WAARNG reviewed available information and reports/studies/surveys to identify the resource areas that were reasonably expected to be affected by this Preferred Action Alternative. The WAARNG eliminated geography, climate, wetlands, and riparian vegetation from further impact analysis in Section 4.0 per 40 CFR 1501.7(a) (3). The WAARNG determined that no impacts would occur to these resources based on the assessment of the No Action Alternative and the Preferred Action Alternative. No impacts to wetlands and riparian vegetation are expected from the implementation of the Preferred Action Alternative because all wetlands identified in the property will be excluded from the construction footprint. Although excluded from further analyses in Section 4.0, these resources were presented below to provide information that supports the WAARNG's determination and impact analysis.

3.1 Location Description

Geography and Landscape - The TRC facility project site is located along Kimmie Street SW, due west of the Olympia Regional Airport, and within the municipal boundaries of the City of Tumwater, Thurston County, WA (Fig. 3-1). The site is within Section 15 and a small portion of Section 9, Township 17 North, and Range 2 West. The approximate latitude of the property is 46° 57' 59.8968" N and longitude is 122° 55' 50.9664" W.

Current designated addresses for the site are 8102, 8311 and 8427 Kimmie Street SW, Tumwater WA. The entire property is about 53 ac in size and includes six discrete Thurston County Parcel Numbers 51850000400 (2.08 ac), 51850001200 (35.97 ac), 09230006000 (2.00 ac), 09230019000 (1.49 ac), 09520004000 (1.57 ac), and 09520003000 (9.71 ac) (Figs. 3-1 and 3-2). The site is bordered by Interstate Highway-5 (I-5) on the west, Kimmie St. SW as well as a number of residential properties on the east. The property to the south is currently undeveloped land, and Frontage Road borders the property's northernmost extent. Beyond Frontage Road there is a log sorting yard to the north.

The property is located about 5 miles south of Olympia (Washington State's capital), is between two I-5 interchanges: I-5 Exit 101 (Tumwater Boulevard), located approximately a mile to the north, and I-5 Exist 99 at 93rd Avenue SW (State Route 121), located approximately one mile to the south. It is within the municipal boundaries of the City of Tumwater--the southern gateway to Puget Sound's mega-metropolitan region

33 spanning several counties from Thurston and Pierce to King and Snohomish, including the cities of Tacoma and
34 Seattle. The City of Tumwater is located at the mouth of the Deschutes River, where the river meets the
35 southern tip of Puget Sound. The rugged Olympic Mountains rise in the distance and Mount Rainier can be
36 seen to the east on a clear day.

37

38 **Climate** - Northern Thurston County has a marine warm-temperate climate, with relatively warm, dry summers
39 and typically mild, rainy winters (URS Corp 2001). On average, there are 137 sunny days per year, with average
40 temperatures ranging from 31.5°F to 77°F. Tumwater belongs to a climate region that experiences warm (but
41 not hot) and dry summers, with no average monthly temperatures above 72 degrees Fahrenheit (°F) during its
42 warmest month and an average in the coldest month between 64°F to 27°F or, in some areas, between 64°F to
43 32°F. According to the Köppen Climate Classification system, Tumwater has a warm-summer Mediterranean
44 climate, abbreviated "Csb" on climate maps. In a normal year, Tumwater area gets approximately 51 inches of
45 rain and 18 inches of snowfall.

46

47 **Military Mission** - The Washington Military Department's mission is to minimize the impact of emergencies and
48 disasters on people, property, environment, and the economy of Washington State and the region; provide
49 trained and ready forces for state and federal missions; and provide structured alternative education
50 opportunities for at-risk youth (through the Washington Youth Academy program).

51

52 The WAARNG has both federal and state missions. The WAARNG's federal mission is to maintain properly
53 trained and equipped units available for prompt mobilization for war, national emergency, or as otherwise
54 needed. The state mission is to provide trained and disciplined forces for domestic emergencies or as
55 otherwise required by state laws. The Department of Army (DA), under which the WAARNG operates for its
56 federal mission, also has an environmental mission to sustain the environment to enable the Army mission in
57 perpetuity.

1



Figure 3-1 Proposed TRC Facility Project's Vicinity Map.

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1 **3.2 Land Use**

2
3 **Land Use in the Project Site** - Historically, the property has generally been undeveloped, except for the
4 northern parcels which were developed in the early 1970s. The three northern-western parcels were used by
5 the Portland-Puget Sound Rail Road, but only the gravel rail bed remains, which appears to have been re-
6 graded as an access road, and at one time had a wood-frame storage building. At present, the storage building
7 is gone and only the asphalt parking slab (approximately 14,000 SF) is left. The northern 9.71 ac parcel of the
8 site was used for a number of years for a small trucking and logging company operation, which closed in about
9 1991. It was then used later as a vehicle and equipment storage, and wood waste storage and chipping
10 activities. In mid- to late 1990s, remnants of these past activities were removed from the site, apparently in an
11 effort to support the sale of the property. In 2008, the residential building and two shops beside the building
12 were partially demolished as part of pre-commercial development activities for the site. Remaining structures
13 were abandoned, partially destroyed, and highly dilapidated (well house, fire-damaged shop, residential
14 building, and metal pole barn) on the 9.71 ac (parcel number 09520003000). These structures were completely
15 demolished and all debris removed from the site in September 2015 by a contractor retained by the WMD.

16
17 The southern portion of the site was logged in the past but has partially and naturally reforested, leaving some
18 openings in the central portion of the properties, which today are dominated by shrubs and grasses. That
19 central portion of the 35-acre parcel where the TRC facility is proposed has remained undeveloped throughout
20 the known history of the site.

21
22 According to the Thurston County Assessor's office, the City of Tumwater's Comprehensive Plan land use
23 designation for parcel numbers 51850001200, 09230006000, 09230019000, 0952004000, and 09520003000 is
24 Light Industrial (LI), while parcel number 51850000400 (about 2.7 ac) is Single Family Low Density (SFL)
25 residential. Light Industrial zoning is intended to establish and preserve areas for industrial and other uses of
26 such a nature that they do not create serious problems of compatibility with other kinds of land uses. Although
27 a Readiness Center is not a type of use listed as outright permitted in the LI zone, the City of Tumwater staff
28 (See meeting minutes dated January 22, 2015 in Appendix A) stated that the use for Readiness Center
29 construction and operation is a permitted use that is fully consistent with the intent of Light Industrial zoning.
30 It is the City of Tumwater's interpretation that the Light Industrial designation is essentially a compilation of
31 several allowed uses, such as warehousing, storage, office, etc.--all of which are allowed and consistent with
32 the proposed Readiness Center operation. The SFL zone is intended to provide single-family residential use at a

33 density of four to seven units per acre. The City of Tumwater staff determined that the installation of a
34 roadway for access to the future Readiness Center would be defined as a “support facility,” which is outright
35 permitted in the zone, therefore the use of this property for building an entrance roadway to the new
36 Readiness Center is permissible. Support facilities are defined as facilities such as “streets, roads, highways,
37 sidewalks, street lighting systems, traffic signals, fire stations, electrical switching substations, electrical power
38 transmission towers, natural gas pipelines, telephone exchanges, natural gas gate stations and regulating
39 stations, domestic water systems, storm and sanitary sewer systems, park and ride facilities, and wells or well
40 fields, all of which are continuously related to public (or private) services.”

41
42 **Land Use in Surrounding Areas** - The property is bordered by I-5 on the west; Kimmie Street SW and several
43 residential properties to the east (including a public middle school to the northeast of the property;
44 undeveloped land to the south; and Frontage Road to the far north end of the property). A log processing
45 company is currently operating on the northern side of Frontage Road.

46
47 Potential land use impacts are not expected to occur as a result of the Preferred Action Alternative and further
48 analysis is not included in this EA.

49 **3.3 Air Quality**

50 Air quality is a measure of the amount and distribution of potentially harmful pollutants in
51 ambient air within an area. Congress passed the CAA to mandate that the U.S. Environmental Protection
52 Agency (EPA) regulate those potentially harmful pollutants through the National Ambient Air Quality Standards
53 (NAAQS) for pollutants of concern that can be emitted into the air by stationary sources known as the criteria
54 pollutants. The EPA has identified six criteria pollutants: carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen
55 oxides (NO_x), ozone (O₃), lead (Pb), and particulate matter (PM). These pollutants are primarily emitted from
56 combustion sources such as boilers, emergency generators, and motor vehicles. These standards form a
57 baseline from which to gauge air pollutant emissions across the country in order to gain an understanding of
58 the country’s current air quality, seeking to sustain and improve on it. Each region is designated as an
59 attainment, non-attainment or maintenance area based on the level of compliance with NAAQS. The EPA
60 designates areas that have experienced persistent air quality problems, or if air quality in those areas does not
61 meet the required ambient air quality levels set by the NAAQS as nonattainment areas, for which the CAA
62 requires additional air pollution controls in these areas. Each nonattainment area is declared for a specific
63 pollutant; however, nonattainment areas for different pollutants may overlap each other or share common
64 boundaries.

65

66 Air quality regulations in Thurston County are specifically carried out by the Olympic Region Clean Air Agency
67 (ORCAA). The project site lies within the attainment areas for O₃ and CO, and maintenance/non-attainment for
68 particulate matter (PM₁₀). George Washington Bush Middle School and Kimmie Street residential properties
69 are sensitive receptors in the vicinity of the Preferred Action Alternative. None of the criteria pollutants to be
70 emitted from the TRC facility, when combined with existing background pollutant levels, is expected to
71 substantially contribute to existing or new degradations of air quality in the Kimmie Street and surrounding
72 areas.

73

74 Greenhouse Gases (GHGs) are gases that trap heat in the atmosphere. Sources of these emissions are natural
75 processes and human activities. The most common GHGs emitted from natural processes and human activities
76 include carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Combustion sources are a prime source
77 of these GHG emissions.

78

79 Historically, GHGs have not been regulated pollutants under the CAA. On December 7, 2009, the USEPA
80 Administrator signed a final action finding that six GHGs constitute a threat to public health and welfare and
81 that the combined emissions from motor vehicles cause and contribute to the climate change problem. On
82 April 1, 2010, USEPA and the National Highway Traffic Safety Administration (NHTSA) issued the first national
83 rule limiting GHG emissions from cars and light trucks. The requirements of the GHG light duty vehicle rule
84 took effect on January 2, 2011. USEPA's *Mandatory Reporting of Greenhouse Gases Rule* also became effective
85 on January 2, 2011, requiring large stationary sources in the U.S. to report GHG emission data. In general, the
86 rule, codified in 40 CFR Part 98, requires that facilities that emit 25,000 tonnes (27,500 metric tons) or more
87 per year of GHGs are required to submit annual reports to USEPA. The Washington State passed its own Final
88 Rule effective January 1, 2011 (WAC 173-441) with reporting requirements for facilities exceeding 10,000
89 metric tons of GHG emissions per calendar year to begin on January 1, 2012 to the Washington State
90 Department of Ecology.

91

92 The USEPA tracks hazardous air pollutants in addition to the above criteria pollutants. Hazardous air pollutants
93 are identified as air pollutants that are known to cause or may reasonably be anticipated to cause adverse
94 effects to human health or the environmental. Lead and lead compounds are included on the list of hazardous
95 air pollutants. The proposed project is neither expected to emit any of those hazardous pollutants, nor will it
96 exceed GHGs reporting or regulatory thresholds.

97

98 Emissions from construction activities are generally short-term and result in localized impacts to air quality.

99 Emissions from the additional vehicular traffic, and from operational equipment (generator, heating,

100 ventilation, and air conditioning or HVAC) would be minimal and are not anticipated to affect local or

101 regional air quality. Impacts due to the potential fugitive dust generation from construction activities would

102 be short-term, localized, and would be minimized by the implementation of best management practices

103 (BMPs) for dust control as presented in the required Dust Control Plan (DCP). Example BMPs include

104 watering disturbed and unpaved areas, limiting vehicle speeds on unpaved areas, covering haul trucks with

105 tarps, and stabilizing previously disturbed areas if these will not be actively used for several weeks.

106

107 Title 40 CFR 51 Part 93, General Conformity, requires federal actions to conform to any State Implementation

108 Plan (SIP) approved or promulgated under Section 110 of the CAA. An air conformity applicability analysis, and

109 possibly a formal air conformity determination are required for federal actions in nonattainment or

110 maintenance areas. The WAARNG prepared a Record of Non-Applicability (RONA) in compliance with the

111 General Conformity Rule (40 CFR 6, 51, and 93) (Appendix B). The estimated total direct and indirect emissions

112 from this Preferred Action Alternative are below the conformity threshold values and is not considered

113 regionally significant (*de minimus*) under 40 CFR 93/153(i).

114

115 **3.4 Noise**

116 Noise is any unwanted or unwelcome sound usually caused by human activities and added to the natural

117 acoustic setting of the area. In addition, noise is a sound that disrupts normal activities or that reduces the

118 quality of the environment. The standard unit used to report noise or sound pressure levels is the decibel (dB).

119 The A-weighted frequency scale (dBA) is an expression of adjusted pressure levels by frequency that accounts

120 for human perception of loudness. Noise levels that affect residential receptors (Zone 1) are normally limited

121 to the maximum of 65 dBA during daytime hours and 53 dBA during nighttime hours (between 9 p.m. and 7

122 a.m.) (Table 3-1). Activities that do not meet these noise standards normally require a city or county permit.

123

124 General ambient noise levels are expected to be normal for the already developed areas of Tumwater.

125 Examples of typical noise sources at the project site and adjacent neighborhoods include general light vehicle

126 use, construction activities, lawn maintenance equipment, and vehicles travelling along Kimmie St. and I-5.

127 Noise from many military facilities typically consists of noise from vehicle equipment and tool operations, high

128 amplitude noise from artillery and armor firing, and noise from small arms firing. At National Guard Readiness

129 Centers such as at the proposed TRC facility, noise would be generally light and generated primarily by vehicle
 130 traffic and facility HVAC systems, except during facility construction. Noise generation would occur during
 131 daytime business hours. There would only be limited vehicle movement at and around the facility and that
 132 would not significantly elevate noise levels. No live weapons training will be conducted at the proposed TRC
 133 facility, and there would be no other regular activities conducted at the facility that would produce unusually
 134 high noise levels. General ambient noise levels are therefore expected to be normal for an already developed
 135 area (Appendix C).

136
 137 Ambient noise measurements for typical lightly industrialized areas are around 50 dBA during morning and
 138 evening rush hours dropping a few dBA during nighttime hours. These levels are comparable to outside noise
 139 levels generated in urban centers during daytime hours and common indoor sounds such as the background
 140 noise in a large occupied conference room. Noise levels for heavy construction equipment can be more than
 141 20 dBA higher than typical light industrialized areas depending upon the proximity to the source of the noise
 142 and the type of equipment being used.

143
 144 **Table 3-1. Noise limits for Land Use Compatibility.**

Noise Zone	Population Highly Annoyed	Noise Sensitive Land Use	Small Arms and Transportation Average Daily Sound Level
Zone 1	<15%	Acceptable	<65 dBA
Zone 2	15%-39%	Normally Not Recommended	65-75 dBA
Zone 3	>39%	Not Recommended	>75 dBA

145 Source: U.S. Army 2007. AR 200-1 Environmental Protection and Enhancement

146
 147
 148 **3.5 Topography, Geology, and Soils**

149 The three major controls on soil formation are climate, parent material (the underlying bedrock or
 150 unconsolidated sediment), and topography. Climate controls the rate of soil formation; parent material
 151 controls the composition of the resultant soil; and topography delineates the most conducive areas for soils to
 152 form.

153
 154 Topography, including man-made alterations, affects the distribution and depth of flood waters. The topography
 155 of Thurston County is characterized by low hills on the northwest and southeast separated by a broad, flat plain
 156 that trends northeast to southwest (Thurston County 2004). Tumwater’s topography is primarily flat, except for

157 steep slopes northwest of the Black Lake Boulevard and moderate to steep slopes on either side of the Deschutes
158 River Valley (Thurston County 2009).

159
160 The TRC facility project site gently undulates, sloping downward south to north with grades ranging from 195
161 to 185 feet above sea level (FASL). Because the site is relatively flat in general and nearly none of the soil
162 components or mapping units has high erosion potential, any changes to topography would be negligible and
163 any impacts to soils would be short-term (only during construction stage). Furthermore, potential impacts can
164 be easily addressed by following BMPs to minimize erosion and subsequent sedimentation. As part of the
165 permitting process, the contractor would secure a National Pollutant Discharge Elimination System (NPDES)
166 permit, specifically a Construction Stormwater General Permit (CSWGP), which will require the preparation of
167 Construction Stormwater Pollution Prevention Plan (SWPPP).

168
169 Soil disturbance could result in increased erosion potential from loss of ground cover and exposure of bare
170 soils to precipitation and runoff. Potential impacts would be minimized or avoided by following appropriate
171 BMPs and soil stabilization/revegetation techniques following construction.

172
173 The project site lies north of the Salmon Creek Basin, which consists of mainly two types of glacial upland soils:
174 the Spanaway-Nisqually Association, and the Alderwood-Everett Association (USDA 1990; Thurston County
175 2004). In the Salmon Creek Basin, outwash soils predominate at the surface which means that rain water
176 infiltrates quickly in most parts of the basin. However, soil conditions below the ground are such that this
177 capacity for infiltration is limited. In the project site, the generalized bedrock is reported to consist of stratified
178 sequences of quaternary rocks of the Cenozoic era.

179
180 The type of soil on the property consists of Cagey loamy sand, Everett very gravelly sandy loam, and Norma silt
181 loam. Cagey soils are mapped on the central portion of the site; Everett soils on the northern and
182 southwestern portions; and Norma soils cross diagonally the southwestern portion of the property.

183
184 Cagey loamy sand consists of deep, moderately well-drained soils that formed in sandy glacial drift. These soils
185 are usually moist and reaction is slightly acid or neutral throughout. Everett very gravelly sandy loam consists
186 of very deep, somewhat excessively drained soils that formed in gravelly and sandy glacial outwash. Soil
187 reactive properties range from moderately acid to very strongly acid. Norma silt loam consists of deep, poorly
188 drained soils formed in old alluvium in depressions on glacial till plains and drainage ways. Soil reaction is
189 moderately acid to very strongly acid.

190
191 Cagey and Everett soils were identified by the USFWS as suitable habitats for Mazama pocket gophers, a
192 federally listed species. Likely, the greatest impact that the TRC facility construction and operation will have on
193 pocket gophers is the permanent loss of these soils available as habitat. This impact is discussed in Section 4.0
194 Environmental Consequences.

195
196 In terms of geologic hazards, much of Tumwater, including the proposed TRC facility project site, has a low-to-
197 moderate liquefaction susceptibility based on the liquefaction susceptibility map for the Olympia-Lacey-
198 Tumwater urban area (Palmer *et al.* 1999). However, depth to groundwater table in unit Qvrs (for which much
199 of Tumwater belongs) is both geographically and seasonally variable and is determined by a combination of
200 perching conditions on an underlying impermeable stratum and the regional recharge and flow geometry of
201 the unconfined groundwater system. Although unit Qvrs is typically well-drained soil, groundwater in many
202 areas within this deposit may be quite shallow, and therefore the region may be susceptible to flooding.

203

204 **3.6 Water Resources**

205

206 **Surface Water** - The site does not have any or is not proximate to any surface water. The nearest surface water
207 (Salmon Creek) is approximately 1.2 miles away. The nearest lake (Black Lake) is approximately 2.25 miles
208 away.

209

210 **Groundwater** - The property lies to the north of the Salmon Creek Basin and within an area known to be
211 subject to high groundwater (Fig. 3-3), particularly in a single event in 1999. Salmon Creek Basin is
212 characterized by a series of glacially derived materials that form aquifers and aquitards (URS Corp. 2001;
213 Thurston County 2004). The first geologic layer, the upper aquifer, is 25 to 50 ft thick and consists of well-
214 sorted, loose sand and gravel. This layer rapidly accepts and stores water. Below the layer lies the second layer
215 of dense, compacted sand and gravel, mixed with silts and clays (commonly referred to as "hardpan" or
216 "glacial till"). This hardpan layer typically ranges from 5 to 50 ft, however, its thickness and permeability vary
217 substantially, and it may be absent in some areas. Once rainwater fills the upper aquifer during prolonged wet
218 periods, the water builds up on the surface of the land. Whether this filling of the upper aquifer and resultant
219 flooding occur depends largely on climatic conditions.

220

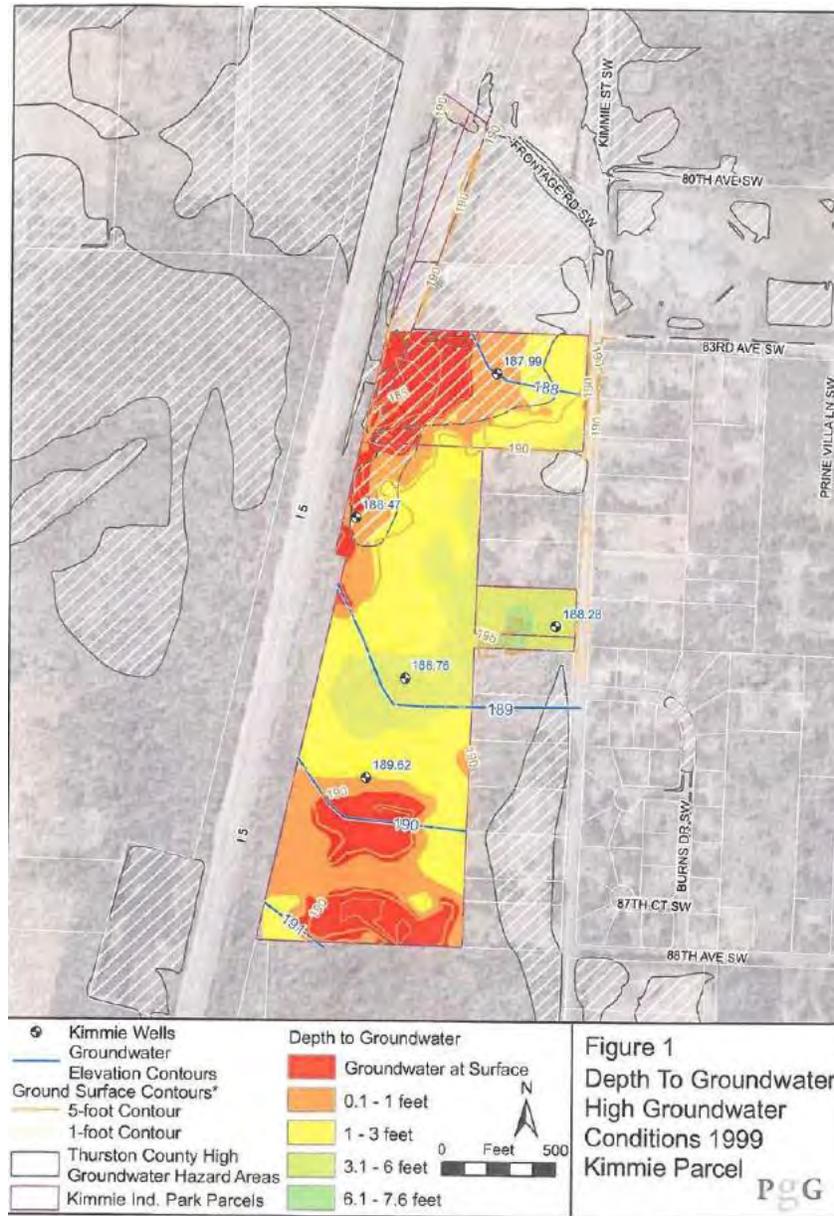


Figure 3-3 Groundwater map for the proposed Tumwater Readiness Center site.

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When a previous property owner of the subject Kimmie Street property proposed a commercial/ industrial development for the site in 2007, Parnell Engineering was hired to conduct a soil evaluation that included excavating six soil test pits and conducting double ring infiltration tests in 2008 (Appendix D-1). Groundwater was observed in two test pits at the time of the 2008 soils and drainage evaluation. Depth to groundwater was 11 ft in the south-central portion and 7 ft in the most northerly test pit. Infiltration rates were generally rapid where unimpeded by water table presence, with rates varying from a low of 5.3 inches per hour (in/hr) to a high of 23.6 in/hr. An average of all the double ring infiltration rates completed resulted in a free drainage

231 infiltration rate for the entire site of 12.75 in/hr. All soil test pits revealed water table indicators suggesting
232 that the project site may have a winter water table that resides at a fairly shallow depth. A regression analysis
233 also showed that all wells on site have projected water levels within six feet of land surface during the
234 historical high water period (recorded on February 25, 1999 when the elevation of the water in one of the 11
235 Thurston County's monitoring wells--LRS-08 located approximately 3,500 ft to the east of the property--was
236 191.899 FASL).

237
238 A groundwater mounding and monitoring study was then completed for the site by Robinson, Noble and
239 Saltbush Inc. also in 2008 (Appendix E). A required linear regression analysis was conducted, and projected
240 high groundwater elevation across the site ranged from 191 FASL in the southwest corner to 188 FASL in the
241 northeast corner. The ground surface on the parcel, based on 2-foot contour intervals, ranged from a high of
242 194 in the west-central portion of the site to 185 in the northwest corner of the site. During a high
243 groundwater event, the groundwater may be at the surface in the northwest corner and at the south end of
244 the aggregated property. The south end of the property is also encumbered with a wetland.

245
246 Similar results were obtained by a linear regression analysis done by Pacific Groundwater Group in 2008 except
247 for some discrepancies in values derived from the regression results. While Robinson, Noble and Saltbush
248 indicated negative value for MW-2 and positive value for MW-5, Pacific Groundwater Group's results indicated
249 the reverse.

250
251 A preliminary grading and drainage feasibility study commissioned by the WMD was conducted by AHBL Inc. in
252 December 2014 to analyze the high groundwater conditions and their impacts on stormwater management
253 facilities and site grading (Appendix F-1). The study found that the maximum separation from groundwater
254 occurs near the central portion of the site, which is not a heavily forested area and was therefore the originally
255 recommended location for the TRC construction and operation project. The existing grades range between 191
256 and 194 FASL and groundwater is at elevation 189 FASL.

257
258 In January 2015, South Sound Geotechnical Consulting also conducted a preliminary geotechnical evaluation
259 for the project site (Appendix G-1). Groundwater was observed in two of the test pits at the time of
260 excavation. Groundwater level was at about 7 feet in test pit TP-10 in the northwest portion of the site, and at
261 about 11 feet in test pit TP-7 in the southwest portion of the planned development area. Iron oxide staining in
262 test pit TP-10 suggests groundwater levels may rise to a depth of about 6 feet. Based on subsurface conditions

263 observed in the explorations completed, all of the site (except for the wetlands) was considered feasible for
264 development from a geotechnical perspective. AHBL Inc. conducted a follow-up stormwater analysis of the
265 pre-design site plan for the property in May 2015 (Appendix H). That study concluded that the use of full
266 stormwater dispersion on this property was feasible and would provide significant cost savings in terms of
267 construction and maintenance over conventional stormwater management structures.

268
269 As the WMD proceeded with due diligence studies, a geotechnical survey later revealed that the central
270 portion of the site has high soil liquefaction potential and low infiltration rates (Appendix G-2). Mitigation
271 options to address these issues would result in significant additional costs to the project. As such, the WMD
272 conducted further geotechnical studies to explore alternative location within the 53-ac site that indicated that
273 the northern portion of the site has soils that are more suitable for construction and stormwater mitigation
274 (Appendices D-2 and F-2). This section of the site is not heavily forested and had already been previously
275 developed. A new stormwater schematic plan and groundwater mounding analysis would be developed for the
276 northern portion once the project proceeds to the design phase.

277
278 The Washington State Department of Health (WDOH) governs all drinking water related issues as tasked by
279 USEPA and a Sanitary Control Area is applied to all drinking water wells per the guidance of WAC 246-290.
280 Individualized Wellhead Protection Areas for each drinking water well are required by WDOH (WAC 246-290-
281 135), and are defined by subsurface geology/hydrology, surface water infiltration rates, and groundwater flow
282 rates. The property is in a Wellhead Protection Area. A Wellhead Protection Area is the surface and subsurface
283 area surrounding the water well or well field of a public water system. Contaminants may move toward the
284 well or well field from this surrounding area over a period of time; accordingly, the City regulates property use
285 to protect water quality. Portions of the property are in the 6-month, 1-year, and 5-year Time of Travel zone.
286 For the new Readiness Center, this means that onsite fueling will likely not be allowed.

287
288 **Floodplains** - EO 11988 requires federal agencies to avoid to the extent possible the long- and short-term
289 adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and
290 indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this
291 objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to
292 minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural
293 and beneficial values served by flood plains in carrying out its responsibilities" for the following actions:

- 294
- Acquiring, managing, and disposing of federal lands and facilities

- 295 • Providing federally undertaken, financed, or assisted construction and improvements
- 296 • Conducting federal activities and programs affecting land use, including, but not limited to, water
- 297 and related land resources planning, regulation, and licensing activities

298

299 Floodplains covered under EO 11988 include the 100-year floodplain, which is that area with a 1 percent or
300 greater chance of flooding in a given year. The Federal Emergency Management Agency (FEMA) Flood
301 Insurance Rate Map (FIRM) for Thurston County WA, Panel 105 of 725, Community-Panel Number 4902090105
302 C (FEMA, 2002), was reviewed to evaluate the potential presence of floodplains on the Preferred Action
303 Alternative site. No 100-year nor 500-year floodplains are mapped on the Preferred Action Alternative site on
304 the FEMA FIRM for this area (Fig. 3-4). Also, the Flood Zone Map in the EDR report and in Thurston County's
305 Geodatabase showed that the property does not reside within any 100-year flood zone. No information
306 regarding the 500-year flood zone was provided in the EDR report.

307

308 **3.7 Biological Resources**

309

310 **Forests and Vegetation** - Forest communities on the southernmost portion of the site had a closed canopy and
311 were dominated by red alder (*Alnus rubra*), big leaf maple (*Acer macrophyllum*), shore pine (*Pinus contorta*),
312 cascara (*Rhamnus purshiana*), with an understory of salmonberry (*Rubus spectabilis*), snowberry
313 (*Symphoricarpos albus*), salal (*Gaultheria shallon*), bleeding heart (*Dicentra Formosa*), hardhack (*Spiraea*
314 *douglasii*), red elderberry (*Sambucus racemosa*), bracken fern (*Pteridium aquilinum*), red currant (*Ribes*
315 *sanguineum*), false-lily-of-the-valley (*Maianthemum dilatatum*) and stinging nettle (*Urtica dioica*).

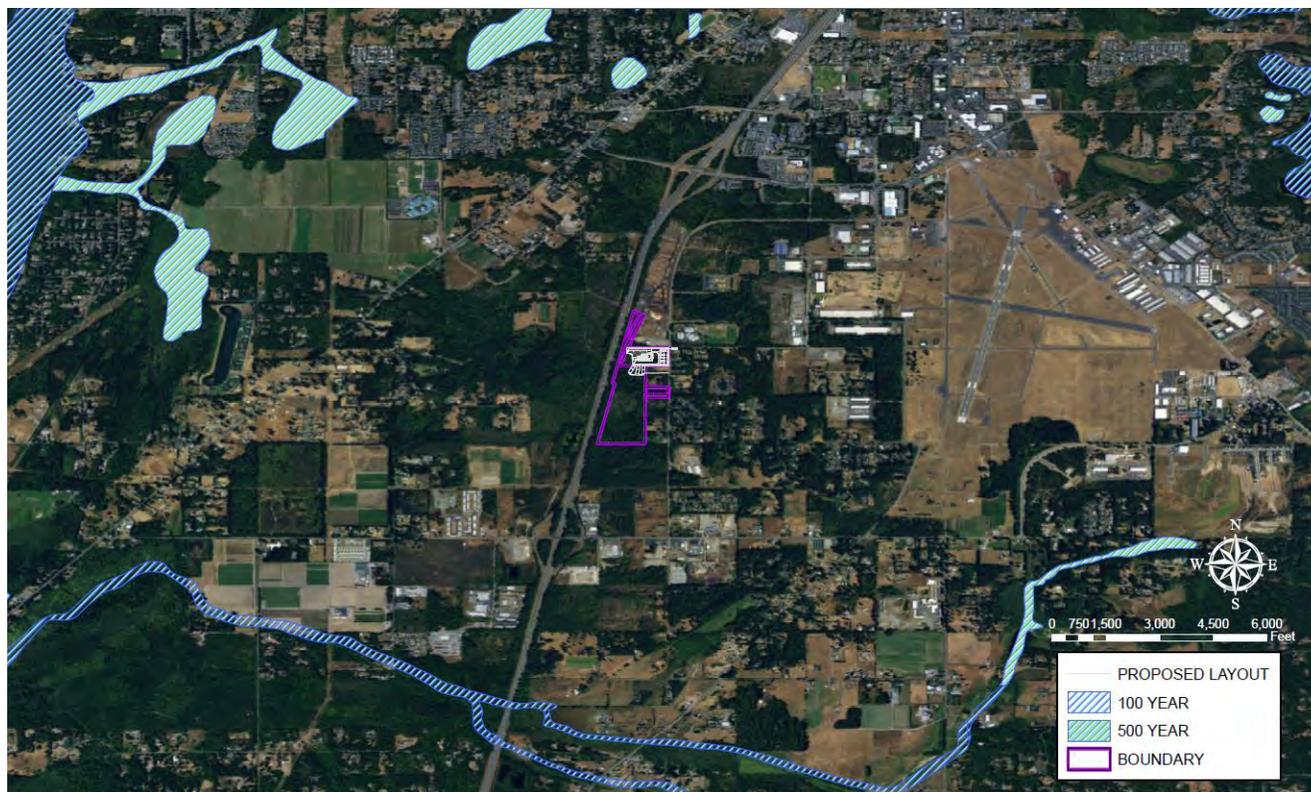
316

317 The western portion of the site running along I-5 had a closed canopy dominated by red alder, big leaf maple,
318 cascara, with an understory of salmonberry, snowberry, salal, bleeding heart, bracken fern, and stinging nettle.
319 A forest opening in the central portion of the southern parcel has historically been cleared. This section is
320 characterized by a vegetative community dominated by dense hardhack, Scot's broom (*Cytisus scoparius*), reed
321 canary grass (*Phalaris arundinacea*) and snowberry. Other shrubs present include stinging nettle, red alder
322 saplings, salal, Himalayan blackberry (*Rubus armeniacus*), crab apple (*Malus fusca*), and scattered cascara
323 saplings.

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Figure 3-4 FEMA Floodplain maps showing that the proposed TRC facility site is not within the 100-yr and 500-yr floodplain areas.

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Older canopy forest on the northern, eastern and north-central portion of the site was dominated by western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), grand fir (*Abies grandis*), big leaf maple, vine maple (*Acer circinatum*) and red alder. Understory vegetation include salmonberry, sword fern (*Polystichum munitum*), salal, trailing native blackberry (*Rubus ursinus*), creeping buttercups (*Ranunculus repens*), Oregon grape (*Mahonia nervosa*), scot's broom, hardhack, red currant, bleeding heart, red huckleberry (*Vaccinium parviflorum*) and bracken fern.

338

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341

The northern parcels that had been partially developed are characterized by a vegetative community dominated by western red cedar, scot's broom, red alder, big leaf maple, heartleaf willow (*Salix cordata*), shore pine, and snowberry.

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345

Wetlands - Riparian or streamside environments are critical linkages and transition zones between the upland and aquatic environments. Riparian zones provide a variety of ecosystem functions, such as fish and wildlife habitat, unique plant species habitat, improved flood control, and trapping of sediment. Although riparian areas comprise only a fraction of the total land area, they have a much higher plant and animal species

346 diversity and biomass per unit area. Higher species diversity can be attributed to the edge effect, where the
347 transition area between aquatic and terrestrial ecosystems offer a broader range of environmental niches in
348 which plants and animals from each ecosystem can occupy/utilize.

349
350 A geocoded map based on National Wetland Inventory maps (USFWS 2014a) did not show wetlands or
351 floodplains at the property or at adjoining sites. However, wetlands are shown within approximately 0.25 mile
352 to the east of the property.

353
354 Wetland delineation for the property was conducted by Skillings and Connolly in April 2007 when a commercial
355 development (Kimmie Street Industrial Park) was considered for the site (Appendix I). No wetlands were found
356 on the property except the wetland system along the southern portion of the site. The property was evaluated
357 again for the presence of wetlands on October 20 and 21, 2014, by Theresa Dusek Consulting (Appendix J). Ms.
358 Dusek found the same wetland identified in the previous survey as a Category III system located in the
359 southern-most portion of the site, which likely extends offsite to the south (Fig. 3-5). In August 2016, PBS
360 Engineering and Environmental was retained to conduct wetlands assessment and delineation in the TRC
361 facility site and identified on the northwest side of the property one slope/depressional wetland that is at least
362 a partially constructed feature and may not be considered jurisdictional (Appendix K). Both wetlands were
363 delineated and rated as Category III wetlands. None of the wetlands would be impacted by the construction
364 and operation of the TRC facility.

365
366 **Fish and Wildlife** - During preliminary field surveys of the proposed Readiness Center site, direct wildlife
367 observations include mountain beaver tunnels, deer tracks/scat, black-capped chickadee, a few mole hills,
368 spotted towhee, red tailed hawk, song sparrow, Stellar's jay, and ruby crowned kinglet. A variety of mammals,
369 birds, amphibians and reptiles are likely to be found throughout the proposed Readiness Center site.

370
371 **Threatened and Endangered Species** - Federally listed threatened and endangered species (Table 3-2) are
372 discussed in this section. More information about these species and determination of impacts are presented in
373 the attached Biological Evaluation (Appendix L) which was last updated on November 16, 2016. The species list
374 did not change between November 15, 2016 and February 21, 2017.

375



Figure 3-5 Map of the location of wetlands on the proposed Tumwater Readiness Center facility site.

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Oregon Spotted Frog - The Oregon spotted frog (*Rana pretiosa*) is a medium-sized frog, ranging from 1.74 to 4 inches in body length (McAllister and Leonard 1997). Females can reach up to 4 inches long and are typically larger than males (Leonard *et al.* 1993). The Oregon spotted frog's dark spots have ragged edges and light centers, which are usually associated with tubercles or raised areas of skin. As the frogs grow older, these spots become larger and darker and the edges become more ragged. Body color also changes with age. Juveniles are usually brown or, occasionally, olive green on the back and white or cream with reddish pigments on the underlegs and abdomen. Adults range from brown to reddish brown, but tend to become redder with age; large, presumably older individuals may be brick red over most of the back. Red increases on the abdomen with age, and the underlegs become a vivid orange-red. Spotted frogs can be distinguished from other native frogs using this red coloration as one of the criteria.

397

Table 3-2. Federally listed species that may be present in the project site.

Common Name	Scientific Name	Federal Status	State Status	Critical Habitat Designation	Potentially Suitable Habitat Within Project Site
Amphibians					
Oregon Spotted Frog	<i>Rana pretiosa</i>	Threatened	Endangered	Proposed	Yes
Birds					
Marbled murrelet	<i>Brachyramphus marmoratus</i>	Threatened	Threatened	Final designated	No
Streaked horned lark	<i>Eremophila alpestris strigata</i>	Threatened	Endangered	Final designated	No
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Threatened	Candidate	Proposed	No
Fishes					
Bull trout	<i>Salvelinus confluentus</i>	Threatened	Candidate	Final designated	No
Flowering Plants					
Golden paintbrush	<i>Castilleja levisecta</i>	Threatened	Endangered	None	No
Kincaid's lupine	<i>Lupinus sulphureus</i> ssp. <i>Kincaidii</i> or <i>Lupinus oregonus</i> var <i>kincaidii</i>	Threatened	Endangered	Final designated	No
Nelson's checker-mallow	<i>Sidalcea nelsoniana</i>	Threatened	Not listed	None	No
Water howellia	<i>Howellia aquatilis</i>	Threatened	Threatened	None	Yes
Mammals					
Olympia pocket gopher	<i>Thomomys mazama pugetensis</i>	Threatened	Threatened	Final designated	Yes
Tenino pocket gopher	<i>Thomomys mazama tumuli</i>	Threatened	Threatened	Final designated	Yes
Yelm pocket gopher	<i>Thomomys mazama yelmensis</i>	Threatened	Threatened	Final designated	Yes

398

399

400

401

402 The Oregon spotted frog is almost always found in or near a perennial body of water (Corkran and Thoms
403 1996; Hayes 1994; and Leonard *et al.* 1993). Habitat includes zones of shallow water and abundant emergent
404 or floating aquatic plants which the frogs use for basking and escape cover (Leonard *et al.* 1993, Corkran and
405 Thoms 1996, McAllister and Leonard 1997). Wetlands associated with lakes, ponds, and slow-moving streams
406 can provide suitable habitat. However, these aquatic environments must include a shallow emergent wetland
407 component to be capable of supporting an Oregon spotted frog population.

408
409 Oregon spotted frogs mature and begin breeding at two or three years of age. Breeding for Oregon spotted
410 frogs occur during late winter or early spring. Oregon spotted frogs are subject to preying during all life stages
411 by a wide variety of predators ranging from invertebrates that prey on eggs, to garter snakes (*Thamnophis*
412 spp.) and herons (family Ardeidae) that feed on adults.

413
414 The Oregon spotted frog has been lost from over 78 percent of its former range (McAllister and Leonard 1997)
415 and continues to decline in terms of population and habitat. This species was listed as threatened on August
416 28, 2014 (USFWS 2014c). Habitat loss, alteration and/or fragmentation resulted from changes in hydrology
417 (from ditch and dam constructions) and water quality, urban development, and livestock overgrazing. Other
418 threats to this species include non-native plant invasions, succession of plant communities from marsh to
419 meadow, and competition with non-native fish and bullfrogs. Exotic invasive plants have altered the character
420 of many wetlands and reduced their value as habitat for Oregon spotted frogs.

421
422 **Marbled Murrelet** – The marbled murrelet (*Brachyramphus marmoratus*) is a robin-sized seabird that inhabits
423 shallow coastal areas from the Aleutian Islands of Alaska, south to central California (WDFW 2012). In breeding
424 plumage, adults are cryptically colored in brown with white “marbling”; hence the name. Marbled murrelets
425 have the unique behavior of foraging in marine waters and flying inland to nest in large conifer trees. The small
426 size, dark coloration, and fast flight speed during low ambient light make marbled murrelets difficult to
427 observe during their flights over land. Marbled murrelets feed primarily on fish and invertebrates, thus, they
428 require nearshore marine habitats with sufficient prey resources (USFWS 1997a). Marbled murrelets spend
429 most of their lives on the ocean, and come inland to nest, although they visit some inland forests during all
430 months of the year.

431
432 On October 1, 1992, the USFWS listed the marbled murrelet as federally threatened species under the ESA in
433 Washington, Oregon and California, primarily due to declining population trends and loss of old forest nesting

434 habitat from commercial timber harvesting (USFWS 1992). In 1996, the USFWS designated critical habitat
435 considered essential to the conservation of the species in these states. In Washington, all critical habitat was
436 designated on federal lands. A Marbled Murrelet Federal Recovery Plan was prepared with the aim of
437 stabilizing the population at or near current levels by maintaining or increasing productivity and removing or
438 minimizing threats to survivorship (USFWS 1997a).

439
440 In 1993, the marbled murrelet was listed as threatened in Washington State (WAC 232-12-001), and in 1997
441 the Department of Natural Resources enacted permanent State Forest Practices Rules for the species (WDNR
442 1997). The rules require forest landowners owning more than 500 acres within 50 miles of marine waters to
443 identify potential nesting habitat and conduct surveys to detect murrelets before any modification or
444 alteration of habitat could take place. If surveys determine there is a high likelihood that nesting is present in a
445 stand, the contiguous habitat is designated “occupied” and is protected from harvest (WDNR 1997).

446
447 Federal status reviews led by the USFWS (McShane et al. 2004, USFWS 2009) have retained the listing status as
448 federally threatened. This was supported in part by collection of murrelet blood samples from Washington and
449 Oregon (Bloxtton and Raphael 2009). The analyses of these samples confirmed an earlier finding that murrelets
450 from the main genetic unit, eastern Aleutians to northern California, are genetically distinct from peripheral
451 populations in the west-central Aleutian Islands and from central California (Piatt et al. 2007).

452
453 **Streaked Horned Lark** - The streaked horned lark (*Eremophila alpestris strigata*) is a rare subspecies of the
454 horned lark that breeds and winters in Oregon and Washington (Pearson *et al.* 2005). In Washington, the
455 streaked horned lark nests on grasslands and sparsely vegetated areas at airports, sandy islands and coastal
456 spits (WDFW 2012). The streaked horned lark was once abundant on Puget Sound prairies, but has become
457 increasingly rare with the decline in habitat and is now restricted to a few large open grassland sites in
458 Washington. Recent studies have found that streaked horned larks currently breed on six sites in the south
459 Puget Sound, four of which (13th Division Prairie, Gray Army Airfield, McChord Field, and 91st Division Prairie)
460 are on Joint Base Lewis-McChord (JBLM). Small populations of larks also breed at the Olympia Regional Airport
461 and the Port of Shelton’s Sanderson Field (airport) (Pearson and Altman 2005; Pearson *et al.* 2008).

462
463 As with most grassland-associated birds, the streaked horned lark has experienced a substantial decline across
464 their ranges in the past three decades (Sauer *et al.*, 2012). Streaked horned larks were federally-listed as
465 threatened with critical habitat on November 4, 2013. Agricultural and urban development, successional

466 changes to grassland habitat, and the spread of invasive plants have particularly resulted in the loss,
467 conversion, and degradation of habitats. Prairie habitat continues to be lost, especially due to residential
468 development (Stinson 2005) that removes native vegetation, excavates and grades surfaces, and converts
469 areas to non-habitat (buildings, pavement, other infrastructure). Residential development is associated with
470 increased infrastructure such as new road construction, which is one of the primary causes of landscape
471 fragmentation (Watts *et al.* 2007). Activities that accompany low-density development are correlated with
472 decreased levels of biodiversity, mortality to wildlife, and facilitated introduction of nonnative invasive species
473 (Trombulak and Frissell 2000; Watts *et al.* 2007). In the south Puget Sound region, where most of western
474 Washington's prairies historically occurred, less than 10 percent of the original prairie persists, and only 3
475 percent remains dominated by native vegetation (Crawford and Hall 1997). In the remaining prairies, many of
476 the native bunchgrass communities have been replaced by nonnative pasture grasses (Rogers 2000), which
477 larks avoid using for territories and nest sites (Pearson and Hopey 2005).

478
479 **Yellow-Billed Cuckoo** – The yellow-billed cuckoo is a slim, long-tailed bird about the size of a robin, with brown
480 upper parts and a white underbelly. Its tail is white with large scalloped black bars on the underside. This
481 species features unmarked grayish brown upper plumage, white underparts, large reddish brown wing
482 patches, a long brown tail marked with bold white spots, and a mostly yellow bill. In the breeding range,
483 yellow-billed cuckoos prefer open lowland deciduous woodlands with clearings and shrubby vegetation,
484 especially those near rivers and streams (Hughes 1999). In western North America, there is a strong preference
485 for large continuous riparian zones with cottonwoods and willows. Riparian habitat is preferred where
486 conditions are cooler and more humid than in the surrounding environment (USFWS 2014d). Western yellow-
487 billed cuckoos generally forage within the tree canopy, and the denser foliage are preferred for foraging
488 (Laymon and Halterman 1985).

489
490 Yellow-billed cuckoos nest in deciduous woodlands associated with wetlands or streams. Yellow-billed cuckoos
491 feed on grasshoppers, caterpillars, beetles and other insects (Dillinger 1989). The yellow-billed cuckoo is a shy
492 bird, requiring aerially extensive contiguous patches of cottonwood/willow forest, which is lacking in the
493 project area. Cottonwood/willow forest communities, which the yellow-billed cuckoo requires as habitat, are
494 absent in the project site.

495
496 The yellow-billed cuckoo was listed as threatened on November 3, 2014. Critical habitat designation is still
497 being determined. Reasons behind the decision to propose the western yellow-billed cuckoo as a threatened

498 species under the ESA include the present or threatened destruction, modification, or curtailment of yellow-
499 billed cuckoo's habitat or range, and other natural or manmade factors affecting its continued existence
500 (USFWS 2014d). Specifically, declines in yellow-billed cuckoo populations are usually attributed to loss of
501 willow and cottonwood forests in which the yellow-billed cuckoo nest; destruction, modification, and
502 degradation of riparian habitats; land use conversion to agriculture; flow management/diversions; urban and
503 transportation infrastructure development; stream channelization and stabilization; and the increased
504 incidence of wildfires. These factors contribute to habitat fragmentation and conversion to habitats that
505 become dominated by nonnative plant species. In addition, the rarity of habitats suitable for cuckoos and
506 isolation of populations put the species at an increased risk for further population declines.

507
508 **Bull Trout** - Bull trout (*Salvelinus confluentus*) are native to the Pacific Northwest and western Canada. Bull
509 trout are actually a char, closely related to lake trout and brook trout rather than rainbow or cutthroat trout
510 (WDFW Fact Sheet no date). Like lake trout and brook trout, their most obvious distinctive feature is light spots
511 on a dark background, unlike rainbow and cutthroat that have dark spots on a lighter background. Their back
512 and sides are olive-green with pale spots about the size of their eye pupils. The head and mouth are unusually
513 large and their ventral fins have white leading edges.

514
515 Bull trout exhibit both resident and migratory life-history strategies that can vary by individual population
516 throughout much of their current range (Rieman and McIntyre 1993). Resident bull trout complete their life
517 cycles in the tributary streams in which they spawn and rear, and their size remains small. Migratory bull trout
518 spawn in tributary streams, and juvenile fish rear from 1 to 4 years before migrating to lake, river, or saltwater
519 habitats to mature (Fralely and Shepard 1989; Goetz 1989). Those fish are generally larger. Some migrate into
520 lakes or reservoirs then back to their natal stream or river to spawn. The varying life histories have an influence
521 on maximum size, from 10 to 12 inches to over 30 inches and many pounds in weight.

522
523 The Coastal/Puget Sound bull trout population segment encompasses all Pacific Coast drainages within
524 Washington, including Puget Sound. This population segment is discrete because the Pacific Ocean and the crest
525 of the Cascade Mountain Range geographically segregate it from subpopulations. The population segment is
526 significant to the species as a whole because it is thought to contain the only anadromous forms of bull trout in
527 the contiguous United States, thus occurring in a unique ecological setting.

528

529 The bull trout was federally listed as threatened throughout its entire range in the coterminous United States on
530 November 1, 1999 (USFWS 1999a). Critical habitat was designated in October 2004 (USFWS 2004), and revised
531 in October 2010 to include 19,729 miles of streams and marine shoreline and 488,252 acres of lakes and
532 reservoirs in Washington, Oregon, Nevada, Idaho, and Montana (USFWS 2010). Bull trout is believed to have
533 declined throughout 50% of its range (USFWS Species Fact Sheet no date). The decline of bull trout is primarily
534 attributable to habitat degradation and fragmentation, blockage of migratory corridors, poor water quality, past
535 fisheries management practices, and the introduction of non-native species.

536

537 **Golden Paintbrush** - Golden paintbrush is a perennial herb in the figwort or snapdragon family
538 (Scrophulariaceae). It often has from 5-to-15 unbranched stems (USFWS Species Fact Sheet no date). The
539 stems may be erect or spreading, in the latter case giving the appearance of being several plants, especially
540 when mixed with tall grasses. Plants grow up to 12 inches tall, and are covered with soft, somewhat sticky
541 hairs. The lower leaves are broader, with 1 to 3 pairs of short lateral lobes near the terminal third. The showy
542 bracts, which effectively hide the flowers, are about the same width as the upper leaves, softly hairy and
543 sticky, and are golden yellow.

544

545 Golden paintbrush is short-lived and individual plants generally do not survive longer than 5-to-6 years.
546 Because vegetative spread has never been observed or reported, it is believed that this species reproduces
547 exclusively by seed. Flowering occurs as early as February, and observed into the summer. The fruit is a
548 capsule, which matures in August; by mid-summer, the plants senesce, although some plants produce shoots
549 in the fall that overwinter. Capsules persist on the plants well into winter. There is not enough documentation
550 on reproduction, although it is believed that seeds are shaken from the seed capsules and fall a short distance
551 from the parent plant. The seeds, being light-weight could possibly be dispersed by the wind.

552 Habitat descriptions for golden paintbrush are based on those extant populations in Washington and British
553 Columbia. Golden paintbrush occurs in upland prairies, on generally flat grasslands, including some that are
554 characterized by mounded topography. Low deciduous shrubs are commonly present as small to large thickets.
555 In the absence of fire, some of the sites have been colonized by trees, shrubs, and invasive exotic weeds.

556 Golden paintbrush was listed as threatened on June 11, 1997 (USFWS 1997b). Threats to golden paintbrush
557 include habitat modification as shrub and forest lands encroach on prairies and grasslands; development for
558 commercial, residential, and agricultural use; low potential for expansion of golden paintbrush populations and
559 their refugia because existing habitat is constricted; and recreational picking and herbivory.

560

561 **Kincaid's Lupine** - Kincaid's lupine belongs to the pea or legume family (Fabaceae). This perennial species has
562 how growing habit (16-30 inches), produces aromatic flowers borne in unbranched flower stalk (USFWS 2015).
563 Flowering stems normally exceed the height of the branched crown. It produces seeds in fruits that open
564 explosively upon drying.

565

566 Habitats of this species includes upland prairies and oak savanna but can also be found on disturbed sites such
567 as roadcuts or ditches and steep south-facing slopes and barren rocky cliffs (USFWS 1999b). Historically, it has
568 been documented in the Southwest Washington state physiographic province, particularly in Lewis County.

569

570 Kincaid's lupine has been listed as Threatened without critical habitat on June 25, 2000 (USFWS 2000). This
571 species is the primary larval host plant of the federally endangered Fender's blue butterfly (*Icaricia icarioides*
572 *fenderi*). Habitat loss has been the largest cause of Kincaid's lupine's decline especially because most habitats
573 are located on private property, with only a few properties providing adequate protection or that are managed
574 to maintain the species over time.

575

576 **Nelson's checker-mallow** - Nelson's checker-mallow is a perennial herb belonging to the mallow family
577 (Malvaceae). The plant produces lavender to deep pink flower that form clusters at the end of short stalks.
578 Fruiting season occurs in mid-June to mid-October. While seeding is the primary mode of reproduction, this
579 plant can also reproduce by rhizomes.

580

581 This species grows primarily in open areas with little or no shade and does not tolerate shading by woody
582 species. It occurs most frequently in Oregon ash swales and meadows with wet depressions as well as in
583 wetlands within remnant prairie grasslands. It can also be found in disturbed sites such as roadsides at stream
584 crossings.

585

586 On February 12, 1993, Nelson's checker-mallow was federally listed as Threatened without critical habitat
587 (USFWS 1993). As many as 24 distinct threats to this species were identified in the USFWS' Final Recovery Plan
588 (2010), with habitat loss as the most prevalent one. The Recovery Plan emphasizes maintenance of
589 populations on permanently protected areas with conservation-oriented management plans in place.

590

591 **Water Howellia** - Water howellia is a branched, aquatic annual with numerous, almost linear leaves that are 1
592 to 2 inches long. Leaves are mostly alternate, although sometimes sub-opposite or whorled. Flowers are very
593 small, white, and irregular. Only those flowers that reach the surface of the water open, while those that
594 develop underwater remain closed. Both form mature fruits. Calyx lobes are pointed, and are persistent in
595 fruit. Capsules are up to 0.5 inch long. Seed germination occurs in the fall and the plants over-winter as
596 seedlings. Plants begin active growth from March to May, with the underwater flowers beginning to form soon
597 after. Flowering and fruit development can occur well into the summer months, depending on weather
598 patterns. Fruit development begins in mid-April. The plant can be identified between May 25 and July 30
599 (WSDOT 1999). Water howellia reproduces entirely by seed (USFWS 1996b).

600
601 Water howellia's dominant habitat is freshwater wetlands and ponds that consists of firm consolidated clay
602 and organic sediments that occur in association with ephemeral glacial pothole ponds and former river
603 oxbows. These wetlands seasonally fill up with water in the fall and dries up in summer. The plant's
604 microhabitats include open shallow water, and the edges of deep ponds that are partially surrounded by
605 deciduous trees (Shelley and Moseley 1988). The species requires exposure to air to germinate, and inundation
606 for growth in the spring. This life requirement restricts the species to grow at pond edges or zones within
607 wetlands that are seasonally inundated, but dries out in late summer and fall (USFWS 1996).

608
609 Water howellia is endemic to the Pacific Northwest, with current known distribution including Washington,
610 Oregon, Idaho, Montana, and California (Mincemoyer 2005). It is known historically from northern California,
611 western Oregon, western and eastern Washington, northern Idaho and northwestern Montana (Shelley and
612 Mosely 1988). In western Washington, numerous populations are found on JBLM, as well as one population in
613 Clark County, across the Columbia River from the location of the first known collection of the species in
614 Multnomah County, Oregon.

615
616 Water howellia was listed as a threatened species on August 15, 1994 (USFWS 1994). The primary factors
617 contributing to the species status are the low number of populations, the loss of habitat, the presence of
618 threats at most sites, and its taxonomic distinctness as the only member of its genus. The most significant
619 threats and management concerns are changes in wetland hydrology, an increase in fast growing weed
620 species, threats of invasion by noxious weeds, livestock grazing, and timber harvest activities on adjacent
621 uplands.

622

623 **Mazama Pocket Gophers** - The Mazama pocket gopher (*Thomomys mazama*) is one of the smallest of 35
624 species in the pocket gopher family (Stinson 2013). These rodents have forelimbs that are modified for digging,
625 and external cheek pouches in which they transport food. Mazama pocket gophers are named after Mt.
626 Mazama, the volcano that exploded 6,000 years ago to form Crater Lake, where the species was first found.
627 Mazama pocket gophers differ from most other gopher species by their small size. They differ from the similar-
628 sized northern pocket gopher (*Thomomys talpoides*) of eastern Washington in their tooth and skeletal
629 characteristics, and a larger dark patch of fur behind their ears. The fur of Mazama gophers is also generally
630 red-brown, whereas Northern pocket gophers are typically yellow-brown or gray-brown.

631
632 Mazama pocket gophers serve important functions in our prairie ecosystems. Pocket gophers have been called
633 “keystone species” and “ecosystem engineers” because they benefit grassland communities in many ways,
634 affecting the presence and abundance of plants and other animals (Stinson 2013).

635
636 Geographically, Mazama pocket gophers are currently found in Clallam, Mason, Thurston and Pierce Counties
637 in Washington State. Historically, *T. m. tacomensis* was also found around Tacoma and *T. m. couchi* in
638 Wahkiakum County, but those appear to be extinct. Gophers are commonly found in areas with sandy loam
639 soils, are rare in very stony soils, and have not been found in heavy clay soils. Most pocket gopher populations
640 are found in grasslands or on land that historically was prairie. In Washington State, pocket gophers have
641 occasionally moved into recent clearcuts adjacent to grassland sites, but otherwise are essentially absent from
642 forest habitats.

643
644 The habitat type for the Olympia pocket gopher (*Thomomys mazama pugetensis*) was the prairie on and
645 around the Olympia Airport, known as Bush Prairie (Dalquest and Scheffer 1944). Gophers continue to occupy
646 this area. Soil series and soil series complexes in and around this area that may support Mazama pocket
647 gophers include Alderwood, Cagey, Everett, Indianola, McKenna, Nisqually, Norma, Spana, Spanaway-Nisqually
648 complex, and Yelm.

649
650 Four subspecies of Mazama pocket gophers had been listed as Threatened on May 9, 2014 under the
651 Endangered Species Act (ESA) (USFWS 2014b). The four subspecies-- the Olympia (*Thomomys mazama*
652 *pugetensis*), Roy Prairie (*T.m.glacialis*), Tenino (*T. m. tumuli*) and Yelm (*T. m. yelmensis*) pocket gophers -- are
653 found only in Washington State in Thurston and Pierce counties. Under the ESA, Mazama pocket gophers in
654 Thurston and Pierce counties are protected from “take,” which under federal law means to “harass, harm,

655 pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” It may
656 also include significant habitat modification or degradation if it kills or injures wildlife by significantly impairing
657 essential behavioral patterns including breeding, feeding, or sheltering. However, the USFWS finalized a special
658 rule under section 4(d) of the ESA that allows for continued farming and ranching activities, routine
659 maintenance at airports and road right-of-ways, and certain activities on non-commercial, single-family
660 residential properties.

661

662 Mazama pocket gopher mounds can be distinguished from mole hills by a less conspicuous, fan-shaped, or
663 irregular piles with the entry hole off to one side, and the presence of a dirt plug within the mound (Stinson
664 2013; ESA Adolfson 2008). According to the occupancy modeling conducted by WDFW in 2011, detection of
665 pocket gophers is highest from September to October, six times greater than the detectability from March to
666 May, and about two times greater than in November (Olson 2011).

667

668 In April 2008, the previous property owner retained the services of ESA Adolfson to survey for presence of
669 Mazama pocket gophers in this site (Appendix M). No Mazama pocket gopher mounds were identified and
670 only small, disturbed patches of potential habitat for pocket gophers were observed. Possible reasons were
671 provided by the researchers as to why pocket gopher habitat is limited or is absent on the site. First, pocket
672 gophers require well-drained soils for their burrow systems and nests (Stinson 2005). High groundwater areas
673 were mapped on the north half of the site and hydric soil mapped on the south portion of the site indicating
674 that most of the site is not likely well-drained soils suitable for pocket gophers. Second, most of the site is
675 forested. Pocket gophers depend upon abundant forbs and grasses found in prairie habitats and are not
676 usually found in closed canopy forest habitats like those present in this site.

677

678 In September 2014, Theresa Dusek Consulting evaluated the site again for the presence of Mazama pocket
679 gophers. Prairie soils are mapped over the north and central portion of the site; however, these areas are
680 dominated by existing structures or shrub/invasive weeds habitat. Pocket gopher mounds were not observed
681 on the site. The USFWS biologist also visited the site in July 2015 and did not find any federally listed species or
682 critical habitat present.

683

684 **3.8 Cultural Resources**

685 NEPA requires the consideration of “important historic, cultural, and natural aspects of our national heritage”.
686 Cultural resource includes historic properties, as defined in the NHPA; cultural items, as defined in the

687 NAGPRA; archaeological resources, as defined in the ARPA; historic and paleontological resources, as defined
688 by the Antiquities Act; sites that are scientifically significant, as defined by the Archaeological and Historic
689 Preservation Act (AHPA); sacred sites, as defined in EO 13007, to which access and use is provided under the
690 AIRFA; and collections, as defined in 36 CFR Part 79 (Curation of Federally Owned and Administered
691 Collections). Consideration of cultural resources under NEPA includes the necessity to independently comply
692 with the applicable procedures and requirements of other federal and state laws, regulations, EOs, presidential
693 memoranda, and ARNG guidance.

694
695 The NHPA of 1966, as amended (Public Law 89-655; 16 USC 470), establishes the policy of the federal
696 government to provide leadership in the preservation of historic properties, and administer federally owned or
697 controlled historic properties. Section 106 of the NHPA requires federal agencies to consider the effect an
698 undertaking may have on historic properties. Its implementing regulations (36 CFR Part 800) describe the
699 procedures for identifying and evaluation historic properties; assessing the effects of federal actions on historic
700 properties; and consulting to avoid, reduce or minimize adverse effects. As part of the Section 106 process,
701 agencies are required to consult with the SHPO. The Section 106 process requires each undertaking to define
702 an Area of Potential Effect (APE). An APE is the “geographic area or areas within which an undertaking may
703 directly or indirectly cause changes in the character or use of historic properties, if any properties exist (and
704 the APE) is influenced by the scale and nature of an undertaking, and may be different for different kinds of
705 effects caused by the undertaking” (36 CFR 800.16[d]). The Preferred Action Alternative is an undertaking as
706 defined by 36 CFR 800.3, and is required to comply with Section 106 of the NHPA.

707
708 **Cultural Resources at the Project Site** - CRC Consultants conducted a survey of cultural and archaeological
709 resources in August 2015 (Appendix N). No previously recorded cultural or archaeological resources were
710 found within the project boundary. The documented history of previous modern logging operations and other
711 past ground disturbing activities suggests that the entire site has low to moderate potential to contain intact
712 archaeological resources.

713
714 Records review, SHPO and Tribal consultation and archaeological survey showed that there are no tribe-
715 sensitive areas, traditional cultural properties, or tribal resources on the proposed TRC facility project site.
716 Therefore, the implementation of the Preferred Action Alternative is not expected to have any adverse effect
717 on protected tribal resources, tribal rights, or Indian Land. The SHPO and seven Tribes with potential interest in
718 the proposed project site were consulted beginning in March 2015, and those that responded concurred on

719 the WAARNG's determination of No Historic Properties Affected (See Appendix A for documentation of the
720 consultation efforts).

721

722 **Native American Considerations** - Consultation with Native American tribes or nations is required under the
723 provisions of the NHPA regulations, 36 CFR Part 800, revised rules effective August 5, 2004, and the NAGPRA
724 and its implementing rules. Tribes that may have an interest in the cultural and archaeological resources that
725 may be present in the project site have been contacted and provided with the cultural resources survey report
726 prepared by the CRC. Records of Native American consultation are presented in Appendix A.

727

728 **3.9 Socio-economic (Including Environmental Justice and Protection of Children)**

729

730 **Socio-economic** - In 2013 population estimates, Tumwater had a total population of 18,511 persons. The racial
731 make-up of the population was 77.5% White, 5.1% Hispanic or Latino, 4.3% Asian, 4.1% Black/African-
732 American, 1.7% American-Indians, with the remainder (7.4%) from two or more races or some other race
733 alone. Tumwater had a total of 7,762 households, with an average household size of 2.27 persons. The
734 population was approximately 55% homeowners and 45% renters. Persons under 18 years old comprise 21.7%
735 of the total population. Persons with Bachelor's degree or higher comprise 49.4% of the total population. The
736 median income for a household in Tumwater was \$59,917. Approximately 10.6% of the population was below
737 poverty line.

738

739 All of the site modifications that would be brought about by the implementation of the Preferred Action
740 Alternative would occur within the boundaries of the TRC facility project site. There would be no direct
741 construction or operations outside of the property boundaries, except for the City of Tumwater's requirement
742 to provide sidewalks and necessary improvements where the facility entrance would be built. Also, the
743 property is vacant and there are no residents in the site.

744

745 **Environmental Justice and Protection of Children** - An analysis of the potential impacts to children and
746 minority populations of the proposed TRC facility project is required in accordance with EO 13045, Protection
747 of Children from Environmental Health Risks and Safety Risks (April 21, 1997). EO 12898: Federal Actions to
748 Address Environmental Justice in Minority and Low-Income Populations (February 11, 1994) requires an
749 assessment of whether the Proposed Action or its alternatives would have disproportionately high or adverse
750 human health or environmental effects on minority or low-income populations. No specific concentrations of

751 minority populations are in the project's vicinity, and no local groups are known to principally rely on wildlife
752 for subsistence. Consequently, no adverse effects to minority or disadvantaged segments of the population are
753 anticipated. No jobs would be lost and no one would be displaced as a result of implementing the TRC facility
754 project.

755

756 Within the area immediately abutting the proposed project location, there is a residential area and a middle
757 school nearby. The Salmon Creek Neighborhood Association representative voiced a concern about the safety
758 of children and adults walking, running, and biking along Kimmie St. as well as to and from George Washington
759 Bush Middle School, which is located at the intersection of Kimmie St. and 83rd Avenue SW, just across the
760 existing gated entrance to the TRC facility project site. The WAARNG determined that the addition of up to 25
761 personnel is not expected to cause safety issues different from what currently occurs in the neighborhood
762 streets. Kimmie St. is already being used by commercial vehicles/trucks and has a speed limit of 35 mph.
763 Currently, no public bus route serves Kimmie St.

764

765 **3.10 Infrastructure**

766 Infrastructure resources include potable water supply, solid waste disposal, energy sources, stormwater
767 treatment facilities, and transportation systems.

768

769 **Utilities** - Adequate utilities exist at or very proximate to the proposed site. Electrical power is available from
770 overhead power distribution from Puget Sound Energy. It is anticipated that power for the proposed project
771 will require 480-v 3-phase. An underground feed from the utility will be included in site utility development.

772

773 The City of Tumwater provides water for the proposed site. A 16-inch polyvinyl chloride (PVC) municipal water
774 main is in Kimmie Street SW. New 8-inch mains will need to be provided to serve the site. Water for domestic
775 use and fire protection must be provided in accordance with current City codes for new construction. Domestic
776 use flow rate requirements are provided readily if fire flow is available (fire flow rates are significantly larger).

777

778 Pressure for domestic use must provide adequate pressure to supply plumbing fixtures at the top floor of the
779 proposed building. The City indicates that static pressure and flow at the site will be adequate for the
780 proposed construction. Water for fire protection is established in the International Building Code (IBC) by
781 reference to National Fire Protection Association (NFPA) and International Fire Code (IFC). Fire flow is based on
782 building size and construction type.

783

784 The City of Tumwater provides sanitary sewer service to the site from a 12-inch PVC sanitary main located
785 along Kimmie Street SW. New 8-inch piping will need to be provided to serve the site. This main is
786 approximately 12 ft deep at the likely point of connection – working upslope this suggests a finished ground
787 floor elevation of 191 ft assuming the sewer at its shallowest point is 5 ft deep.

788

789 There are no established stormwater utility services or conveyance system at the proposed site. The planned
790 development includes creation of a large quantity of impervious area. The civil due diligence report
791 recommends sheet flow dispersion of rainwater from pavements into native vegetated areas (Appendix H).
792 While this is likely the most cost-effective strategy, the use of pervious paving for POV parking may be
793 explored in the design phase as an alternate strategy and as a means of achieving LEED credits. Roof runoff will
794 be directed to bio-retention ponds or swales for on-site infiltration.

795

796 Natural gas is the desired fuel source for heating and cooling. Gas service is provided to the site by Puget
797 Sound Energy (PSE) through a 4-inch main located in Kimmie Street SW. The Military Department will be
798 responsible for the construction and maintenance of services downstream of the master meter to the building.

799

800 Telephone service is provided to the site by Century Link. On-site distribution will be the responsibility of the
801 Military Department. Owing to the proximity of the Olympia Regional Airport, any radio towers may require
802 review and approval of the Federal Aviation Administration (FAA).

803

804 The closest source of fiber optic cable is Tumwater Boulevard. Fiber optic cable is required at the project site.

805

806 The TRC facility project would not result in a significant increase to the population in the community (only up
807 to 25 personnel will be assigned at the facility as their workplace). The Preferred Action Alternative would
808 not have significant impacts on utilities as the facility will connect to existing utilities that has sufficient
809 capacity to accommodate water, sewer, waste and other utilities needs of the facility. Impacts to utilities are
810 not analyzed further in this EA.

811

812 **Transportation** - The proposed TRC facility would be located east of I-5 in the City of Tumwater, WA between
813 two I-5 interchanges: Tumwater Boulevard to the north and 93rd Avenue SW to the south. The project site is
814 adequately served by a surface road network in uniformly good condition and capable of heavy vehicle traffic.

815 Access to the site would be provided by Kimmie Street SW. The site is easily reached from the Olympia
816 Regional Airport. Access to I-5 to the north is from Exit 101 at Tumwater Boulevard and to the south from Exit
817 99 at 93rd Avenue SW (State Route 121). The WMD anticipates that most soldiers will reach the readiness
818 center from the north.

819
820 Recent large-scale industrial development proposals in the vicinity of the I-5/93rd Avenue SW interchange
821 have faced significant traffic mitigation costs through financial participation in the widening of the northbound
822 on and off ramps and signalization. This stems from the significant increase in peak hour trips these
823 developments are expected to generate. During the due diligence process, The Transpo Group completed a
824 transportation feasibility study which concluded that the project would not be expected to financially
825 participate in the interchange improvement project but would likely be assessed fees up to \$217,366
826 (Appendix O). Transpo Group further stated that no offsite mitigation or impact fees would be required by
827 Thurston County, and that the addition of a left turn lane at the site entrance – which had been discussed as
828 part of the traffic study process – is not warranted. Transpo Group calculated that the TRC facility operations
829 will generate 25 new weekday PM peak hour trips and 300 weekend inbound and outbound trips on training
830 weekends. Construction activities would result in short-term and insignificant increase in traffic accessing the
831 project site. The project's impacts to traffic in the neighborhood is therefore less than significant.

832
833 Site development as currently envisioned would provide approximately 240 parking spaces for POV at the
834 front of the building and parking for various military vehicles in the secure (rear) part of the building totaling
835 2,057 square yards in area. In accordance with NGB standards, POV parking will be 4-inch asphalt paving while
836 military vehicles parking will be 8-inch concrete.

837

838 **3.11 Hazardous and Toxic Materials/Wastes**

839 Hazardous materials are defined within several laws and regulations to have certain meanings. For this
840 document, a hazardous material is any of the following:

- 841 • any substance designated pursuant to Section 311(b)(2) 9AO of the CWA;
- 842 • any element, compound, mixture, solution, or substance designated pursuant to Section 102 of
843 the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA);
- 844 • any hazardous waste under the Resource Conservation and Recovery Act (RCRA) as defined below;
- 845 • any toxic pollutant listed under the Toxic Substances Control Act (TSCA);
- 846 • any hazardous air pollutant listed under Section 122 of the CAAA; and

- 847 • any imminently hazardous chemical substance or mixture with respect to which the USEPA
848 Administrator has acted pursuant to Subsection 7 of TSCA.

849
850 During construction/road paving activities, there is some possibility for the release of small quantities of
851 hazardous materials such as fuels, oils, or lubricants associated with the operation of construction vehicles
852 and equipment. Standard construction specifications for prevention of and protection from such releases
853 would be employed. The construction contractor would be responsible for following applicable regulations
854 and procedures for the management of these hazardous materials and spill response. The contractor will
855 comply with establishing BMPs, obtaining all required permits, and site plans verified by the WAARNG
856 Environmental Programs office.

857
858 Once operational, the TRC facility personnel will manage all hazardous wastes to be generated in
859 accordance with the documented procedures described in the Environmental Management Systems
860 (EMS). The EMS is used by WMD to ensure that all agency employees operate in a manner compliant
861 with all relevant laws, rules and regulations.

862
863 Hazardous waste is normally generated from vehicle general maintenance, fuel storage and transfer,
864 engine degreasing, parts washing, painting operations, weapons maintenance and repair of
865 communications equipment. In this proposed TRC facility, hazardous materials and wastes to be
866 generated would include diesel fuel, petroleum, oil, and lubricant products. Most of the hazardous
867 waste consists of light bulbs, aerosol cans, batteries, filters, and paint. Used oil, antifreeze, lead acid
868 batteries, and off-specifications fuel are recycled.

869
870 The TRC facility construction and operation would not utilize or generate hazardous materials or toxic wastes
871 that would impact the Kimmie St. community. All such types of wastes to be generated by the new facility
872 will be managed properly by the facility personnel in accordance with Federal, State, and local rules and
873 regulations for handling such types of wastes. Should there be a release of fuel or hazardous materials during
874 the operation of the TRC facility, personnel will follow standard spill response procedures developed by the
875 WMD. There will be trained personnel to implement BMPs, and standard operating procedures (SOPs) for
876 Spill Prevention Control and Countermeasures Plan (SPCCP) and hazardous wastes operations.

877

878 An Environmental Condition of Property Report (ECOP), specifically a Preconstruction Site Assessment (PCA),
879 was completed for the TRC facility site in August 2015. The WAARNG concluded in the PCA that there is no
880 evidence that the construction area contains any munitions and explosives of concern (MEC), chemical
881 warfare agents (CWA), hazardous substances, and/or petroleum products. Also, there is no reason to suspect
882 contamination will be encountered during construction of the TRC facility at the proposed Tumwater site.
883 This site is therefore a *Category I* site in accordance with AR 200-1 and NG PAM 415-15. For sites classified as
884 Category I, the results of the PCA can be recorded in the environmental documentation associated with the
885 construction project and no further investigation is warranted.
886

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4.0 ENVIRONMENTAL CONSEQUENCES

This section forms the scientific and analytic basis for the comparison of alternatives, providing the decision-maker with a clear basis for choice between reasonable alternatives. This section identifies the direct, indirect, and cumulative effects of the Proposed Action and alternatives on each of the resource areas previously described in the Affected Environment section.

CEQ Regulations (40 CFR Part 1508.18) direct that the environmental effects resulting from major Federal actions be analyzed for three types of effects: direct, indirect, and cumulative. A direct effect is caused by the action and occurs at the same time and place. An indirect effect is caused by the action, but occurs later in time or farther removed in distance, although it is still reasonably foreseeable. A cumulative effect produces an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR Part 1508.7). Short-term effects (construction phase) versus long-term effects (operational phase) under the context of direct, indirect, and cumulative effects are also analyzed. Effects are quantified as much as possible and are identified as significant or less-than-significant. Less-than-significant effects can be managed through implementation of BMPs. If a significant adverse effect is identified, mitigation would be required.

4.2 Land Use

4.2.1 Effects of the No Action Alternative

Under the No Action Alternative, construction and operation of the TRC facility would not occur and there would be no impacts to the land use at the project site.

4.2.2 Effects of the Preferred Action Alternative

No adverse impact is expected from the implementation of the Preferred Action Alternative because the project site is located within an already developed area, and the property is zoned for light industrial development. The TRC facility has been determined by the City of Tumwater to be consistent with the light industrial development criteria.

4.2.3 Mitigation

No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant levels.

31 **4.3 Air Quality**

32 **4.3.1 Effects of the No Action Alternative**

33 Under the No Action Alternative, construction and operation of the TRC facility would not occur and there
34 would be no impacts to the air quality at the project site.

35 **4.3.2 Effects of the Preferred Action Alternative**

36 There would be short-term, less-than-significant adverse impacts on air quality from the implementation of
37 the Preferred Action Alternative. Impacts due to the potential fugitive dust generation from construction
38 activities would be localized and would be minimized by the implementation of best management practices
39 (BMPs) for dust control as would be presented in the required Dust Control Plan (DCP). Such BMPs include
40 watering disturbed and unpaved areas, limiting vehicle speeds on unpaved areas, covering haul trucks with
41 tarps, ceasing earth-moving or disturbance activities during high wind conditions, and stabilizing previously
42 disturbed areas if these will not be actively used for several weeks.

43
44 Once the TRC facility is operational, long-term, less-than-significant adverse impacts are expected due to
45 emissions from the additional vehicular traffic, and from operational equipment (generator, heating,
46 ventilation, and air conditioning or HVAC). Such emissions would be minimal and are not anticipated to affect
47 local and regional air quality. The Preferred Action Alternative is neither expected to emit any hazardous
48 pollutants, nor will it exceed GHGs reporting or regulatory thresholds.

49 **4.3.3 Mitigation**

50 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
51 levels.

52 **4.4 Noise**

53 **4.4.1 Effects of the No Action Alternative**

54 Under the No Action Alternative, construction and operation of the TRC) facility would not occur and there
55 would be no impacts to noise at the project site.

56 **4.4.2 Effects of the Preferred Action Alternative**

57 Short-term, less-than-significant adverse impacts are expected from the Preferred Action Alternative
58 implementation due to potential for noise generation from construction activities and the proximity to noise
59 receptors. A noise study was conducted by SSA Acoustics in September 2015 to address the community's
60 concerns about the potential noise impacts of the TRC facility construction and operation. Results of the study
61 showed that the Preferred Action Alternative would have less-than-significant impacts to the community
62 (Appendix C). Noise to be generated from construction activities would be short-term, intermittent, and

63 localized. During the construction phase, an increase in localized noise would result from the use of
64 construction machinery, including bulldozers, backhoes, dump trucks, graders and track-hoes. Construction
65 noise emanating from the site is expected to attenuate before reaching noise receptors. Sensitive receptors
66 (Kimmie St. residential community, George W. Bush Middle School) are buffered by densely wooded
67 vegetation, and are already experiencing road noise from neighborhood streets and I-5. BMPs for minimizing
68 noise would be implemented during the construction period such as limiting construction and associated
69 heavy equipment operation during daytime to reduce noise impacts during the sensitive night-time hours,
70 shutting down noise-generating equipment when not needed, or locating stationary noise-generating
71 equipment as far away from sensitive receptors as possible.

72

73 Long-term, less-than-significant increase in existing noise levels would be expected to occur from the
74 operation of the TRC facility, primarily from traffic and training. During the TRC operations, the WAARNG will
75 assure proper maintenance of any noise-generating equipment per manufacturer's recommendation. Once
76 constructed, the facility is expected to provide a buffer to these sensitive receptors from I-5 noise which is the
77 predominant source of noise in the Kimmie St. neighborhood.

78 **4.4.3 Mitigation**

79 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
80 levels.

81 **4.5 Topography, Geology, and Soils**

82 **4.5.1 Effects of the No Action Alternative**

83 Under the No Action Alternative, construction and operation of the TRC facility would not occur and there
84 would be no impacts to topography, geology and soils at the project site.

85 **4.5.2 Effects of the Preferred Action Alternative**

86 The TRC facility construction and operation will neither have any short- nor long-term impacts on topography
87 and geology. Less-than-significant adverse impacts to soils are expected during construction due to grading of
88 the approximately 12-acre in the northern portion of the site where the TRC facility would be built. Soil
89 disturbance could result in increased erosion potential from loss of ground cover and exposure of bare soils to
90 precipitation and runoff. Potential impacts would be minimized or avoided by requiring the contractor to
91 prepare an Erosion and Sediment Control Plan and follow erosion control measures and other appropriate
92 BMPs (e.g., such as soil stabilization/revegetation techniques, covering soil piles, installing silt fences,
93 sedimentation basins and other sediment control structures) based on the conditions in the NPDES permit.

94

95 No long-term adverse impacts to soils are anticipated from the operation of the TRC facility. Potential soil
96 erosion impacts during training activities would be minimized or avoided by following appropriate BMPs (e.g.,
97 avoiding training in bare areas or when ground is very moist, hydroseeding bare areas after a major training).

98 **4.5.3 Mitigation**

99 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
100 levels.

101 **4.6 Water Resources**

102 **4.6.1 Effects of the No Action Alternative**

103 Under the No Action Alternative, construction and operation of the TRC facility would not occur and there
104 would be no effect to the current hydrology, groundwater and surface water resources at the project site.

105 **4.6.2 Effects of the Preferred Action Alternative**

106 Short-term, less-than-significant adverse impacts to offsite surface waters may occur during the TRC facility
107 construction due to some degree of soil erosion and sediments that may be carried by runoff. No surface
108 water is present in or adjacent to the property that would be directly affected by the TRC facility construction.
109 Wetlands identified and delineated in the site will be excluded from construction and will be protected with
110 silt fence during construction. Also, the project will require a NPDES permit (Construction Stormwater General
111 Permit) that would identify BMPs (e.g., cover soil piles, silt fencing, etc.) to minimize impacts from stormwater
112 runoff during construction activities. An increase in impervious surfaces in the community would decrease
113 groundwater recharge, and may contribute to potential flooding being in an area of high groundwater.
114 However, the Preferred Action Alternative would not change the hydrology and groundwater conditions of the
115 Kimmie St. property and surrounding areas with the implementation of stormwater management
116 requirements as prescribed by the City of Tumwater's Code Section 2.2.8, Volume V of the 2010 Drainage
117 Design and Erosion Control Manual (DDECM).

118
119 According to the grading and drainage feasibility study conducted by AHBL Inc. in 2014, the central portion of
120 the site was the recommended location for the proposed development (Appendix G-1). This area was believed
121 to offer maximum separation from groundwater, is also not heavily forested, and minimizes the length of the
122 access road required to connect to Kimmie St. SW. Due to the size of the development, full flow dispersion
123 techniques cannot manage all of the stormwater runoff generated from the site. Therefore, building finish
124 floors will need to be set sufficiently high to accommodate drainage conveyance to stormwater ponds or
125 trenches.

126

127 Geotechnical surveys revealed, however, that this central portion has soil liquefaction issues and low
128 infiltration rates. Implementation of mitigation options to address these issues would result in significant
129 additional costs. Therefore, construction was proposed in the northern portion of the 35-ac parcel and the
130 9.71-ac parcel, which had already been previously developed, is not heavily forested, and where groundwater
131 issues can be readily managed. Building finished floors will still need to be set sufficiently high according to the
132 City of Tumwater requirements to accommodate drainage conveyance to stormwater features.

133

134 The construction of the TRC) facility would not result in substantial changes to the project site that would
135 adversely affect current hydrology or drainage. Thus, TRC facility construction would have no effect on
136 groundwater conditions of the site.

137

138 The TRC facility operation would not directly impact any surface water because there is no surface water
139 present in or around the project site, except for the small wetlands on the southern boundary and
140 northwestern part of the property. The TRC facility operation would have long-term, less-than-significant
141 adverse impacts to groundwater due to the site being in an area where there is high groundwater issue and is
142 within a Wellhead Protection Area. High groundwater concerns would be addressed during the design and
143 construction phases of the project. An infiltration pond would be constructed for stormwater management.
144 The project will not involve withdrawals from groundwater. Currently, there is only one well that once
145 withdrew from existing groundwater resources but it had already been capped. Six monitoring wells are
146 present that were used by the former property owner in a previous groundwater monitoring study.

147

148 Thus, the TRC facility construction and operation would have overall less-than-significant impacts to the water
149 resources at or around the project site.

150 **4.6.3 Mitigation**

151 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
152 levels.

153

154 **4.7 Biological Resources**

155 **4.7.1 Effects of the No Action Alternative**

156 Under the No Action Alternative, construction and operation of the TRC facility would not occur and there
157 would be no effect to the biological resources (vegetation, fish and wildlife, threatened and endangered
158 species) in the project site.

159 **4.7.2 Effects of the Preferred Action Alternative**

160 Biological resources in the project area would sustain less-than-significant impacts associated with habitat
161 conversion and construction activities. The TRC facility construction would convert part of the currently
162 undeveloped areas in the northern portion of the project site resulting in the removal of limited areas of
163 existing native vegetation and consequently, loss of a portion of wildlife habitat. During construction, wildlife
164 would likely vacate the immediate areas and move to adjacent forested habitats. The area for clearing though
165 is limited (12 ac maximum out of the 53-ac site), with much forest vegetation cleared from prior activities (i.e.,
166 logging in late 1980s, trails constructed by previous property owners, construction of structures that are now
167 all demolished), and the area now mostly bare, with areas towards the central and southern portions
168 dominated by non-native invasive weeds such as Scot’s broom, Himalayan blackberries, and reed canary grass
169 mixed with native shrubs. The loss of forest land would be negligible in relation to the abundance of this
170 vegetation type that would be retained in the project site for stormwater management. A tree survey and
171 forester’s report would be prepared as part of the design process to ensure that the City of Tumwater’s tree
172 protection standards would be met with the implementation of the Preferred Action Alternative.

173
174 The WAARNG under the Migratory Bird Treaty Act (MBTA), 50 CFR 21, and EO 13186 is mandated to promote
175 and protect migratory birds. Overall impacts to migratory birds are anticipated to be negligible. The WAARNG
176 will follow BMPs to reduce avian risk, to the extent practicable, such as conducting land disturbing and loud
177 noise-producing activities before or after nesting season. Because no landscaping or window modifications had
178 been incorporated in the funding request for this project, the WAARNG will also monitor bird-window strikes
179 occurrence and implement corrective actions (e.g., window clings, textured windows) if it becomes a problem.

180
181 There is no designated critical habitat for threatened and endangered species present in the project site. There
182 is a wetland in the southern boundary of the site that may be a suitable habitat for some federally protected
183 species. However, the wetland will be excluded from the construction footprint/APE and therefore, will not be
184 affected by the Preferred Action Alternative. Because there are no surface waters on the project site where
185 fish thrives, the TRC facility construction will not have any significant impacts on fish.

186
187 Potential long-term, less-than-significant adverse impact on Mazama Pocket Gophers is expected from the
188 implementation of the Preferred Action Alternative. The site has soils that are suitable habitat for pocket
189 gophers. The Preferred Action Alternative would convert part of the currently undeveloped areas in the central
190 portion of the project site into a developed area, resulting in the loss of about 11 ac of soils that are suitable

191 habitat for *Mazama* (*Olympia* subspecies) pocket gopher. Permanent loss of these soils would occur and may
192 require implementation of conservation measures. The WAARNG follows the WDFW Priority Habitat Species
193 (PHS) Management Recommendations for *Mazama* Pocket Gopher (WDFW 2011) currently relied upon for
194 purposes of compliance with the City of Tumwater's critical area ordinance. Under the Section 7 ESA
195 consultation, the USFWS required up to three site visits to ascertain the presence of gophers in the project
196 site. During the first site visit by USFWS biologist in July 2015, no pocket gophers or evidence of the presence
197 of pocket gophers were found in the project site. After USFWS reviewed the original and revised BAs, their
198 concurrence letter (Appendix A), recommended conservation measures such as (1) additional, follow-up
199 screenings for indications of *Mazama* Pocket Gopher occupancy over the course of phased implementation
200 and project delivery, with the next follow-up screenings be conducted during the 2017 field season, and (2) if
201 any portion of the 53-ac site becomes occupied by gophers in the future, an ESA consultation would be
202 reinitiated; field training activities and drills will be further discussed to avoid disturbance or degradation of
203 soil conditions in occupied MPG habitat; and MPG informational program for staff and personnel will be
204 established and effectively implemented.

205
206 During operation, military vehicles would travel on the already-established paved and unpaved roads/trails.
207 Future foot training by soldiers during weekend drills (one weekend per month) may result in some trampling
208 or crushing of vegetation and habitat. However, the activities will be conducted largely on the built section of
209 the facility, with limited navigational-type training to be held in the natural areas. Impacts to threatened and
210 endangered species and/or their habitat, if present, would be minimized by following training protocols and
211 BMPs to avoid potentially harassing or injuring protected species, or destroying their habitat. Wetlands had
212 already been mapped and will be flagged (signage) to ensure that personnel will not disturb the wetlands or
213 their buffers.

214
215 During operation, foot drills by approximately 300 soldiers will occur at the TRC) facility one weekend per
216 month. The activities will be conducted largely at the built section of the facility, with limited navigational-type
217 training to be held in natural areas, most likely in areas where trails already exist. Impacts to vegetation would
218 be minimized by following training protocols and best management practices to avoid clearing or destroying of
219 vegetation. The increased human presence in the area and slightly elevated noise levels may affect some
220 wildlife, but would be minor because the project site is within an industrial/residential area and the site itself
221 had been used for commercial operations in the past. Impacts to wildlife, threatened and endangered species,

222 and their habitat would be minimized by following training protocols and BMPs to avoid potentially harassing
223 or injuring wildlife, or destroying their habitat.

224

225 In conclusion, there are no unique or rare habitats, or designated critical habitat for threatened and
226 endangered species within or in the immediate vicinity of the project site. However, the Preferred Action
227 Alternative would result in permanent loss of soils that are suitable habitat for the federally listed Mazama
228 pocket gophers. Therefore, less-than-significant impacts on biological resources are anticipated from the
229 construction and operation of the TRC facility.

230 **4.7.3 Mitigation**

231 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
232 levels.

233

234 **4.8 Cultural Resources**

235 **4.8.1 Effects of the No Action Alternative**

236 Under the No Action Alternative, the construction and operation of the TRC facility would not occur and there
237 would be no impacts to the cultural resources at the project site.

238

239 **4.8.2 Effects of the Preferred Action Alternative**

240 The documented history of previous modern logging operations and other past ground disturbing activities
241 suggests that the entire site has low to moderate potential to contain intact archaeological resources. Records
242 review, SHPO and Tribal consultation and archaeological survey showed that there are no tribe-sensitive areas,
243 traditional cultural properties, or tribal resources on the proposed TRC facility project site. Therefore, the
244 implementation of the Preferred Action Alternative is not expected to have any short- or long-term adverse
245 effect on protected tribal resources, tribal rights, or Indian Land. In the event of inadvertent discovery of
246 cultural/archaeological resources during the TRC facility construction and operation, all work would stop, the
247 site of discovery secured, and the contractor would contact the WAARNG Environmental Programs for
248 guidance.

249 **4.8.3 Mitigation**

250 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
251 levels.

252

253 **4.9 Socio-Economic (Including Environmental Justice and Protection of Children)**

254 **4.9.1 Effects of the No Action Alternative**

255 Under the No Action Alternative, construction and operation of the TRC facility would not occur and there
256 would be no impacts to the socio-economic environment, including negative issues related to environmental
257 justice and safety of children, at the project site.

258 **4.9.2 Effects of the Preferred Action Alternative**

259 The Preferred Action Alternative implementation would have no short- and long-term adverse impacts to socio-
260 economic resources, such as recreation, population, public health and safety, or housing.

261
262 Short-term, less-than-significant adverse impacts to the health and safety of children or minority populations,
263 including Kimmie St. neighborhood and George W. Bush Middle School are expected due to slight increase in
264 noise and traffic during construction activities. During the construction phase of the project, there is an
265 anticipated short-term increase in traffic in a limited portion of Kimmie St. due to construction workers'
266 vehicles and machinery coming to and from the project site. Activities associated with construction (e.g.,
267 equipment movement) have impacts like those encountered during regular road maintenance activities. Short-
268 term positive impacts to the socio-economic environment of the community is expected during the
269 construction phase from construction workers' spending on meals and other services.

270
271 Short- and long-term positive impacts to the community are expected from the Preferred Action Alternative
272 implementation due to creation of construction jobs and spending on meals and services. The TRC facility
273 operation is expected to contribute positively to the long-term socio-economic aspects of the community.
274 Operational activities would indirectly benefit the local economy through WAARNG personnel's and visitors'
275 spending on services and meals of business and personal income generated. The additional personnel as well
276 as soldiers who come to drill one weekend per month are expected to support local restaurants, gas stations,
277 and other business establishments thereby providing economic benefits to the community.

278
279 The TRC facility construction and operation will not disproportionately impact children or minority and low
280 income populations in the Kimmie St neighborhood. Once complete, the facility will serve as a community
281 center which is available to citizens to rent and utilize. During disasters, the facility will serve as a community
282 hub to ensure that the community is taken care of following any catastrophic event. The presence of
283 WAARNG personnel could also increase security in the adjacent communities. Thus, the long-term benefits

284 would be proportionately shared by all population segments surrounding the proposed facility and entire
285 community.

286

287 As discussed in Section 4.10 below, there will be a slight increase in vehicular traffic after the construction of
288 the facility is completed. However, less-than-significant impacts to nearby George W. Bush Middle School and
289 Kimmie St. neighborhood are anticipated and such impacts would be managed by the implementation of BMPs
290 (e.g., signage, adhering to City of Tumwater's curb/sidewalk requirements).

291 **4.9.3 Mitigation**

292 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
293 levels.

294

295 **4.10 Infrastructure**

296 **4.10.1 Effects of the No Action Alternative**

297 Under the No Action Alternative, construction and operation of the TRC facility would not occur and there
298 would be no effect to the infrastructure in the community.

299 **4.10.2 Effects of the No Action Alternative**

300 The implementation of the Preferred Action Alternative would not have short- and long-term adverse impacts
301 to utilities as the facility will connect to existing utilities that have sufficient capacity to accommodate water,
302 sewer, waste and other utilities needs of the facility.

303

304 During the construction phase of the project, there is an anticipated short-term increase in traffic in a limited
305 portion of Kimmie St. due to construction workers' vehicles and machinery coming to and out from the project
306 site. Activities associated with construction (e.g., equipment movement) have impacts similar to those
307 encountered during regular road maintenance activities. Following construction, no significant increase in
308 vehicular traffic is anticipated.

309

310 The proposed TRC facility, located just east of I-5 between Tumwater Boulevard and 93rd Avenue SW, is
311 anticipated to generate 25 new weekday PM peak hour trips. Based on the rural development in the vicinity of
312 the project site and along Kimmie St. SW, typical weekday traffic volumes are expected to be relatively low.
313 The slight increase in traffic along Kimmie St. brought about by the 25 personnel working at the TRC facility will
314 not cause a significant impact to traffic conditions in the area. Personnel will be required to use Exit 101.

315

316 Once the TRC facility is operational, long-term less-than-significant adverse impacts to traffic in a limited
317 portion of Kimmie St. would be expected. Daytime drill will generate at most 300 inbound and outbound trips
318 occurring only one weekend per month. From WAARNG's experience, it is extremely rare for all soldiers
319 scheduled to drill on a weekend to all show up as some of them may be sick or encounter other unavoidable
320 circumstances/family emergencies. Arrivals for the weekend training sessions are not expected to have a
321 significant impact on the existing transportation network due to the staggered arrival of soldiers, and generally
322 reduced background traffic volumes on late Friday evenings or Saturday mornings. Similarly, background traffic
323 volumes are also lower on Sundays when reservists depart from the weekend training. Personnel will be
324 required to use I-5 Exit 101.

325

326 Based on the review of previous documents and communication with City and WSDOT staff, no specific offsite
327 impacts are anticipated to be required of the proposed TRC facility project, including the need to pay for
328 improvements along 93rd Avenue SW. However, it is likely that the City of Tumwater will require the payment
329 of impact fees and State Environmental Policy Act (SEPA) fees for applicable City or WSDOT projects. For the
330 TRC facility project, impact fees up to \$217,366 would likely be required for improvements along the
331 Tumwater Boulevard interchange. No mitigation or proportionate improvement cost is anticipated towards
332 improvement at the 93rd Avenue SW interchange. No offsite mitigation or impact fees are anticipated to be
333 required by Thurston County.

334

335 The trip generation estimated in the traffic feasibility study assumes that all full-time employees depart the
336 facility within a one-hour period at the end of each weekday and do not account for behaviors such as longer
337 departure time period or employees' occasional off-site meeting or sick days. A trip generation study that
338 includes multiple days of observations could capture the effects of these behaviors and result in a lower trip
339 generation estimate and related mitigation fees.

340

341 Congestion or street parking is not anticipated to occur during weekdays or weekends because the TRC facility
342 would be built with sufficient parking spaces to accommodate personnel and drill weekend visitors. There are
343 also existing paved spaces and areas without vegetation (approximately 2.64 ac) at the northern portion of the
344 project site that can be used as overflow parking spaces. It is extremely rare for soldiers scheduled to drill on a
345 certain weekend to have 100% attendance.

346

347 **4.10.3 Mitigation**

348 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
349 levels.

350

351 **4.11 Hazardous and Toxic Materials/Wastes**

352 **4.11.1 Effects of the No Action Alternative**

353 Under the No Action Alternative, construction and operation of the TRC facility would not occur and there
354 would be no impacts to hazardous and toxic materials/wastes at the project site.

355 **4.11.2 Effects of the Preferred Action Alternative**

356 Short-term, less-than-significant adverse impacts are expected from TRC facility construction due to a potential
357 for spill incidents from construction vehicles operation. During construction/road paving activities, there is
358 some possibility for the release of small quantities of hazardous materials such as fuels, oils, or lubricants
359 associated with the operation of construction vehicles and equipment. Standard construction specifications for
360 prevention of and protection from such releases would be employed. The construction contractor would be
361 responsible for following all applicable Federal, State and local laws and procedures for the management of
362 these hazardous materials and spill response. The contractor will comply with establishing BMPs, obtaining all
363 required permits, and site plans verified by the WAARNG Environmental Programs office.

364

365 The TRC facility operation may result in long-term, less-than-significant adverse impacts as a result of
366 hazardous and toxic materials/wastes generation. However, the TRC facility construction and operation
367 would not utilize or generate hazardous materials or toxic wastes that would feasibly impact the Kimmie St.
368 community. All such types of wastes to be generated by the new facility will be managed properly by the
369 facility personnel in accordance with Federal, State, and local rules and regulations for handling such types of
370 wastes. Should there be a release of fuel or hazardous materials during the operation of the TRC facility,
371 personnel will follow standard spill response procedures developed by the WMD as described in the
372 Environmental Management Systems (EMS). The EMS is used by WMD to ensure that all agency employees
373 operate in a manner compliant with all relevant laws, rules and regulations. There will be trained personnel
374 to implement BMPs (e.g., proper handling, storage and disposal of hazardous wastes, spill response and
375 reporting), and standard operating procedures (SOPs) for Spill Prevention Control and Countermeasures Plan
376 (SPCCP) and hazardous wastes operations.

377 **4.11.3 Mitigation**

378 No mitigation measures will be necessary to reduce any adverse environmental impacts to below significant
379 levels.

380
381 **4.12 Mitigation Measures**

382 The proposed project site is proximate to a designated critical habitat for the Mazama pocket gopher (Olympia
383 subspecies) and contain soils that were identified by the USFWS as suitable habitats for this federally listed
384 species. Therefore, a Biological Evaluation was prepared and the WAARNG determined that the Preferred
385 Action Alternative would affect but not likely to adversely affect Mazama pocket gopher (Olympia subspecies)
386 and its habitat. No mitigation measures are necessary to reduce adverse environmental impacts to less-than-
387 significant levels. To guard against the development of circumstances that could in limited cases result in site-
388 specific adverse effects, the NGB and the WAARNG will maintain their stewardship posture by implementing
389 the BMPs for each resource area.

390
391
392
393 **Best Management Practices**

394 Per established protocols, procedures, and requirements, the WAARNG will implement Best
395 Management Practices (BMPs) and will satisfy all applicable Regulatory Requirements in association
396 with design, construction, and operation of the Preferred Action Alternative component projects.
397 These “management measures” are described in this EA, and are included as components of the
398 Preferred Action Alternative. “Management measures” are defined as routine BMPs and/or
399 regulatory compliance measures that the WAARNG regularly implements as part of their activities, as
400 appropriate, across the State of Washington. These are distinguished from “mitigation measures,”
401 which are defined as project-specific requirements, not routinely implemented by the WAARNG, and
402 necessary to reduce identified potentially significant adverse environmental impacts to less-than-
403 significant levels. With implementation of the following routine “management measures” and
404 project-specific mitigation measures, the Preferred Action Alternative would not result in significant
405 adverse impacts to the current environmental setting.

406
407 Air Quality: Prepare a Dust Control Plan. Reduce or eliminate fugitive dust emissions and minimize
408 impacts to air quality by watering disturbed and unpaved areas, limiting vehicle speeds on unpaved

409 areas, covering haul trucks with tarps, ceasing earth-moving or disturbance activities during high wind
410 conditions, and stabilizing previously disturbed areas if these will be inactively used for several weeks.

411

412 Noise: Reduce noise impacts during construction by halting or limiting construction activities and
413 associated heavy equipment traffic between 9:00 P.M and 7:00 A.M. This measure would reduce
414 noise impacts during sensitive night-time hours. Locate stationary equipment as far away from
415 sensitive noise receptors as possible. Shut down noise-generating equipment when not being used.
416 Assure proper maintenance of noise-generating equipment per manufacturers' recommendation.

417

418 Topography, Geology and Soils: Prepare an Erosion and Sedimentation Control Plan to address all
419 earth disturbance aspects of the Preferred Action Alternative. Install and monitor erosion prevention
420 measures such as silt fences, sedimentation basins, and/or other sediment control structures;
421 covering stockpiled soils; and seeding/revegetation or stabilizing areas temporarily cleared of
422 vegetation. Avoid training in bare areas or when ground is very moist, and hydroseeding bare areas
423 after a major training event.

424

425 Migratory Birds: Reduce avian risk, to the extent possible, by conducting land disturbing activities
426 either before or after nesting season. Bird-window strikes will be monitored and corrective actions
427 taken if it becomes a problem.

428

429 Cultural Resources: In the event of inadvertent discovery of cultural/archaeological resources, all
430 work would stop, the site of discovery secured, and the contractor would contact the WAARNG
431 Environmental Programs for guidance.

432

433 Hazardous and Toxic Materials: Comply with Federal, State and local requirements, as well as Army
434 BMPs for handling and storing hazardous and toxic materials and wastes. Train personnel on how to
435 properly handle, store and dispose of hazardous materials/wastes and how to respond to and report
436 spills when these occur.

437

438 **4.13 Cumulative Effects**

439 This section addresses the effects of the Preferred Action Alternative in combination with the effects of other
440 past, current and proposed future actions within the vicinity of the proposed TRC facility. Cumulative effects
441 are defined by the CEQ Regulations in 40 CFR 1508.7 as: "Impacts on the environment which result from the
442 incremental impact of the action when added to other past, present, and reasonably foreseeable future
443 actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions." CEQ
444 regulations also state that the addressed cumulative impacts should not only include (or be limited to) those
445 from actual proposals, but must also contain impacts from contemplated or reasonably foreseeable actions in
446 the Preferred Action Alternative's region of influence. The NEPA requires the analysis of cumulative
447 environmental impacts of a Preferred Action Alternative on resources that may often be manifested only at
448 cumulative level, such as traffic congestion, air quality, noise, biological resources, cultural resources,
449 socioeconomic conditions, and utility system capacities.

450

451 Reasonably foreseeable past, present and future actions in the vicinity of the TRC facility project site include:

- 452 • Field Maintenance Shop (FMS) construction and operation by the WAARNG when funding becomes
453 available
- 454 • Developments associated with the New Market Industrial Campus project by the Port of Olympia
- 455 • Commercial industries or residential property construction and/or remodeling (Kimmie St., 83rd Ave,
456 93rd Ave.) proposed projects
- 457 • Potential improvements to local roadways/elevating roads that are susceptible to flooding that
458 include Kimmie St., Case Road, 93rd Ave., 88th Ave., 85th Ave., and 83rd Ave as identified in the Salmon
459 Creek Drainage Basin Plan
- 460 • Proposed improvements to the Tumwater Boulevard interchange on Interstate 5 Exit 101 by WSDOT
- 461 • Proposed construction of a Tumwater Corporate Park at the northwest intersection of 93rd Ave SW
462 and Kimmie St. SW
- 463 • At least 37 commercial/industrial projects (new construction, remodel, addition, repair/maintenance,
464 or demolition) within a mile from the boundary of the project site permitted or being reviewed by
465 Thurston County during the last 10 years

466

467

468

469 Other reasonably foreseeable past, present and future actions in the City of Tumwater and Thurston County
470 areas:

- 471 • Proposed construction of a 608,500 SF warehouse distribution center with associated parking and
472 utility infrastructure within the 9500 block of Kimmie St. SW and 2300 block of 93rd Ave SW
- 473 • Proposed construction of Sequia Landing Apartments in the corner of Littlerock Road SW and
474 Tumwater Boulevard
- 475 • Proposed construction of a 7,416 SF veterinary clinic on less than one acre zoned Mixed Use
- 476 • Within the last 10 years, at least 11 new construction or road improvement projects permitted and 2
477 commercial projects in-review by Thurston County

478

479 **4.13.1 Cumulative Effects Within the Area**

480 Much of the land in Tumwater is currently vacant (30% as of 2002), with the majority located near the Olympia
481 airport and along the Deschutes River (City of Tumwater Comprehensive Plan 2013). Accordingly, it is possible
482 that much of this vacant land is undesirable for development. Residential use (28%) takes the second largest
483 percentage of acreage, predominating most of the built land uses. Public or institutional use ranked third in
484 terms of land use (15%). Open space, industrial and commercial uses occupied the fourth, fifth and sixth places
485 in land use acreage (6% to 9%), with the largest portions of industrial use taken up by the Port of Olympia New
486 Market Industrial Park and the Mottman Industrial Park. This pattern of land use has not changed much in the
487 last 10 years and are expected to not change significantly in the near future. Across the City of Tumwater,
488 ongoing development continues mostly in the form of residential and industrial developments.

489

490 Despite the relatively slow pace of the City's development, environmental effects such as traffic congestion, air
491 quality impacts, and noise impacts have increased, placing increased demands on services, utilities, and
492 infrastructure, and losing former vacant or open spaces to new developments. Such developments have
493 resulted in associated impacts to natural resources, cultural resources and biological resources. One of the
494 greatest concerns with regard to development is the impact to stormwater management. With many of the
495 sites in Tumwater susceptible to high groundwater occurrence and potential liquefaction issues, additional
496 developments in sensitive areas are discouraged or prevented. The Preferred Action Alternative, for example,
497 will be sited in an area where there was a known high groundwater issue; however, stormwater management
498 measures consistent with the City of Tumwater regulations will be implemented to address this concern.

499

500 **4.13.2 Cumulative Effects of the Preferred Action Alternative**

501 Several properties are available for commercial, industrial and residential development in the vicinity of the
502 TRC facility project site. However, development in this community is not anticipated to increase substantially
503 especially in the short-term due to high groundwater concerns and stormwater management restrictions for
504 many of these properties. Such development restrictions are compounded by evolving local ordinances and
505 regulations surrounding stormwater and high groundwater management. Recent federal listing of some
506 species (Mazama pocket gophers, Streaked horned larks, etc.) may also pose development restrictions on
507 some of these sites.

508
509 The implementation of the Preferred Action Alternative is not expected to contribute significantly to the
510 cumulative adverse impacts to any resource area discussed in this EA. As well, the proposed construction of an
511 FMS facility (17,000 SF) plus support structures such as 200 SF bulk petroleum/oil/lubricant (POL) storage, 383
512 SF flammable materials storage, 300 SF controlled waste facility, 750 SF unheated storage, and 6,181 SY
513 pavement/sidewalks/curbing within the 53-ac property is not expected to contribute significant cumulative
514 environmental impacts. Follow-on project-specific NEPA analysis will be conducted should the FMS project be
515 funded. Adoption of BMPs during construction and operation of these facilities would minimize any
516 cumulative impacts to various resources areas. The construction of and activities at the TRC facility would
517 unlikely foster more than minimal additional development in the local area because most of the personnel's
518 and soldiers' needs would already be met by existing establishments. Therefore, the level of cumulative
519 impacts is expected to be low overall and the significance thresholds for each resource area are not expected
520 to be breached.

521
522 Cumulative net positive impacts to the local socio-economic environment due to potential increased spending
523 by workers and visitors are expected to result from the implementation of the Preferred Action Alternative.
524 The Preferred Action Alternative would not noticeably contribute to the ongoing regional impacts of
525 development to natural/cultural resources, infrastructure, and utilities as impacts to such resources would be
526 managed to less-than-significant levels. While positive cumulative impacts to local land use and the
527 socioeconomic environment are anticipated, the Preferred Action Alternative would likely produce localized,
528 less-than-significant adverse effects to the human environment through less-than-significant potential increase
529 in local area traffic and less-than-significant associated air quality emissions in the immediate vicinity of the
530 project site. However, this does not represent a regional cumulative impact because the Preferred Action
531 Alternative primarily involves activities already occurring in the project's region of influence. Also, the City of

532 Tumwater has identified transportation projects that would help manage some of the traffic impacts of
533 development and meet future demands. No additional cumulative impacts due to the implementation of the
534 Preferred Action Alternative are expected with respect to other environmental and human resources.

535

536 Under the No Action Alternative, construction and operation of the TRC facility would not occur and there
537 would be no cumulative impacts to the community. The site would either stay vacant or be used only for on-
538 the-grounds training by the WAARNG units.

539

540 **4.13.3 Inter-relationship of Cumulative Effects**

541 The WAARNG's Preferred Action Alternative to build a TRC facility in Tumwater would produce environmental
542 effects as discussed above. Across Thurston County, the need for land to accommodate the increasing
543 population and economic development, including additional industrial uses, business, housing, and related
544 services and infrastructure would also produce environmental effects. These two factors are interrelated in
545 two ways:

- 546 **1.** One of the WAARNG's missions is to serve the emergency needs of the people in the State of
547 Washington. Land and facilities are necessary to accommodate training so that the WAARNG can
548 effectively serve the community and the entire country. Therefore, the growth of Tumwater, Thurston
549 County, and the nation as a whole, drives the need for this training and support capability; and
- 550 **2.** Both factors produce pressures on the environment within the region.

551

552 Interrelated cumulative impacts place demands on the local area, Thurston County and WA state planning
553 organizations, and the military's natural and cultural resources managers and public works personnel. Through
554 a sound, integrated, long-range planning, environmental impacts can be minimized. The City of Tumwater,
555 working closely with the WAARNG, has been assisting in the planning processes for the Preferred Action
556 Alternative's implementation.

557

558 No significant adverse cumulative impacts to the environment, are expected to be induced by changes under
559 the Preferred Action Alternative are anticipated in Tumwater. Close coordination and consultation actions
560 between the WAARNG, City of Tumwater and other regulatory authorities, and community representatives
561 would serve to minimize any potential future land use conflicts brought about by the proposed projects in
562 Tumwater and surrounding communities. The implementation of land use and resource management plans
563 would serve to control the extent of environmental impacts, and proper planning would ensure that future

564 socio-economic conditions improve the quality of life of Tumwater residents. The implementation of effective
565 environmental management plans and programs would minimize or eliminate any potential cumulative
566 degradation of the natural ecosystem and human environment.

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Table 5-1. Summary of the impacts to environmental resources comparing the No Action Alternative with the Preferred Action Alternative.

Resource	No Action Alternative	Preferred Action Alternative
Land Use	No impact attributable to WAARNG action. WAARNG would continue to use inadequate training and administration facilities in existing locations.	No adverse impact. The site for the Preferred Action Alternative had already been zoned Light Industrial. Potentially, long-term positive impact through development of the site in consonance with County and City plans and zoning.
Air Quality	No impact attributable to WAARNG action. Ongoing operations' emissions in existing facilities would continue.	Short-term, less-than-significant adverse impacts due to potential for air emissions/dust generation only during construction activities and the proximity to sensitive receptors. Sensitive noise receptors are Kimmie St. residential community and George Washington Bush Middle School. Long-term, less-than-significant adverse impacts due to increased site emissions, including WAARNG traffic. Would be managed with the implementation of BMPs. Air quality impacts determined to be below <i>de minimis</i> levels for conformity analysis.
Noise	No impact attributable to WAARNG action. Ongoing operations' noise in existing facilities would continue.	Short-term, less-than-significant adverse impacts due to potential for noise generation from construction activities and the proximity to noise receptors. Sensitive noise receptors are Kimmie St. residential community and George Washington Bush Middle School. Long-term, less-than-significant adverse impact due to training noise and WAARNG traffic. Daytime drill occurs only one weekend per month and would not generate significant noise increase than what is currently experienced in the neighborhood. Would be managed with the implementation of BMPs.
Topography, Geology and Soils	No impact attributable to WAARNG action. WAARNG would continue to use inadequate training and administration facilities in existing locations.	No impacts to geology and topography. Short-term, less-than-significant adverse impacts to soils during construction due to grading of a portion of the site. Erosion measures and other applicable BMPs would be implemented during the construction phase based on the conditions in the NPDES permit (Construction Stormwater General Permit). No long-term adverse impacts anticipated.
Water Resources	No impact attributable to WAARNG action.	Short-term, less-than-significant adverse impacts to offsite surface waters due to soil erosion and consequent sedimentation due to grading of a portion of the site during construction. Would be managed with the implementation of BMPs. Long-term, less-than-significant adverse impacts to groundwater due to the site being in an area where there is high groundwater issue and is within a Wellhead Protection Area. An infiltration pond would be constructed for stormwater management. The TRC facility will be sited in the northern portion of the site, which is the least forested, had been previously developed, where soils are more suitable for construction, and groundwater concerns can be readily managed. Impacts would be managed with the implementation of BMPs.

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Table 5-1. Summary of impacts to environmental resources. (cont.)

Resource	No Action Alternative	Preferred Action Alternative
Biological Resources	No impact attributable to WAARNG action.	Less-than-significant adverse impacts due to removal of vegetation and therefore loss of wildlife habitat. Wetlands will be excluded from construction footprint and training area. Potential long-term, less-than-significant adverse impact on Mazama Pocket Gophers due to permanent loss of soils that are suitable habitat for this species. No mitigation measures necessary and impacts would be managed with the implementation of BMPs.
Cultural Resources	No impact attributable to WAARNG action.	No short- and long-term adverse impacts. No cultural or archaeological resources present. Potential for inadvertent discoveries of cultural resources and/or human remains during construction. Would be managed with the implementation of BMPs and following WAARNG Standard Operating Procedure for Inadvertent Discovery.
Socio-economic (including Environmental Justice and Protection of Children)	No impact attributable to WAARNG action.	No short- and long-term adverse impacts to socio-economic resources, such as recreation, population, or housing. Short- and long-term positive impacts to the community due to creation of construction jobs and spending on meals and services. Short-term, less-than-significant adverse impacts to the health and safety of children or minority populations, including Kimmie St. neighborhood and George W. Bush Middle School due to slight increase in noise and traffic during construction activities. Long-term less-than-significant adverse impacts to the health and safety of children and minority populations due to slight increase in traffic from the use of the WAARNG facility. Impacts would be managed with the implementation of BMPs.
Infrastructure	No impact attributable to WAARNG action.	No short- and long-term adverse impacts to utilities as the facility will connect to existing utilities that have sufficient capacity to accommodate water, sewer, waste and other utilities needs of the facility. Short- and long-term less-than-significant adverse impacts to traffic in a limited portion of Kimmie St. Impacts would be managed with the implementation of BMPs. Personnel will be required to use I-5 Exit 101. Daytime drill occurs only one weekend per month. Sufficient parking space for drill soldiers would be present at the facility.
Hazardous and Toxic Materials/ Wastes	No impact attributable to WAARNG action.	Less-than-significant adverse impacts. Personnel and construction contractors will follow spill prevention and response procedures as well as all Federal, State, and local laws and procedures, and obtain all necessary permits. Impacts would be managed with the implementation of BMPs.

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DoD's Unified Facilities Criteria (UFC 1-200-02)

DoD's Unified Facilities Criteria (UFC 4-023-03)

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1 **7.0 GLOSSARY**

2
3 **"Agency"** means agency as such term is defined in section 551 of Title 5, United States Code.

4
5 **"Ambient Air"** is any unconfined portion of the atmosphere: open air, surrounding air.

6
7 **"Anadromous"** means migrating from salt water to spawn in fresh water.

8
9 **"Attainment Area"** is an area considered to have air quality as good as or better than the National Air Quality
10 Standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a
11 non-attainment area for others.

12
13 **"Aquifer"** is an underground layer of permeable rock, sediment, or soil that yields water, or any geological
14 formation containing or conducting ground water, especially one that supplies the water for wells,
15 springs, etc.

16
17 **"Aquitard"** is a water-saturated sediment or rock whose permeability is so low it cannot transmit any useful
18 amount of water.

19
20 **"Critical Habitat"** means the specific areas within the geographical area occupied by a threatened or
21 endangered species, on which are found those physical or biological features (I) essential to the
22 conversation of the species and (II) which may require special management considerations or
23 protection.

24
25 **"Cultural resources"** refer to areas, places, buildings, structures, outdoor works of art, natural features, and
26 other objects having a special historical, tribal, cultural, archaeological, architectural, community, or
27 aesthetic value. Specifically, refer to historic properties as defined by National Historic Preservation
28 Act; cultural items as defined by Native American Graves and Repatriation Act; archaeological
29 resources as defined by Archaeological Resources Protection Act; sites and sacred objects to which
30 access is afforded under American Indian Religious Freedom Act; and collections and records as
31 defined in 36 CFR 79.

33 **"De minimis"** is defined as so minor in amount, quantity, or impacts as to be disregarded.

34

35 **"Ecosystem"** is a biological community of interacting organisms and their physical environment.

36

37 **"Edge effect"** is the tendency toward greater variety and density of plant and animal populations in the
38 transition area between two different habitat types.

39

40 **"Endangered Species"** is a species that is threatened with extinction throughout all or a significant portion of
41 its range.

42

43 **"Endemic Species"** is a species that is natural to or characteristic of a specific place.

44

45 **"Forb"** is a broad-leaved herb other than a grass, especially one growing in a field, prairie, or meadow

46

47 **"Glacial"** relates to, resulting from, or denoting the presence or agency of ice, especially in the form of glaciers.

48

49 **"Groundwater"** is the water in the porous rocks and soils of the earth's crust; a large proportion of the total
50 supply of fresh water.

51

52 **"Habitat"** means a place where particular plants or animals occur or could occur.

53

54 **"Hazardous Waste"** is a waste or combination of wastes which, because of its quantity, concentration, or
55 physical, chemical, or infectious characteristics, may either cause, or significantly contribute to an
56 increase in mortality or an increase in serious, irreversible illness; or pose a substantial present or
57 potential hazard to human health or the environment when improperly treated, stored, transported,
58 disposed of, or otherwise managed.

59

60 **"Historic conservation district"** means an area which contains:

61 (A) historic properties,

62 (B) historic buildings having similar or related architectural characteristics,

63 (C) cultural cohesiveness, or

64 (D) any combination of the foregoing.

65

66 **"Historic property"** or **"historic resource"** means any prehistoric or 1 historic district, site, building, structure,
67 or object included in, or eligible for inclusion on the National Register, including artifacts, records, and
68 material remains related to such a property or resource.

69

70 **"Intermittent Stream"** means a stream whose flow is interrupted during dry periods of the year.

71

72 **"Indian Tribe"** or **"Tribe"** means an Indian or Alaska native tribe, band, nation, pueblo, village or community
73 that the Secretary of the Interior acknowledges to exist as a Native American tribe pursuant to the
74 Federally Recognized Indian Tribe List Act of 1994, 25 USC 479a.

75

76 **"National Register"** or **"Register"** means the National Register of Historic Places established under section
77 101.

78

79 **"Nonattainment Area"** is an area that has been designated by the U.S. Environmental Protection Agency and
80 the appropriate state air quality agency as exceeding one more National Ambient Air Quality
81 Standards.

82

83 **"Preservation"** or **"historic preservation"** includes identification, evaluation, recordation, documentation,
84 curation, acquisition, protection, management, rehabilitation, restoration, stabilization, maintenance,
85 research, interpretation, conservation, education and training regarding the foregoing activities or any
86 combination of the foregoing activities.

87

88 **"Riparian"** is the interface between land and a river or stream.

89

90 **"Species"** is all organisms of a given kind; a group of plants or animals that breed together but are not bred
91 successfully with organisms outside their group.

92

93 **"Threatened Species"** is a species that is likely to become an endangered species within the foreseeable future
94 throughout all or a significant portion of its range.

95

96 **"Wetlands"** are considered areas that are inundated or saturated with surface or groundwater at a frequency
97 and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil,
98 including swamps, marshes, bogs, and other similar areas.
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8.0 PREPARER

Name:	Rowena Valencia-Gica, Ph.D.
Title:	Environmental Programs Supervisor WMD/WAARNG Environmental Programs, 36 Quartermaster Road, Camp Murray WA 98430
Areas of Responsibility:	NEPA Lead and Preparer of this EA; Environmental Programs Manager, NEPA/SEPA, Natural/Cultural Resources, Pest Management, Environmental Condition of Property (ECOP), Stormwater/Water Quality
Degree:	Ph.D. (Tropical Plant and Environmental Soil Sciences), University of Hawaii at Manoa, 2007
Years of Relevant Experience:	10 years of experience in preparing NEPA documents

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9.0 AGENCIES AND INDIVIDUALS CONSULTED

A. Section 106 NHPA and EA Review

State Agency:

**Washington State Department of Archaeology and
Historic Preservation (DAHP)** 1110 S.
Capitol Way, Suite 30, Olympia, WA 98501
Phone: (360) 586-3065; Fax: (360) 586-3067

Native American Tribes:

Chehalis Confederated Tribes
420 Howanut Road; PO Box 536
Oakville, WA 98568
Phone: (360) 273-5911/753-3213
Fax: (360) 273-5914
Website: www.chehalistribe.org
Contact: rbellon@chehalistribe.org

Muckleshoot Indian Tribe
39015 172nd Avenue SE
Auburn, WA 98092
Phone: (253) 939-3311; 253-876-3272
Fax: (253) 939-5311
Website: www.muckleshoot.nsn.us
Contact: Laura.murphy@muckleshoot.nsn.us

Nisqually Tribe
4820 She-Nah-Num Drive SE
Olympia, WA 98513
Phone: (360) 456-5221; Fax: (360) 407-0125
Website: www.nisqually-nsn.gov
Contact: Wall.jackie@nisqually-nsn.gov

Puyallup Tribe
3009 E Portland Ave
Tacoma, WA 98404
Phone: (253) 573-7800; 253-573-7986
Fax: (253) 573-7929
Website: www.puyallup-tribe.com
Contact: Brandon.reynon@puyalluptribe.com

Skokomish Tribe
N. 80 Tribal Center Road
Shelton, WA 98584
Phone: (360) 426-4232; Fax: (360) 877-5943
Website: www.skokomish.org
Contact: shlanay1@skokomish.org;
kmiller@skokomish.org

Squaxin Island Tribe
10 SE Squaxin Lane
Shelton, WA 98584
Phone: (360) 426-9781; Fax: (360) 426-6577
Website: www.squaxinland.org
Contact: Stephanie Neil, Archaeologist
360-432-3998; sneil@squaxin.us

Steilacoom Indian Tribe
1515 Lafayette (P.O. Box 88419)
Steilacoom, WA 98388
Phone: 253/584-6308; Fax: 253/584-0224
E-mail: info@steilacoomtribe.org

Swinomish Indian Tribal Community
11404 Moorage Way,
La Conner, WA 98257
Phone: (360) 466-3163; 360-433-7352
Fax: (360) 466-7363
Website: www.swinomish.org
Contact: jpeters@swinomish.nsn.us

B. Section 7 ESA and/or EA Review

Federal Agencies:

U.S. Fish and Wildlife Service (USFWS)

510 Desmond Drive SE, Suite 102
Lacey WA 98503

**U.S. Department of Agriculture (USDA)
Natural Resources Conservation Service
(NRCS)**

1835 Black Lake Blvd. SW #E
Olympia WA 98512
Phone: 360-704-7740

U.S. Army Corps of Engineers (USACE)

P.O Box 3755
Seattle WA 98124-3755
Phone: 206-764-3742

**National Oceanographic and Atmospheric
Administration-National Marine Fisheries Service
(NOAA-NMFS)**

1201 Northeast Lloyd Boulevard, Suite 1100
Portland, OR 97232
Phone: 503-230-5400; Fax 503-230-5435

**U.S. Forest Service (USFS)
Okanogan-Wenatchee National Forest
Headquarters**

215 Melody Lane
Wenatchee WA 98801
Phone: 509-664-9200

State Agencies:

**Washington Department of Fish
and Wildlife (WDFW)**

Natural Resources Building
1111 Washington St. SE
Olympia, WA 98501
Phone: 360-902-2200

**Washington Department of Natural Resources
(WDNR)**

Natural Heritage Program

PO Box 47014
Olympia, WA 98504-7014
Phone: 360-902-1667 Fax: 360-902-1789

Washington Department of Ecology (WDOE)

NEPA/SEPA Section

300 Desmond Drive SE
Lacey WA 98503
Phone: 360-407-6000

C. Data Request and Planning

State Agencies:

Washington State Department of Transportation (WSDOT)

WSDOT/ Records & Information Services
PO Box 47410
Olympia, WA 98504-7410
Phone: 360-705-7790 / Fax 360-705-6808

Washington State Department of Transportation (WSDOT)

Crash Data & Reporting Branch
7345 Linderson Way SW
Tumwater WA 98504
Phone: 360-570-2490; Fax: 360-570-2449

Local Agencies:

Thurston Regional Planning Council

2424 Heritage Ct SW Suite A
Olympia, WA 98502

Thurston County Resource Stewardship Department

2000 Lakeridge Drive SW
Olympia, WA 98502

D. Permits

City of Tumwater

555 Israel Road SW
Tumwater, WA 98501

E. Other Stakeholders:

Salmon Creek Neighborhood Association

P.O. Box 1441
Olympia WA 98507

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APPENDICES

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APPENDIX A
RECORDS OF PROJECT COORDINATION AND CONSULTATION

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A. Section 106 Consult

- MFR for SHPO and Tribal Consultation



**STATE OF WASHINGTON
MILITARY DEPARTMENT**
Camp Murray, WA 98430-5000

MEMORANDUM FOR RECORD

November 17, 2016

TO: ARNG-ILE-T
111 So. George Mason Drive
Arlington, VA 22204-1382

FROM: Rowena Valencia-Gica, Ph.D.
Environmental Specialist
WAARNG/WMD

SUBJECT: Tribal and SHPO Consultation for the Construction and Operation of a Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) Facility in Tumwater, Thurston County, Washington

The WMD/WAARNG through the Environmental Program Section initiated its SHPO and Tribal consultation for the proposed Tumwater Readiness Center (TRC) project as part of the preparation of the Drafts TRC Environmental Assessment (EA) and Finding of No Significant Impact (FNSI) to seven federally-recognized tribes and one non-federally recognized tribe identified as having potential cultural affiliation and interest with the proposed project site's natural and cultural resources.

First formal consultation with the SHPO occurred on March 2, 2015 and concurrence on the area of potential effect (APE) was received on May 13, 2015. An introductory letter was sent out to the seven Tribes on March 9, 2015: Chehalis Confederated Tribes, Muckleshoot Indian Tribe, Nisqually Tribe, Puyallup Tribe, Skokomish Tribe, Squaxin Island Tribe, Swinomish Indian Tribal Community, and Steilacoom Indian Tribe (non-federally recognized). Responses were received from the Swinomish Indian Tribal Community, Squaxin Island Tribe, and Skokomish Tribe. The Squaxin Island Tribe indicated that they do not have specific cultural concerns regarding the project. The Skokomish Tribe said that they do not have comments for the project as it falls outside their usual and accustomed area. This Tribe was removed from future TRC mailing list as requested. The SHPO and the Swinomish Tribe requested for an archaeological survey of the project site. With the exception of Swinomish Tribe, the other six Tribes were consulted again by the CRC Consultants (the contractor hired by the WAARNG to do the archaeological survey) on July 14, 2015. The cultural resources assessment survey was done on August 22-24, 2015 and a final report was submitted on October 14, 2015.

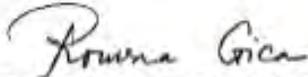
A second letter to the SHPO requesting for the review of the cultural resources study as well as concurrence on the WAARNG's determination of "No Historic Properties Affected" based on the review of the project and cultural assessment report was sent on October 20, 2015 and concurrence was received the same day.

As the WAARNG proceeded with geotechnical studies for the site, it was realized that the original proposed location of construction in the central portion was not feasible due to soil liquefaction and low infiltration rates issues. It would be costly to implement mitigation options to address those concerns. Therefore, the WAARNG decided to explore alternative areas within the 53-ac site and found that the northern portion has soils that are more suitable for construction. As such, the WAARNG proposes to construct the TRC in this northern location.

On November 10, 2016, the WAARNG sent a third letter to SHPO and the concerned Tribes requesting for their concurrence on the original determination of "No Historic Properties Affected". The SHPO and the Nisqually Tribe concurred on November 16, 2016. No response has been received from other Tribes consulted as of the date of this MFR.

A summary of SHPO and Tribal correspondence is presented in the attached table.

Point of contact for this action is the undersigned at 253-512-8704 or Rowena.valencia-gica@mil.wa.gov.


Rowena Valencia-Gica, Ph.D.

Summary of SHPO and Tribal Correspondence

Date	Recipient	Sender	Type	Subject
SHPO				
3/2/2015	Dr. Rob Whitlam, DAHP	Peggy Ulman, WMD	Letter	APE for the TRC project
5/13/2015	Peggy Ulman, WMD	Dr. Rob Whitlam, DAHP	Letter	Concurrence on the APE
10/20/2015	Dr. Rob Whitlam, DAHP	Peggy Ulman, WMD	Letter	Request for review of the archaeological survey for the TRC site an concurrence on WAARNG's determination of "No Historic Properties Affected"
10/20/2015	Peggy Ulman, WMD	Dr. Rob Whitlam, DAHP	Letter	Concurrence on the results of the archaeological survey for the TRC site and on WAARNG's determination of "No Historic Properties Affected"
11/10/2016	Dr. Rob Whitlam, DAHP	R. Gica, WMD	Letter	Request for concurrence on WAARNG's determination of "No Historic Properties Affected" given the change in location of construction (northern portion instead of central portion within the 53-ac site) for TRC/FMS
11/16/2016	Rowena Valencia-Gica, WMD	Dr. Rob Whitlam, DAHP	Letter	Concurrence on the previous determination of "No Historic Properties Affected" for the TRC site given the change in location of construction
CHEHALIS CONFEDERATED TRIBES				
3/9/2015	Richard Bellon	Peggy Ulman, WMD	Letter	Initial information about project location and preliminary plans, request for comments
7/14/2015	Richard Bellon	Cultural Resource Consultants, Inc. (CRC)	Letter	Collecting information for cultural resource assessment for Tumwater Readiness Center, request for comments
10/5/2015	Richard Bellon	Peggy Ulman, WMD	Voicemail & email	Cultural resource assessment completed. Copy of the report to be sent via email and regular mail.
10/14/2015	Richard Bellon	Peggy Ulman, WMD	Letter & email	Cultural resource assessment report and cover letter - request for concurrence with determination of no historic properties affected.
11/13/2015	Richard Bellon	Peggy Ulman, WMD	Voicemail	Reminder of end of comment period on 11/14, request for input.
11/23/2015	Richard Bellon	Peggy Ulman, WMD	Email	Reminder of end of comment period on 11/14, final request for input.
11/10/2016	Richard Bellon	R. Gica, WMD	Letter	Request for concurrence on WAARNG's determination of "No Historic Properties Affected" given the change in location of construction (northern portion instead of central portion within the 53-ac site) for TRC/FMS
MUCKLESHOOT INDIAN TRIBE				
3/9/2015	Laura Murphy	Peggy Ulman, WMD	Letter	Initial information about project location and preliminary plans, request for comments
7/14/2015	Laura Murphy	CRC, Inc.	Letter	Collecting information for cultural resource assessment for Tumwater Readiness Center, request for comments

10/5/2015	Laura Murphy	Peggy Ulman, WMD	Voicemail & email	Cultural resource assessment completed. Copy of the report to be sent via email and regular mail.
10/14/2015	Laura Murphy	Peggy Ulman, WMD	Letter & email	Cultural resource assessment report and cover letter - request for concurrence with determination of no historic properties affected.
11/12/2015	Laura Murphy	Peggy Ulman, WMD	Voicemail	Reminder of end of comment period on 11/14, request for input.
11/23/2015	Laura Murphy	Peggy Ulman, WMD	Email	Reminder of end of comment period on 11/14, final request for input.
11/10/2016	Laura Murphy	Rowena Valencia-Gica, WMD	Letter	Request for concurrence on WAARNG's determination of "No Historic Properties Affected" given the change in location of construction (northern portion instead of central portion within the 53-ac site) for TRC/FMS
NISQUALLY INDIAN TRIBE				
3/9/2015	Jackie Wall, THPO	WMD	Letter	Initial information about project location and preliminary plans, request for comments
7/14/2015	Jackie Wall, THPO	CRC, Inc.	Letter	Collecting information for cultural resource assessment for Tumwater Readiness Center, request for comments
10/5/2015	Jackie Wall, THPO	WMD	Voicemail & email	Cultural resource assessment completed. Copy of the report to be sent via email and regular mail.
10/14/2015	Jackie Wall, THPO & Annette Bullchild	WMD	Email	Cultural resource assessment report and cover letter - request for concurrence with determination of no historic properties affected.
10/14/2015	WMD	Jackie Wall, THPO	Email	"The Nisqually Indian Tribe has reviewed the report you provided for the above-named project. The Nisqually Indian Tribe has no further information or concerns at this time. Please keep me informed if there are any Inadvertent Discoveries of Archaeological Resources / Human Burials."
11/10/2016	Jackie Wall, THPO & Annette Bullchild	Rowena Valencia-Gica, WMD	Letter	Request for concurrence on WAARNG's determination of "No Historic Properties Affected" given the change in location of construction (northern portion instead of central portion within the 53-ac site) for TRC/FMS
11/16/2016	Rowena Valencia-Gica, WMD	Jackie Wall, THPO & Annette Bullchild	Letter	Concurrence on the previous determination of "No Historic Properties Affected" for the TRC site given the change in location of construction
PUYALLUP TRIBE				
3/9/2015	Brandon Reynon	WMD	Letter	Initial information about project location and preliminary plans, request for comments
7/14/2015	Brandon Reynon	CRC, Inc.	Letter	Collecting information for cultural resource assessment for Tumwater Readiness Center, request for comments
10/5/2015	Brandon Reynon	WMD	Voicemail & email	Cultural resource assessment completed. Copy of the report to be sent via email and regular mail.
10/14/2015	Brandon Reynon	WMD	Letter & email	Cultural resource assessment report and cover letter - request for concurrence with determination of no historic properties affected.

11/13/2015	Brandon Reynon	WMD	Voicemail	Reminder of end of comment period on 11/14, request for input.
11/23/2015	Brandon Reynon	WMD	Email	Reminder of end of comment period on 11/14, final request for input.
11/10/2016	Brandon Reynon	Rowena Valencia-Gica, WMD	Letter	Request for concurrence on WAARNG's determination of "No Historic Properties Affected" given the change in location of construction (northern portion instead of central portion within the 53-ac site) for TRC/FMS
SKOKOMISH TRIBE				
3/9/2015	Kris Miller, THPO	WMD	Letter	Initial information about project location and preliminary plans, request for comments
3/25/2015	WMD	Kris Miller, THPO	Email	The Skokomish THPO has reviewed the materials sent in regard to the Thurston County readiness center. We do not have comments for this project as it falls outside the usual and accustomed area for the Skokomish Tribe.
7/14/2015	Kris Miller, THPO	CRC, Inc.	Letter	Collecting information for cultural resource assessment for Tumwater Readiness Center, request for comments
10/5/2015	Kris Miller	WMD	Email	Copy of cultural resource assessment was offered. Inquired if removal from the mailing list for this project was preferred.
10/5/2015	WMD	Kris Miller, THPO	Email	"The Skokomish Tribe can be removed from mailing list for this specific project."
SQUAXIN ISLAND TRIBE				
3/9/2015	Rhonda Foster, THPO	WMD	Letter	Initial information about project location and preliminary plans, request for comments
3/20/2015	WMD	Stephanie Neil, Archaeologist	Email	We have no specific cultural resource concerns regarding this project. If additional information on the project becomes available, or if any archaeological resources are uncovered, please halt work in the area of discovery and contact us for further consultation.
7/14/2015	Rhonda Foster & Stephanie Neil	CRC, Inc.	Letter	Collecting information for cultural resource assessment for Tumwater Readiness Center, comments requested.
10/5/2015	Stephanie Neil	WMD	Email	Cultural resource assessment completed. Copy of the report to be sent via email.
10/14/2015	Rhonda Foster, THPO	WMD	Email	Cultural resource assessment report and cover letter - request for concurrence with determination of no historic properties affected.
11/13/2015	Stephanie Neil	WMD	Voicemail	Reminder of end of comment period on 11/14, request for input.
11/23/2015	Rhonda Foster & Stephanie Neil	WMD	Email	Reminder of end of comment period on 11/14, final request for input.
11/24/2015	WMD	Stephanie Neil	Email	"I am responding to you on behalf of Rhonda Foster, THPO. We concur that there will no historic properties affected by the project as proposed. If any archaeological or cultural resources are uncovered during implementation, please halt work in the area of discovery and contact us and DAHP for further consultation."
11/10/2016	Rhonda Foster	R. Gica, WMD	Letter	Request for concurrence on WAARNG's determination of "No Historic Properties Affected" given the change in location of construction (northern portion instead of central portion within the 53-ac site) for TRC/FMS

STEILACOOM INDIAN TRIBE				
3/9/2015	Danny K. Marshall, Chair	WMD	Letter	Initial information about project location and preliminary plans, request for comments
7/14/2015	Danny K. Marshall, Chair	CRC, Inc.	Letter	Collecting information for cultural resource assessment for Tumwater Readiness Center, request for comments
10/5/2015	Danny K. Marshall, Chair	WMD	Voicemail & email	Cultural resource assessment completed. Copy of the report to be sent via email and regular mail.
10/14/2015	Danny K. Marshall, Chair	WMD	Letter & email	Cultural resource assessment report and cover letter - request for concurrence with determination of no historic properties affected.
11/13/2015	Danny K. Marshall, Chair	WMD	Voicemail	Reminder of end of comment period on 11/14, request for input.
11/23/2015	Danny K. Marshall, Chair	WMD	Email	Reminder of end of comment period on 11/14, final request for input.
11/10/2016	Danny K. Marshall, Chair	R. Gica, WMD	Letter	Request for concurrence on WAARNG's determination of "No Historic Properties Affected" given the change in location of construction (northern portion instead of central portion within the 53-ac site) for TRC/FMS
SWINOMISH INDIAN TRIBAL COMMUNITY				
3/9/2015	Larry Campbell, THPO & Josephine Peters, Cultural Resources	WMD	Letter	Initial information about project location and preliminary plans, request for comments
3/12/2015	WMD	Josephine Peters	Email	Archaeological survey needed before comments can be provided.
10/5/2015	Larry Campbell, Josephine Peters & Theresa Trebon	WMD	Email	Cultural resource assessment completed. Copy of the report to be sent via email.
10/14/2015	Larry Campbell, Josephine Peters & Theresa Trebon	WMD	Email	Cultural resource assessment report and cover letter - request for concurrence with determination of no historic properties affected.
11/13/2015	Josephine Peters	WMD	Voicemail	Reminder of end of comment period on 11/14, request for input.
11/23/2015	Larry Campbell, Josephine Peters & Theresa Trebon	WMD	Email	Reminder of end of comment period on 11/14, final request for input.
11/10/2016	Larry Campbell, Josephine Peters	R. Gica, WMD	Letter	Request for concurrence on WAARNG's determination of "No Historic Properties Affected" given the change in location of construction (northern portion instead of central portion within the 53-ac site) for TRC/FMS

- **APE Letter to SHPO**



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

March 2, 2015

Allyson Brooks, Ph.D.
State Historic Preservation Officer
Washington State Department of Archaeology and Historic Preservation
PO Box 48343
Olympia, WA 98504-8343

Re: Thurston County Readiness Center, Tumwater, Washington

Dear Dr. Brooks:

The Washington Army National Guard (WAARNG) is initiating the scoping and planning phase for the proposed construction and operation of the Thurston County Readiness Center in Tumwater, Washington.

The WAARNG anticipates that an Environmental Assessment (EA) will be prepared for the Proposed Action. The EA will be prepared in accordance with Council on Environmental Quality (CEQ) regulations to comply with the National Environmental Policy Act (NEPA) of 1969. The Proposed Action includes construction of a 85,000 square foot two-story readiness center of permanent masonry type construction and associated supporting facilities including a vehicle storage building, parking areas, and storm water basins. The property sought for this Proposed Action totals about 53 acres; however, approximately 17 acres would be required to facilitate construction and operation of the Proposed Action. The remaining 36 acres would be undeveloped and maintained for the purpose of infiltrating stormwater in an area with high ground water concerns. Since the construction impacts will be limited to 17 acres, the Area of Potential Effect (APE) is assumed to be that 17-acre footprint of development in the central portion of the 53-acre property. A map of the APE is enclosed for your review.

The readiness center would maintain a staff of 20 people for day-to-day operations with approximately 300 Soldiers occupying the facility two days per month. Activities involved with the operation of the readiness center would include administrative activities, individual training activities, and logistics. The land affected by the Proposed Action is under the jurisdiction of the City of Tumwater in Thurston County, Washington. Construction activities would commence in FY 17 with operational status anticipated by the end of 2018.

The proposed Thurston County Readiness Center will consolidate the operations of the existing National Guard readiness centers in Olympia and Puyallup. Both the Olympia and Puyallup facilities will be divested after the new Thurston County Readiness Center is operational.

With this letter, we request your concurrence with our identification of the APE for this Proposed Action. We look forward to receiving your response. If you need additional information, please contact Peggy Ulman at (253)512-7578 or email peggy.ulman@mil.wa.gov. Finally, thank you for your assistance with this undertaking.

Sincerely,



Peggy Ulman
Environmental Specialist

- **Concurrence on APE from SHPO**



Alyson Brooks Ph.D., Director
State Historic Preservation Officer

May 13, 2015

Ms. Peggy Ulman
Military Department
State of Washington
Camp Murray, Washington 98430-5000

RE: Thurston County Readiness Center Project
Log No.: 051315-02-BPA

Dear Ms. Ulman:

Thank you for contacting our department. We have reviewed the materials you provided for the proposed Thurston County Readiness Center Project in Tumwater, Thurston County, Washington.

We concur with the proposed Area of Potential Effect (APE) as described in your letter and illustrated in the attached maps.

We look forward to further consultations as you consult with the concerned tribal governments, provide the results of your identification efforts, and render your determination of effect.

We would also request receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR.800.4(a)(4).

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with the Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR.800.4.). Should additional information become available, our assessment may be revised.

Thank you for the opportunity to comment and we look forward to receiving the results of your consultation efforts, the professional archaeological survey report, and your Determination of Effect.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 890-2615
email: rob.whitlam@dahp.wa.gov



- **Introductory Letter to the Tribes**



STATE OF WASHINGTON
MILITARY DEPARTMENT

Camp Murray • Tacoma, Washington 98430-5000

March 9, 2015

Danny K. Marshall
Chair
Steilacoom Indian Tribe
1515 Lafayette Street
Steilacoom, WA 98388

Re: Thurston County Readiness Center, Tumwater, Washington

Dear Mr. Marshall:

The Washington Army National Guard (WAARNG) is initiating the scoping and planning phase for the proposed construction and operation of a new readiness center in Tumwater, Washington. In accordance with 36 CFR Part 800, Section 106 of the National Historic Preservation Act (NHPA), the WAARNG is consulting with you in regard to this proposed action:

The WAARNG anticipates that an Environmental Assessment (EA) will be prepared for the proposed readiness center project. The EA will be prepared in accordance with Council on Environmental Quality (CEQ) regulations to comply with the National Environmental Policy Act (NEPA) of 1969. In addition, as outlined in 36 CFR 800.8(c), the WAARNG plans to coordinate compliance with Section 106 of the National Historic Preservation Act.

The proposed action includes construction of an 85,000 square foot two-story readiness center of permanent masonry type construction and associated supporting facilities including a 29,000 square foot vehicle storage building, parking areas, and storm water basins. The property sought for this proposed action totals about 53 acres; however, approximately 17 acres would be required for construction and operation of the readiness center. The remaining 36 acres would be undeveloped and maintained for the purpose of infiltrating storm water in an area with high ground water concerns. A map of the Area of Potential Effect (APE) is enclosed to assist with your review.

The readiness center would maintain a staff of 20 people for day-to-day operations with approximately 300 Soldiers occupying the facility two days per month. Activities involved with the operation of the readiness center would include administrative activities, individual training activities, and logistics. The proposed construction site is under the jurisdiction of the City of Tumwater in Thurston County, Washington. Construction activities would begin in 2017 with operational status anticipated by the end of 2018.

March 9, 2015
Page 2

The proposed Thurston County Readiness Center will consolidate the operations of the existing National Guard readiness centers in Olympia and Puyallup. Both the Olympia and Puyallup facilities will be divested after the new Thurston County Readiness Center is operational.

We request your participation in the planning and scoping process and solicit any particular concerns or recommendations that you may have in the area of this project including those regarding resources that may be of special interest to you. When completed the draft environmental assessment will be available for public review. The WAARNG is simultaneously consulting with seven Native American tribes (see attached list). Please let us know if you feel additional Native American tribes or contacts should review this information.

The project manager for our Section 106 consultation will be Peggy Ulman, an Environmental Specialist on my staff. Please provide any comments or information within 30 days of the date of this letter. Written responses should be sent directly to :

Washington Military Department
Attn: Peggy Ulman, Environmental Specialist
Building 36 Quartermaster Road
Camp Murray, WA 98430

Electronic comments can be sent to peggy.ulman@mil.wa.gov. If you have any questions, please contact Peggy Ulman at (253)512-7578 or peggy.ulman@mil.wa.gov. Your assistance in providing information is greatly appreciated.

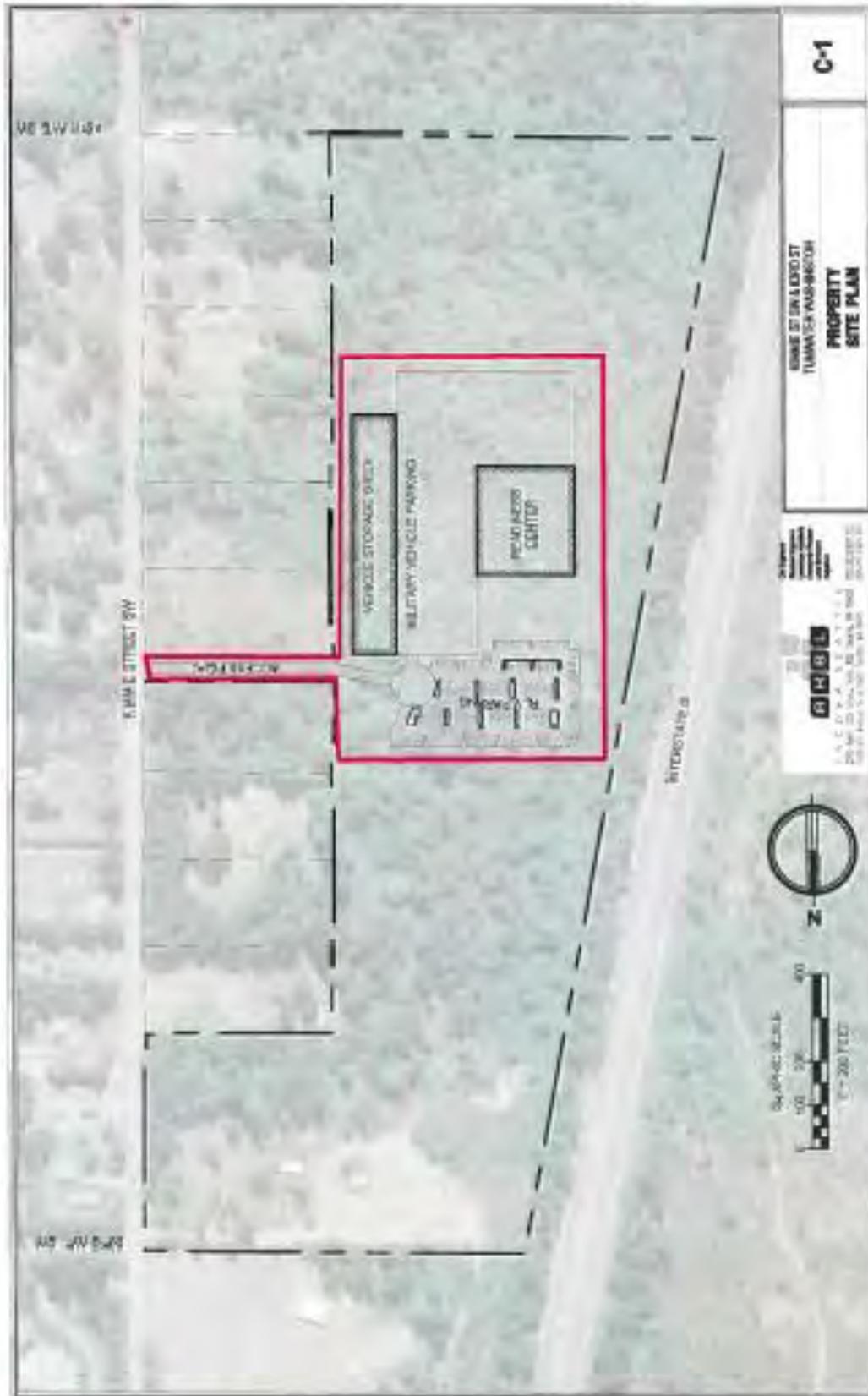
Sincerely,



Thomas O. Skjervold
Environmental Program Manager

Enclosure: APE Map
List of Native American Tribes Contacted





Thurston County Readiness Center

The Area of Potential Effect (APE) is outlined in red above. The 17-acre footprint is in the central portion of a larger group of parcels totaling 53 acres in size.

Thurston County Readiness Center

List of Native American Tribes Contacted – March 9, 2015

Chehalis Confederated Tribes

Muckleshoot Indian Tribe

Nisqually Tribe

Puyallup Tribe

Skokomish Tribe

Squaxin Island Tribe

Steilacoom Indian Tribe



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

March 9, 2015

Rhonda Foster
THPO
Squaxin Island Tribe
SE 70 Squaxin Lane
Shelton, WA 98584-9200

Re: Thurston County Readiness Center, Tumwater, Washington

Dear Ms. Foster:

The Washington Army National Guard (WAARNG) is initiating the scoping and planning phase for the proposed construction and operation of a new readiness center in Tumwater, Washington. In accordance with 36 CFR Part 800, Section 106 of the National Historic Preservation Act (NHPA), the WAARNG is consulting with you in regard to this proposed action.

The WAARNG anticipates that an Environmental Assessment (EA) will be prepared for the proposed readiness center project. The EA will be prepared in accordance with Council on Environmental Quality (CEQ) regulations to comply with the National Environmental Policy Act (NEPA) of 1969. In addition, as outlined in 36 CFR 800.8(c), the WAARNG plans to coordinate compliance with Section 106 of the National Historic Preservation Act.

The proposed action includes construction of an 85,000 square foot two-story readiness center of permanent masonry type construction and associated supporting facilities including a 29,000 square foot vehicle storage building, parking areas, and storm water basins. The property sought for this proposed action totals about 53 acres; however, approximately 17 acres would be required for construction and operation of the readiness center. The remaining 36 acres would be undeveloped and maintained for the purpose of infiltrating storm water in an area with high ground water concerns. A map of the Area of Potential Effect (APE) is enclosed to assist with your review.

The readiness center would maintain a staff of 20 people for day-to-day operations with approximately 300 Soldiers occupying the facility two days per month. Activities involved with the operation of the readiness center would include administrative activities, individual training activities, and logistics. The proposed construction site is under the jurisdiction of the City of Tumwater in Thurston County, Washington. Construction activities would begin in 2017 with operational status anticipated by the end of 2018.

March 9, 2015
Page 2

The proposed Thurston County Readiness Center will consolidate the operations of the existing National Guard readiness centers in Olympia and Puyallup. Both the Olympia and Puyallup facilities will be divested after the new Thurston County Readiness Center is operational.

We request your participation in the planning and scoping process and solicit any particular concerns or recommendations that you may have in the area of this project including those regarding resources that may be of special interest to you. When completed the draft environmental assessment will be available for public review. The WAARNG is simultaneously consulting with seven Native American tribes (see attached list). Please let us know if you feel additional Native American tribes or contacts should review this information.

The project manager for our Section 106 consultation will be Peggy Ulman, an Environmental Specialist on my staff. Please provide any comments or information within 30 days of the date of this letter. Written responses should be sent directly to :

Washington Military Department
Attn: Peggy Ulman, Environmental Specialist
Building 36 Quartermaster Road
Camp Murray, WA 98430

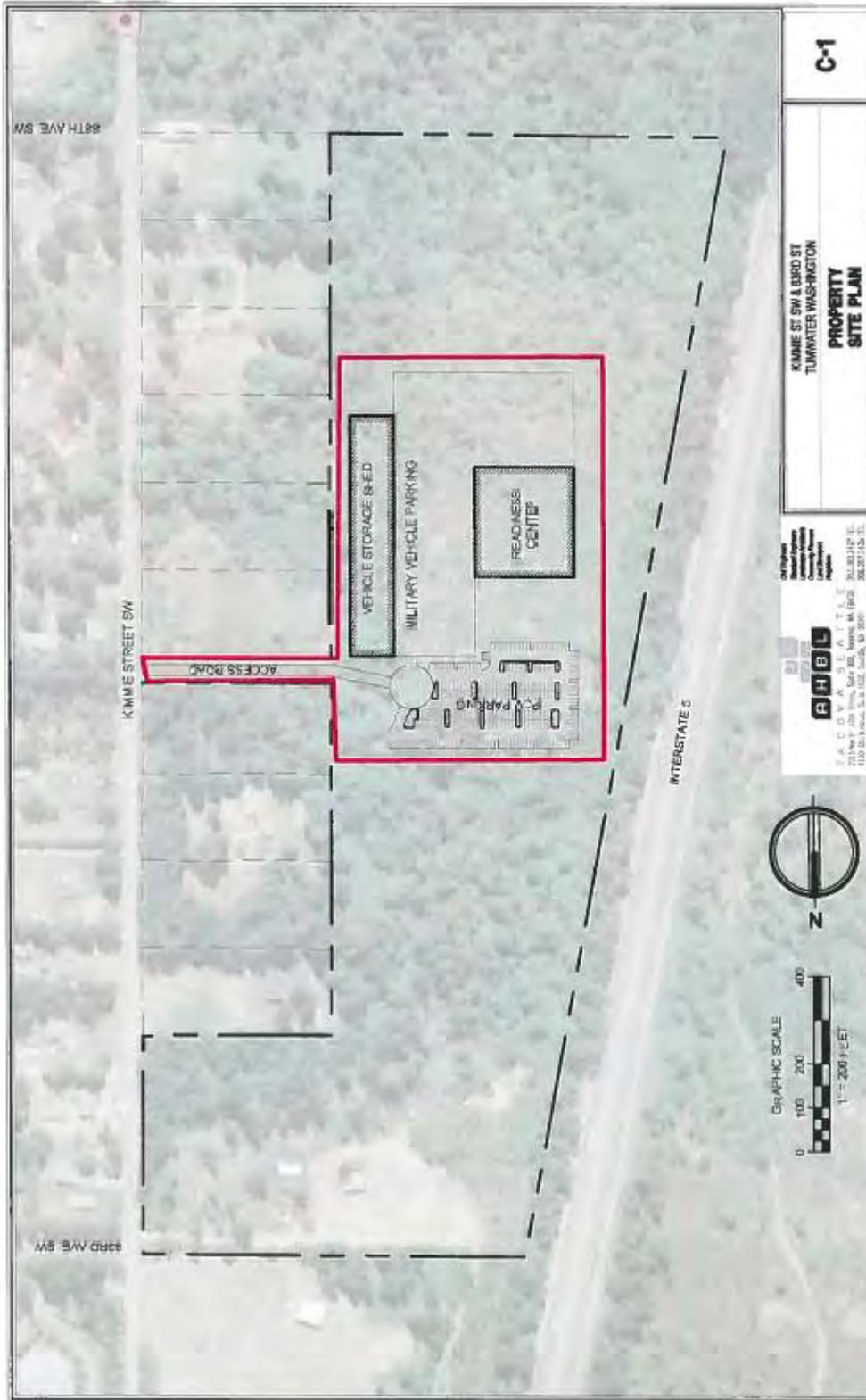
Electronic comments can be sent to peggy.ulman@mil.wa.gov. If you have any questions, please contact Peggy Ulman at (253)512-7578 or peggy.ulman@mil.wa.gov. Your assistance in providing information is greatly appreciated.

Sincerely,



Thomas O. Skjervold
Environmental Program Manager

Enclosure: APE Map
List of Native American Tribes Contacted



Thurston County Readiness Center

The Area of Potential Effect (APE) is outlined in red above. The 17-acre footprint is in the central portion of a larger group of parcels totaling 53 acres in size.

Thurston County Readiness Center

List of Native American Tribes Contacted – March 9, 2015

Chehalis Confederated Tribes

Muckleshoot Indian Tribe

Nisqually Tribe

Puyallup Tribe

Skokomish Tribe

Squaxin Island Tribe

Steilacoom Indian Tribe



STATE OF WASHINGTON
MILITARY DEPARTMENT

Camp Murray • Tacoma, Washington 98430-5000

March 9, 2015

Kris Miller
THPO
Skokomish Tribe
N 80 Tribal Center Road
Skokomish, WA 98584-9748

Re: Thurston County Readiness Center, Tumwater, Washington

Dear Kris Miller:

The Washington Army National Guard (WAARNG) is initiating the scoping and planning phase for the proposed construction and operation of a new readiness center in Tumwater, Washington. In accordance with 36 CFR Part 800, Section 106 of the National Historic Preservation Act (NHPA), the WAARNG is consulting with you in regard to this proposed action.

The WAARNG anticipates that an Environmental Assessment (EA) will be prepared for the proposed readiness center project. The EA will be prepared in accordance with Council on Environmental Quality (CEQ) regulations to comply with the National Environmental Policy Act (NEPA) of 1969. In addition, as outlined in 36 CFR 800.8(c), the WAARNG plans to coordinate compliance with Section 106 of the National Historic Preservation Act.

The proposed action includes construction of an 85,000 square foot two-story readiness center of permanent masonry type construction and associated supporting facilities including a 29,000 square foot vehicle storage building, parking areas, and storm water basins. The property sought for this proposed action totals about 53 acres; however, approximately 17 acres would be required for construction and operation of the readiness center. The remaining 36 acres would be undeveloped and maintained for the purpose of infiltrating storm water in an area with high ground water concerns. A map of the Area of Potential Effect (APE) is enclosed to assist with your review.

The readiness center would maintain a staff of 20 people for day-to-day operations with approximately 300 Soldiers occupying the facility two days per month. Activities involved with the operation of the readiness center would include administrative activities, individual training activities, and logistics. The proposed construction site is under the jurisdiction of the City of Tumwater in Thurston County, Washington. Construction activities would begin in 2017 with operational status anticipated by the end of 2018.

March 9, 2015
Page 2

The proposed Thurston County Readiness Center will consolidate the operations of the existing National Guard readiness centers in Olympia and Puyallup. Both the Olympia and Puyallup facilities will be divested after the new Thurston County Readiness Center is operational.

We request your participation in the planning and scoping process and solicit any particular concerns or recommendations that you may have in the area of this project including those regarding resources that may be of special interest to you. When completed the draft environmental assessment will be available for public review. The WAARNG is simultaneously consulting with seven Native American tribes (see attached list). Please let us know if you feel additional Native American tribes or contacts should review this information.

The project manager for our Section 106 consultation will be Peggy Ulman, an Environmental Specialist on my staff. Please provide any comments or information within 30 days of the date of this letter. Written responses should be sent directly to :

Washington Military Department
Attn: Peggy Ulman, Environmental Specialist
Building 36 Quartermaster Road
Camp Murray, WA 98430

Electronic comments can be sent to peggy.ulman@mil.wa.gov. . If you have any questions, please contact Peggy Ulman at (253)512-7578 or peggy.ulman@mil.wa.gov. Your assistance in providing information is greatly appreciated.

Sincerely,



Thomas O. Skjervold
Environmental Program Manager

Enclosure: **APE Map**
 List of Native American Tribes Contacted





Thurston County Readiness Center

The Area of Potential Effect (APE) is outlined in red above. The 17-acre footprint is in the central portion of a larger group of parcels totaling 53 acres in size.

Thurston County Readiness Center

List of Native American Tribes Contacted – March 9, 2015

Chehalis Confederated Tribes

Muckleshoot Indian Tribe

Nisqually Tribe

Puyallup Tribe

Skokomish Tribe

Squaxin Island Tribe

Steilacoom Indian Tribe

- **E-mails from Tribes**

1. Skokomish Tribe

From: Miller, Kris <kmillers@skokomish.org>
Sent: Wednesday, March 25, 2015 8:41 AM
To: Ulman, Peggy L (MIL)
Subject: Thurston County Readiness Center, Tumwater, WA

Good morning Ms. Ulman,

The Skokomish THPO has reviewed materials sent to us in regards to the Thurston County Readiness Center, we do not have comments for this project as it falls outside of our usual and accustomed area.

Thank you for the opportunity to review.

Sincerely,

--

Kris Miller

Tribal Historic Preservation Officer
80 N Tribal Center Road
Skokomish, WA 98584
shlanay1@skokomish.org

From: Miller, Kris <kmillers@skokomish.org>
Sent: Monday, October 05, 2015 4:03 PM
To: Ulman, Peggy L (MIL)
Subject: Re: Thurston County Readiness Center, Tumwater, WA

Peggy Ulman
Environmental Specialist

You can remove Skokomish from the mailing list for this specific project yes.

Thank you,

Kris Miller

On Mon, Oct 5, 2015 at 9:40 AM, Ulman, Peggy L (MIL) <Peggy.Ulman@mil.wa.gov> wrote:
Kris Miller
Tribal Historic Preservation Officer
Skokomish Tribe

Thank you for your response in regard to the information provided for the proposed construction of a new Washington Army National Guard readiness center in Tumwater, Washington. A cultural resource assessment was completed in September 2015 for the 53-acre property, and the Washington Military Department is preparing to send the report to interested tribes. Since you mentioned that this project falls outside of your usual and accustomed area, would you prefer to have the Skokomish Tribe removed from the mailing list? If you would like to see a copy of the report, please let me know if you would prefer a printed copy, CD, or a PDF via email.

Thank you,
Peggy

Peggy Ulman
Environmental Specialist
Building 36, Quartermaster Road
Washington Military Department
Camp Murray, WA 98430
peggy.ulman@mil.wa.gov
253.512.7578

From: Miller, Kris [mailto:kmillers@skokomish.org]
Sent: Wednesday, March 25, 2015 8:41 AM
To: Ulman, Peggy L (MIL) <Peggy.Ulman@mil.wa.gov>
Subject: Thurston County Readiness Center, Tumwater, WA

Good morning Ms. Ulman,

The Skokomish THPO has reviewed materials sent to us in regards to the Thurston County Readiness Center, we do not have comments for this project as it falls outside of our usual and accustomed area.

Thank you for the opportunity to review.

Sincerely,

--

Kris Miller

Tribal Historic Preservation Officer
80 N Tribal Center Road
Skokomish, WA 98584
shlanay1@skokomish.org

2. Swinomish Tribe

From: Josephine Peters <jpeters@swinomish.nsn.us>
Sent: Thursday, March 12, 2015 4:26 PM
To: Ulman, Peggy L (MIL)
Subject: Readiness Center

Thank you for notifying the Swinomish Indian Tribal Community on the Readiness Center project. I would to see an Arch. survey done before I can make any more comments. Thank you

Josephine Peters
Swinomish Indian Tribal Community
Cultural Resource Technician
11430 Moorage Way
LaConner, Wa 98257
(360)466-7352
Monday-Thursday

3. Squaxin Island Tribe

From: Stephanie Neil <sneil@squaxin.us>
Sent: Friday, March 20, 2015 2:50 PM
To: Ulman, Peggy L (MIL)
Subject: Thurston County Readiness Center

Peggy,

Thank you for contacting the Squaxin Island Tribe Cultural Resource Department regarding the Thurston County Readiness Center for our review and comment. I am writing to you on behalf of Rhonda Foster, THPO. We have no specific cultural resource concerns to share with you regarding this project. If additional information on the project becomes available, or if any archaeological resources are uncovered, please halt work in the area of discovery and contact us for further consultation.

Thank You,

Stephanie Neil
Archaeologist, Squaxin Island Tribe
360-432-3998
sneil@squaxin.us

From: Stephanie Neil <sneil@squaxin.us>
Sent: Tuesday, November 24, 2015 3:52 PM
To: Ulman, Peggy L (MIL)
Subject: RE: Tumwater Readiness Center

Peggy

I'm sorry for the lateness of this response, we've been busy here the last month.

Thank you for contacting the Squaxin Island Tribe Cultural Resources Department regarding the above listed project for our review and comment and for providing us with a copy of the cultural resource report. I am responding to you on behalf of Rhonda Foster, THPO. We concur that there will be no historic properties affected by the project as proposed. If any archaeological or cultural resources are uncovered during implementation, please halt work in the area of discovery and contact us and DAHP for further consultation.

Thank You,

Stephanie Neil
Archaeologist, Squaxin Island Tribe
360-432-3998
360-972-6631
sneil@squaxin.us

From: Ulman, Peggy L (MIL) [mailto:Peggy.Ulman@mil.wa.gov]
Sent: Wednesday, October 14, 2015 2:41 PM
To: 'rfoster@squaxin.nsn.us'; Stephanie Neil
Subject: Tumwater Readiness Center

Rhonda Foster, THPO
Stephanie Neil, Archaeologist

Attached to this email, you will find a copy of the cultural resource assessment report for the Tumwater Readiness Center in Thurston County. As noted in the attached cover letter, any comments on this project are requested within 30 days of receipt of this email. If you have questions, please let me know.

Peggy Ulman
Environmental Specialist, Building 36, Quartermaster Road, Washington Military Department, Camp Murray,
WA 98430
253.512.7578

- **2nd Letter to SHPO (CR Report + Concurrence on Determination)**



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

October 20, 2015

Robert G. Whitlam, Ph.D.
State Archaeologist
Washington State Department of Archaeology and Historic Preservation
PO Box 48343
Olympia, WA 98504-8343

Re: Tumwater Readiness Center, Log No. 051315-02-BPA

Dear Dr. Whitlam:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, we are providing information for your review and concurrence regarding the above-referenced project. In previous correspondence, this project was referred to as the Thurston County Readiness Center. The project's name has been changed to the Tumwater Readiness Center; however the project location and function remain the same.

The proposed project site, located in Tumwater, totals 53 acres in size and includes six tax parcels; however, the construction footprint will primarily impact about 17 acres in the central portion of the site. The property is owned by the Washington Military Department. Funding for the proposed undertaking will be provided by the National Guard Bureau (federal). Bordered on the west by Interstate 5, on the east by Kimmie Road, on the north by Frontage Road, and on the south by undeveloped land, the proposed undertaking includes construction a two-story readiness center building (about 90,904 sq. ft.), a vehicle storage building (29,701 sq. ft.) and smaller storage buildings as well as parking areas, utilities, and stormwater basins. The proposed Tumwater Readiness Center will consolidate the operations of the existing National Guard readiness centers in Olympia and Puyallup. Both the Olympia and Puyallup National Guard facilities will be divested after the new Tumwater Readiness Center is operational.

A copy of the cultural resource assessment report, completed in October 2015, is enclosed for your review. As stated in the report, no previously identified archaeological sites are located within the project boundary. The assessment did not identify any cultural or archaeological resources that could potentially be affected by this project. Based on this information, the Washington Military Department has made a finding of "No Historic Properties Affected" pursuant to 36 CFR 800.4(d)(1).

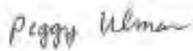
A copy of the cultural resource assessment report has been sent to the following tribes with a request for comments and input: Chehalis Confederated Tribes, Muckleshoot Indian Tribe, Nisqually Indian Tribe, Puyallup Tribe, Squaxin Island Tribe, Steilacoom Tribe, and Swinomish Indian Community. The Skokomish Tribe was also contacted but declined to comment on the undertaking since the project site is outside the tribe's usual and accustomed area.

Tumwater Readiness Center
Page 2 of 2
October 20, 2015

Ms. Jackie Wall, THPO, Nisqually Indian Tribe, provided a comment letter stating that the Nisqually Indian Tribe has no further information or concerns at this time but requested to be informed of any inadvertent discoveries of archaeological resources or burials at the site. A copy of the letter from the Nisqually Indian Tribe is attached. Any other comments or information received from tribes in regard to the proposed Tumwater Readiness Center will be forwarded to you.

If you have questions about this project, please direct them to Peggy Ulman at peggy.ulman@mil.wa.gov or 253-512-7578.

Sincerely,



Peggy Ulman

Enclosures (2)

1. Cultural Resource Assessment for the Tumwater Readiness Center, Thurston County, WA, October 13, 2015
2. Letter from Jackie Wall, THPO, Nisqually Indian Tribe, October 14, 2015

- **Concurrence from SHPO**



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

October 20, 2015

Ms. Peggy Ulman
36 Quartermaster Road
Washington Military Department
Camp Murray, Washington 98430-0500

Re: Tumwater Readiness Center Project
Log No.: 051315-02-MIL

Dear Ms. Ulman:

Thank you for contacting our department. We have reviewed the professional archaeological survey report you provided for the proposed Tumwater Readiness Center Project, Thurston County, Washington.

We concur with your Determination of No Historic Properties Affected.

We would also request receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribes and this department notified

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with the Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800.4.). Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 890-2615
email: rob.whitlam@dahp.wa.gov

- 3rd Letter to SHPO (Change of Location within the 53-ac site)



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 10, 2016

Rob Whitlam, Ph.D.
State Archaeologist
Department of Archaeology and Historic Preservation
1063 South Capitol Way, Suite 106
Olympia WA 98501

Re: Tumwater Readiness Center
Log No.: 051315-02-MIL

Dear Dr. Whitlam:

This letter is to provide you with an update on the Washington Army National Guard's (WAARNG) Tumwater Readiness Center (TRC) project.

In October 2015, the WAARNG sent you a letter to solicit comments on the professional archaeological survey report for the 53-ac project site and to seek concurrence on our determination of "No Historic Properties Affected". You concurred on our determination through your letter dated October 20, 2015.

As the WAARNG later proceeded with predesign and geotechnical studies, however, it was found that the proposed location of the TRC and FMS facilities (central portion of the site) have soils that are not suitable for construction. Further explorations identified the northern portion of the 53-ac site as having soils that are more suitable for construction, less forested, already developed, and where groundwater issues can be readily mitigated. As such, new predesign and stormwater plans relocate the construction site from the central portion to the northern portion (See attached Fig. 1). Despite this change in construction location within the site, the WAARNG has not changed its original determination of "No Historic Properties Affected". The National Guard Bureau would like the WAARNG to request the WA SHPO again for concurrence on our determination.

In the event that cultural and/or archaeological resources are found or identified during construction activities, the work would stop and individuals involved in the project would follow standard operating procedures for inadvertent archaeological discoveries as outline in the WAARNG ICRMP (2007).

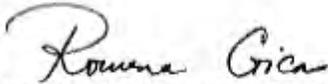
Tumwater RC Updated Consult
November 10, 2016
Page | 2

Any comments related to this project may be sent to:

Washington Military Department
Attn: Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road, Camp Murray, WA 98430
Email: rowena.valencia-gica@mil.wa.gov
Tel.: (253) 512-8704

If we do not receive a response within 30 days, the WAARNG will proceed in implementing the proposed project in accordance with the provisions of 36 CFR 800.3(c)(4), 800.5(c)(1), and 800.5(d). Thank you.

Sincerely,



Rowena Valencia-Gica, Ph.D.
Environmental Specialist

Enclosure: Figure 1. Map of the Proposed Tumwater Readiness Center showing the Original Proposed Central Location and the New Proposed Northern Location Within the 53-ac Site

Tumwater RC Updated Consult
November 10, 2016
Page | 3



Figure 1. Map of the proposed original location and the new proposed location for the construction of the WAARNG's Tumwater Readiness Center within the 53-ac site in Tumwater WA.

-SHPO Concurrence (Change in Location to North Within 53-ac Site)



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

November 14, 2016

Dr. Rowena B. Valencia-Gica
36 Quartermaster Road
Washington Military Department
Camp Murray, Washington 98430-0500

Re: Tumwater Readiness Center Project
Log No.: 051315-02-MIL

Dear Dr. Valencia-Gica:

Thank you for contacting our department. We have reviewed revised materials you provided for the proposed Tumwater Readiness Center Project, Tumwater, Thurston County, Washington.

We concur with your Determination of No Historic Properties Affected.

We would also request receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribes and this department notified

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with the Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800.4. Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 890-2615
email: rob.whitlam@dahp.wa.gov



- 2nd Letter to Tribes



STATE OF WASHINGTON
MILITARY DEPARTMENT

Camp Murray • Tacoma, Washington 98430-5000

October 14, 2015

Richard Bellon, Acting THPO
Chehalis Confederated Tribes
420 Hawanut Road
Oakville, WA 98632-8594

Re: Cultural Resource Assessment for the Tumwater Readiness Center, Thurston County, WA
(previously referred to as the Thurston County Readiness Center)

Dear Mr. Bellon:

A cultural resource assessment has been completed for the proposed site of the Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) in Tumwater, Washington. The WAARNG consulted the SHPO on the project's Area of Potential Effect and received concurrence on May 13, 2015. An introductory letter was also sent to concerned Tribes on March 9, 2015, to provide information about the project and solicit comments or concerns prior to the cultural resource assessment.

In previous correspondence, this project was referred to as the Thurston County Readiness Center. The project's name has been changed to Tumwater Readiness Center; however, the project location and function remain the same. The proposed project site is 53 acres in size and includes six tax parcels; however, the construction footprint will primarily impact 17 acres of the site. The project area is bordered by Interstate 5 on the west, Kimmie Street SW on the east, Frontage Road to the north, and undeveloped land to the south. The proposed undertaking includes construction of a 90,904 square-foot two-story readiness center of permanent masonry-type construction and associated support facilities including a 29,701 square foot vehicle storage building, other storage structures, parking areas, stormwater basins, and utilities. The proposed Tumwater Readiness Center will consolidate the operations of the existing National Guard readiness centers in Olympia and Puyallup. Both the Olympia and Puyallup National Guard facilities will be divested after the new Tumwater Readiness Center is operational.

A copy of the cultural resource assessment, completed in October 2015, is enclosed for your review. As stated in the report, no previously identified archaeological sites are located within the project boundary. The assessment did not identify any cultural or archaeological resources that could potentially be affected by this project.

In accordance with Section 106 of the National Historic Preservation Act, we request your review of this project and the cultural assessment report, and further guidance for the above work

October 14, 2015
Page 2

to proceed. We also request your concurrence with our determination of “**No Historic Properties Affected**” based on the results of this cultural resource study.

In the event that cultural and/or archaeological resources are found or identified during the construction activities, the work would stop and individuals would follow standard operating procedures for inadvertent archaeological discoveries as outlined in the WAARNG Integrated Cultural Resource Management Plan (2013).

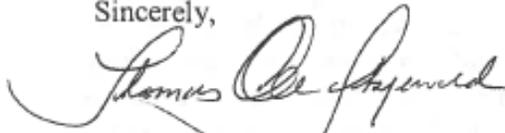
Any comments related to the cultural resource assessment may be sent to:

Washington Military Department
Attn: Peggy Ulman, Environmental Specialist
Building 36 Quartermaster Road
Camp Murray, WA 98430
Email: peggy.ulman@mil.wa.gov
Tel.: (253)512-7578

In order to meet project timelines, we request your response within 30 days of receiving this letter. As noted in 36 CFR 800.3(c)(4), the agency official may proceed to the next step in implementing the proposed project if there is no response within 30 days of receipt of a request for review of a finding or determination. Thank you.

A draft environmental assessment (EA) for the proposed Tumwater Readiness Center is being prepared in accordance with Council on Environmental Quality regulations to comply with the National Environmental Policy Act (NEPA) of 1969. The draft EA is anticipated to be released for public review and comment in mid-November.

Sincerely,



Thomas O. Skjervold
Environmental Program Manager

enclosure: Cultural Resources Assessment for the Tumwater Readiness Center,
Thurston County, WA, October 13, 2015



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

October 14, 2015

Laura Murphy, Archaeologist, Cultural Resources
Muckleshoot Indian Tribe
39015 172nd Avenue SE
Auburn, WA 98092

Re: Cultural Resource Assessment for the Tumwater Readiness Center, Thurston County, WA
(previously referred to as the Thurston County Readiness Center)

Dear Ms. Murphy:

A cultural resource assessment has been completed for the proposed site of the Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) in Tumwater, Washington. The WAARNG consulted the SHPO on the project's Area of Potential Effect and received concurrence on May 13, 2015. An introductory letter was also sent to concerned Tribes on March 9, 2015, to provide information about the project and solicit comments or concerns prior to the cultural resource assessment.

In previous correspondence, this project was referred to as the Thurston County Readiness Center. The project's name has been changed to Tumwater Readiness Center; however, the project location and function remain the same. The proposed project site is 53 acres in size and includes six tax parcels; however, the construction footprint will primarily impact 17 acres of the site. The project area is bordered by Interstate 5 on the west, Kimmie Street SW on the east, Frontage Road to the north, and undeveloped land to the south. The proposed undertaking includes construction of a 90,904 square-foot two-story readiness center of permanent masonry-type construction and associated support facilities including a 29,701 square foot vehicle storage building, other storage structures, parking areas, stormwater basins, and utilities. The proposed Tumwater Readiness Center will consolidate the operations of the existing National Guard readiness centers in Olympia and Puyallup. Both the Olympia and Puyallup National Guard facilities will be divested after the new Tumwater Readiness Center is operational.

A copy of the cultural resource assessment, completed in October 2015, is enclosed for your review. As stated in the report, no previously identified archaeological sites are located within the project boundary. The assessment did not identify any cultural or archaeological resources that could potentially be affected by this project.

In accordance with Section 106 of the National Historic Preservation Act, we request your review of this project and the cultural assessment report, and further guidance for the above work

October 14, 2015

Page 2

to proceed. We also request your concurrence with our determination of "**No Historic Properties Affected**" based on the results of this cultural resource study.

In the event that cultural and/or archaeological resources are found or identified during the construction activities, the work would stop and individuals would follow standard operating procedures for inadvertent archaeological discoveries as outlined in the WAARNG Integrated Cultural Resource Management Plan (2013).

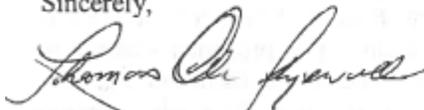
Any comments related to the cultural resource assessment may be sent to:

Washington Military Department
Attn: Peggy Ulman, Environmental Specialist
Building 36 Quartermaster Road
Camp Murray, WA 98430
Email: peggy.ulman@mil.wa.gov
Tel.: (253)512-7578

In order to meet project timelines, we request your response within 30 days of receiving this letter. As noted in 36 CFR 800.3(c)(4), the agency official may proceed to the next step in implementing the proposed project if there is no response within 30 days of receipt of a request for review of a finding or determination. Thank you.

A draft environmental assessment (EA) for the proposed Tumwater Readiness Center is being prepared in accordance with Council on Environmental Quality regulations to comply with the National Environmental Policy Act (NEPA) of 1969. The draft EA is anticipated to be released for public review and comment in mid-November.

Sincerely,



Thomas O. Skjervold
Environmental Program Manager

enclosure: Cultural Resources Assessment for the Tumwater Readiness Center,
Thurston County, WA, October 13, 2015



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

October 14, 2015

Jackie Wall
Annette Bullchild
Tribal Historic Preservation Office
Nisqually Tribe
4820 She-Nah-Num Drive SE
Olympia, WA 98513-9105

Re: Cultural Resource Assessment for the Tumwater Readiness Center, Thurston County, WA
(previously referred to as the Thurston County Readiness Center)

Dear Ms. Wall and Ms. Bullchild:

A cultural resource assessment has been completed for the proposed site of the Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) in Tumwater, Washington. The WAARNG consulted the SHPO on the project's Area of Potential Effect and received concurrence on May 13, 2015. An introductory letter was also sent to concerned Tribes on March 9, 2015, to provide information about the project and solicit comments or concerns prior to the cultural resource assessment.

In previous correspondence, this project was referred to as the Thurston County Readiness Center. The project's name has been changed to Tumwater Readiness Center; however, the project location and function remain the same. The proposed project site is 53 acres in size and includes six tax parcels; however, the construction footprint will primarily impact 17 acres of the site. The project area is bordered by Interstate 5 on the west, Kimmie Street SW on the east, Frontage Road to the north, and undeveloped land to the south. The proposed undertaking includes construction of a 90,904 square-foot two-story readiness center of permanent masonry-type construction and associated support facilities including a 29,701 square foot vehicle storage building, other storage structures, parking areas, stormwater basins, and utilities. The proposed Tumwater Readiness Center will consolidate the operations of the existing National Guard readiness centers in Olympia and Puyallup. Both the Olympia and Puyallup National Guard facilities will be divested after the new Tumwater Readiness Center is operational.

A copy of the cultural resource assessment, completed in October 2015, is enclosed for your review. As stated in the report, no previously identified archaeological sites are located within the project boundary. The assessment did not identify any cultural or archaeological resources that could potentially be affected by this project.

In accordance with Section 106 of the National Historic Preservation Act, we request your review of this project and the cultural assessment report, and further guidance for the above work to proceed. We also request your concurrence with our determination of "**No Historic Properties Affected**" based on the results of this cultural resource study.

In the event that cultural and/or archaeological resources are found or identified during the construction activities, the work would stop and individuals would follow standard operating procedures for inadvertent archaeological discoveries as outlined in the WAARNG Integrated Cultural Resource Management Plan (2013).

Any comments related to the cultural resource assessment may be sent to:

Washington Military Department
Attn: Peggy Ulman, Environmental Specialist
Building 36 Quartermaster Road
Camp Murray, WA 98430
Email: peggy.ulman@mil.wa.gov
Tel.: (253)512-7578

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Sincerely,



Thomas O. Skjervold
Environmental Program Manager

enclosure: Cultural Resources Assessment for the Tumwater Readiness Center,
Thurston County, WA, October 13, 2015



STATE OF WASHINGTON
MILITARY DEPARTMENT

Camp Murray • Tacoma, Washington 98430-5000

October 14, 2015

Brandon Reynon, Cultural Resources
Puyallup Tribe
3009 East Portland Avenue
Tacoma, WA 98404

Re: Cultural Resource Assessment for the Tumwater Readiness Center, Thurston County, WA
(previously referred to as the Thurston County Readiness Center)

Dear Mr. Reynon:

A cultural resource assessment has been completed for the proposed site of the Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) in Tumwater, Washington. The WAARNG consulted the SHPO on the project's Area of Potential Effect and received concurrence on May 13, 2015. An introductory letter was also sent to concerned Tribes on March 9, 2015, to provide information about the project and solicit comments or concerns prior to the cultural resource assessment.

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October 14, 2015
Page 2

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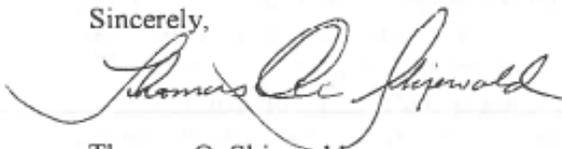
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Washington Military Department
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Building 36 Quartermaster Road
Camp Murray, WA 98430
Email: peggy.ulman@mil.wa.gov
Tel.: (253)512-7578

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Sincerely,



Thomas O. Skjervold
Environmental Program Manager

enclosure: Cultural Resources Assessment for the Tumwater Readiness Center,
Thurston County, WA, October 13, 2015



STATE OF WASHINGTON
MILITARY DEPARTMENT

Camp Murray • Tacoma, Washington 98430-5000

October 14, 2015

Rhonda Foster, THPO
Squaxin Island Tribe
SE 70 Squaxin Lane
Shelton, WA 98584-9200

Re: Cultural Resource Assessment for the Tumwater Readiness Center, Thurston County, WA
(previously referred to as the Thurston County Readiness Center)

Dear Ms. Foster:

A cultural resource assessment has been completed for the proposed site of the Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) in Tumwater, Washington. The WAARNG consulted the SHPO on the project's Area of Potential Effect and received concurrence on May 13, 2015. An introductory letter was also sent to concerned Tribes on March 9, 2015, to provide information about the project and solicit comments or concerns prior to the cultural resource assessment.

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October 14, 2015
Page 2

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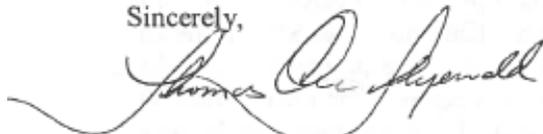
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Thomas O. Skjervold
Environmental Program Manager

enclosure: Cultural Resources Assessment for the Tumwater Readiness Center,
Thurston County, WA, October 13, 2015



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

October 14, 2015

Danny K. Marshall, Chair
Steilacoom Indian Tribe
1515 Lafayette Street
Steilacoom, WA 98388

Re: Cultural Resource Assessment for the Tumwater Readiness Center, Thurston County, WA
(previously referred to as the Thurston County Readiness Center)

Dear Mr. Marshall:

A cultural resource assessment has been completed for the proposed site of the Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) in Tumwater, Washington. The WAARNG consulted the SHPO on the project's Area of Potential Effect and received concurrence on May 13, 2015. An introductory letter was also sent to concerned Tribes on March 9, 2015, to provide information about the project and solicit comments or concerns prior to the cultural resource assessment.

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October 14, 2015
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Thomas O. Skjervold
Environmental Program Manager

enclosure: Cultural Resources Assessment for the Tumwater Readiness Center,
Thurston County, WA, October 13, 2015



STATE OF WASHINGTON
MILITARY DEPARTMENT

Camp Murray • Tacoma, Washington 98430-5000

October 14, 2015

Larry Campbell, THPO
Josephine Peters, Cultural Resource Technician
Theresa Trebon, Records Manager-Tribal Archivist
Swinomish Indian Tribal Community
11430 Moorage Way
LaConner, WA 98257-8707

Re: Cultural Resource Assessment for the Tumwater Readiness Center, Thurston County, WA
(previously referred to as the Thurston County Readiness Center)

Dear Mr. Campbell, Ms. Peters, and Ms. Trebon:

A cultural resource assessment has been completed for the proposed site of the Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) in Tumwater, Washington. The WAARNG consulted the SHPO on the project's Area of Potential Effect and received concurrence on May 13, 2015. An introductory letter was also sent to concerned Tribes on March 9, 2015, to provide information about the project and solicit comments or concerns prior to the cultural resource assessment.

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Camp Murray, WA 98430
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Tel.: (253)512-7578

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Sincerely,



Thomas O. Skjervold
Environmental Program Manager

enclosure: Cultural Resources Assessment for the Tumwater Readiness Center,
Thurston County, WA, October 13, 2015

- **Responses from Tribes on the Archaeological Survey Report and WAARNG's Determination**

1. Nisqually Indian Tribe



Nisqually Indian Tribe
4820 She-Nah-Num Dr. S.E.
Olympia, WA 98513
(360) 456-5221

October 14, 2015

Peggy Ulman
Washington Military Department
Bldg. 36, Quartermaster Road
Camp Murray WA 98430

Dear Ms. Ulman,

The Nisqually Indian Tribe thanks you for the opportunity to comment on:

Re: Tumwater Readiness Center

The Nisqually Indian Tribe has reviewed the report you provided for the above-named project. The Nisqually Indian Tribe has no further information or concerns at this time. Please keep me informed if there are any Inadvertent Discoveries of Archaeological Resources/Human Burials.

Sincerely,

Jackie Wall
THPO
Nisqually Indian Tribe
(360)456-5221 Ext. 2180
wall.jackie@nisqually-nsn.gov

2. Skokomish Tribe

From: Miller, Kris <kmiller@skokomish.org>
Sent: Monday, October 05, 2015 4:03 PM
To: Ulman, Peggy L (MIL)
Subject: Re: Thurston County Readiness Center, Tumwater, WA

Peggy Ulman
Environmental Specialist

You can remove Skokomish from the mailing list for this specific project yes.

Thank you,

Kris Miller

On Mon, Oct 5, 2015 at 9:40 AM, Ulman, Peggy L (MIL) <Peggy.Ulman@mil.wa.gov> wrote:
Kris Miller
Tribal Historic Preservation Officer
Skokomish Tribe

Thank you for your response in regard to the information provided for the proposed construction of a new Washington Army National Guard readiness center in Tumwater, Washington. A cultural resource assessment was completed in September 2015 for the 53-acre property, and the Washington Military Department is preparing to send the report to interested tribes. Since you mentioned that this project falls outside of your usual and accustomed area, would you prefer to have the Skokomish Tribe removed from the mailing list? If you would like to see a copy of the report, please let me know if you would prefer a printed copy, CD, or a PDF via email.

Thank you,

Peggy

Peggy Ulman
Environmental Specialist
Building 36, Quartermaster Road
Washington Military Department
Camp Murray, WA 98430
peggy.ulman@mil.wa.gov

3. Squaxin Island Tribe

From: Stephanie Neil <sneil@squaxin.us>
Sent: Friday, March 20, 2015 2:50 PM
To: Ulman, Peggy L (MIL)
Subject: Thurston County Readiness Center

Peggy,

Thank you for contacting the Squaxin Island Tribe Cultural Resource Department regarding the Thurston County Readiness Center for our review and comment. I am writing to you on behalf of Rhonda Foster, THPO. We have no specific cultural resource concerns to share with you regarding this project. If additional information on the project becomes available, or if any archaeological resources are uncovered, please halt work in the area of discovery and contact us for further consultation.

Thank You,

Stephanie Neil
Archaeologist, Squaxin Island Tribe
360-432-3998

sneil@squaxin.us

From: Stephanie Neil <sneil@squaxin.us>
Sent: Tuesday, November 24, 2015 3:52 PM
To: Ulman, Peggy L (MIL)
Subject: RE: Tumwater Readiness Center

Peggy

I'm sorry for the lateness of this response, we've been busy here the last month.

Thank you for contacting the Squaxin Island Tribe Cultural Resources Department regarding the above listed project for our review and comment and for providing us with a copy of the cultural resource report. I am responding to you on behalf of Rhonda Foster, THPO. We concur that there will be no historic properties affected by the project as proposed. If any archaeological or cultural resources are uncovered during implementation, please halt work in the area of discovery and contact us and DAHP for further consultation.

Thank You,

Stephanie Neil
Archaeologist, Squaxin Island Tribe
360-432-3998
360-972-6631
sneil@squaxin.us

From: Ulman, Peggy L (MIL) [mailto:Peggy.Ulman@mil.wa.gov]
Sent: Wednesday, October 14, 2015 2:41 PM
To: 'rfoster@squaxin.nsn.us'; Stephanie Neil
Subject: Tumwater Readiness Center

Rhonda Foster, THPO
Stephanie Neil, Archaeologist

Attached to this email, you will find a copy of the cultural resource assessment report for the Tumwater Readiness Center in Thurston County. As noted in the attached cover letter, any comments on this project are requested within 30 days of receipt of this email. If you have questions, please let me know.

Peggy Ulman
Environmental Specialist
Building 36, Quartermaster Road
Washington Military Department
Camp Murray, WA 98430
253.512.7578

- **3rd Letter to Tribes (Change of location within the 53-ac site)**



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 10, 2016

Richard Bellon
Acting THPO
Chehalis Confederated Tribes
420 Howanut Road
Oakville, WA 98632-8594

Re: Tumwater Readiness Center (previously referred to as the Thurston County Readiness Center), Tumwater, Thurston County, WA

Dear Mr. Bellon:

This letter is to provide you with an update on the Washington Army National Guard's (WAARNG) Tumwater Readiness Center (TRC) project.

In October 2015, the WAARNG sent to the concerned Tribes a letter to solicit comments on the professional archaeological survey report for the 53-ac project site and to seek concurrence on our determination of "No Historic Properties Affected" based on the results of this cultural resource study. The WAARNG received responses from the Tribes who responded concurring on our determination.

As the WAARNG later proceeded with predesign and geotechnical studies, however, it was found that the proposed location of the TRC and FMS facilities (central portion of the site) have soils that are not suitable for construction. Further explorations identified the northern portion of the 53-ac site as having soils that are more suitable for construction, less forested, already developed, and where groundwater issues can be readily mitigated. As such, new predesign and stormwater plans relocate the construction site from the central portion to the northern portion (See attached Fig. 1). Despite this change in construction location within the site, the WAARNG has not changed its original determination of "No Historic Properties Affected". The National Guard Bureau would like the WAARNG to request the Tribes again for concurrence on our determination.

In the event that cultural and/or archaeological resources are found or identified during construction activities, the work would stop and individuals involved in the project would follow standard operating procedures for inadvertent archaeological discoveries as outline in the WAARNG ICRMP (2007).

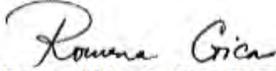
Tumwater RC Updated Consult
November 10, 2016
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Any comments related to this project may be sent to:

Washington Military Department
Attn: Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road, Camp Murray, WA 98430
Email: rowena.valencia-gica@mil.wa.gov
Tel.: (253) 512-8704

If we do not receive a response within 30 days, the WAARNG will proceed in implementing the proposed project in accordance with the provisions of 36 CFR 800.3(c)(4), 800.5(c)(1), and 800.5(d). Thank you.

Sincerely,


Rowena Valencia-Gica, Ph.D.
Environmental Specialist

Enclosure: Figure 1. Map of the Proposed Tumwater Readiness Center showing the Original Proposed Central Location and the New Proposed Northern Location Within the 53-ac Site

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Figure 1. Map of the proposed original location and the new proposed location for the construction of the WAARNG's Tumwater Readiness Center within the 53-ac site in Tumwater WA.



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 10, 2016

Laura Murphy
Archaeologist, Cultural Resources
Muckleshoot Indian Tribe
39015 172nd Avenue SE
Auburn, WA 98092

Re: Tumwater Readiness Center (previously referred to as the Thurston County Readiness Center), Tumwater, Thurston County, WA

Dear Ms. Murphy:

This letter is to provide you with an update on the Washington Army National Guard's (WAARNG) Tumwater Readiness Center (TRC) project.

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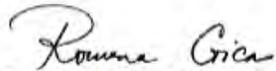
Tumwater RC Updated Consult
November 10, 2016
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Sincerely,



Rowena Valencia-Gica, Ph.D.
Environmental Specialist

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Tumwater RC Updated Consult
November 10, 2016
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Figure 1. Map of the proposed original location and the new proposed location for the construction of the WAARNG's Tumwater Readiness Center within the 53-ac site in Tumwater WA.



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 10, 2016

Jackie Wall
Annette Bullchild
Tribal Historic Preservation Office
Nisqually Tribe
4820 She-Nah-Hum Drive SE
Olympia, WA 98513-9105

Re: Tumwater Readiness Center (previously referred to as the Thurston County Readiness Center), Tumwater, Thurston County, WA

Dear Ms. Wall/Ms. Bullchild:

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In the event that cultural and/or archaeological resources are found or identified during construction activities, the work would stop and individuals involved in the project would follow standard operating procedures for inadvertent archaeological discoveries as outline in the WAARNG ICRMP (2007).

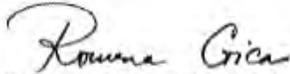
Tumwater RC Updated Consult
November 10, 2016
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Any comments related to this project may be sent to:

Washington Military Department
Attn: Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road, Camp Murray, WA 98430
Email: rowena.valencia-gica@mil.wa.gov
Tel.: (253) 512-8704

If we do not receive a response within 30 days, the WAARNG will proceed in implementing the proposed project in accordance with the provisions of 36 CFR 800.3(c)(4), 800.5(c)(1), and 800.5(d). Thank you.

Sincerely,


Rowena Valencia-Gica, Ph.D.
Environmental Specialist

Enclosure: Figure 1. Map of the Proposed Tumwater Readiness Center showing the Original Proposed Central Location and the New Proposed Northern Location Within the 53-ac Site

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Figure 1. Map of the proposed original location and the new proposed location for the construction of the WAARNG's Tumwater Readiness Center within the 53-ac site in Tunwater WA.



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 10, 2016

Brandon Reynon
Cultural Resources
Puyallup Tribe
3009 East Portland Avenue
Tacoma, WA 98404

Re: Tumwater Readiness Center (previously referred to as the Thurston County Readiness Center), Tumwater, Thurston County, WA

Dear Mr. Reynon:

This letter is to provide you with an update on the Washington Army National Guard's (WAARNG) Tumwater Readiness Center (TRC) project.

In October 2015, the WAARNG sent to the concerned Tribes a letter to solicit comments on the professional archaeological survey report for the 53-ac project site and to seek concurrence on our determination of "No Historic Properties Affected" based on the results of this cultural resource study. The WAARNG received responses from the Tribes who responded concurring on our determination.

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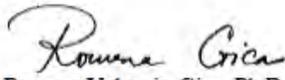
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Sincerely,



Rowena Valencia-Gica, Ph.D.
Environmental Specialist

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STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 10, 2016

Rhonda Foster
Tribal Historic Preservation Office
Squaxin Island Tribe
SE 70 Squaxin Lane
Shelton, WA 98584-9200

Re: Tumwater Readiness Center (previously referred to as the Thurston County Readiness Center), Tumwater, Thurston County, WA

Dear Ms. Foster:

This letter is to provide you with an update on the Washington Army National Guard's (WAARNG) Tumwater Readiness Center (TRC) project.

In October 2015, the WAARNG sent to the concerned Tribes a letter to solicit comments on the professional archaeological survey report for the 53-ac project site and to seek concurrence on our determination of "No Historic Properties Affected" based on the results of this cultural resource study. The WAARNG received responses from the Tribes who responded concurring on our determination.

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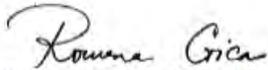
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November 10, 2016
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Washington Military Department
Attn: Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road, Camp Murray, WA 98430
Email: rowena.valencia-gica@mil.wa.gov
Tel.: (253) 512-8704

If we do not receive a response within 30 days, the WAARNG will proceed in implementing the proposed project in accordance with the provisions of 36 CFR 800.3(c)(4), 800.5(c)(1), and 800.5(d). Thank you.

Sincerely,


Rowena Valencia-Gica, Ph.D.
Environmental Specialist

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STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 10, 2016

Danny K. Marshall
Chair
Steilacoom Indian Tribe
1515 Lafayette Street
Steilacoom, WA 98388

Re: Tumwater Readiness Center (previously referred to as the Thurston County Readiness Center), Tumwater, Thurston County, WA

Dear Mr. Marshall:

This letter is to provide you with an update on the Washington Army National Guard's (WAARNG) Tumwater Readiness Center (TRC) project.

In October 2015, the WAARNG sent to the concerned Tribes a letter to solicit comments on the professional archaeological survey report for the 53-ac project site and to seek concurrence on our determination of "No Historic Properties Affected" based on the results of this cultural resource study. The WAARNG received responses from the Tribes who responded concurring on our determination.

As the WAARNG later proceeded with predesign and geotechnical studies, however, it was found that the proposed location of the TRC and FMS facilities (central portion of the site) have soils that are not suitable for construction. Further explorations identified the northern portion of the 53-ac site as having soils that are more suitable for construction, less forested, already developed, and where groundwater issues can be readily mitigated. As such, new predesign and stormwater plans relocate the construction site from the central portion to the northern portion (See attached Fig. 1). Despite this change in construction location within the site, the WAARNG has not changed its original determination of "No Historic Properties Affected". The National Guard Bureau would like the WAARNG to request the Tribes again for concurrence on our determination.

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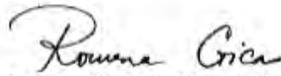
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Sincerely,



Rowena Valencia-Gica, Ph.D.
Environmental Specialist

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STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 10, 2016

Larry Campbell, Tribal Historic Preservation Office
Josephine Peters, Cultural Resource Technician
Swinomish Indian Tribal Community
11430 Moorage Way
LaConner, WA 98257-8707

Re: Tumwater Readiness Center (previously referred to as the Thurston County Readiness Center), Tumwater, Thurston County, WA

Dear Mr. Campbell/Ms. Peters:

This letter is to provide you with an update on the Washington Army National Guard's (WAARNG) Tumwater Readiness Center (TRC) project.

In October 2015, the WAARNG sent to the concerned Tribes a letter to solicit comments on the professional archaeological survey report for the 53-ac project site and to seek concurrence on our determination of "No Historic Properties Affected" based on the results of this cultural resource study. The WAARNG received responses from the Tribes who responded concurring on our determination.

As the WAARNG later proceeded with predesign and geotechnical studies, however, it was found that the proposed location of the TRC and FMS facilities (central portion of the site) have soils that are not suitable for construction. Further explorations identified the northern portion of the 53-ac site as having soils that are more suitable for construction, less forested, already developed, and where groundwater issues can be readily mitigated. As such, new predesign and stormwater plans relocate the construction site from the central portion to the northern portion (See attached Fig. 1). Despite this change in construction location within the site, the WAARNG has not changed its original determination of "No Historic Properties Affected". The National Guard Bureau would like the WAARNG to request the Tribes again for concurrence on our determination.

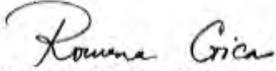
In the event that cultural and/or archaeological resources are found or identified during construction activities, the work would stop and individuals involved in the project would follow standard operating procedures for inadvertent archaeological discoveries as outline in the WAARNG ICRMP (2007).

Any comments related to this project may be sent to:

Washington Military Department
Attn: Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road, Camp Murray, WA 98430
Email: rowena.valencia-gica@mil.wa.gov
Tel.: (253) 512-8704

If we do not receive a response within 30 days, the WAARNG will proceed in implementing the proposed project in accordance with the provisions of 36 CFR 800.3(c)(4), 800.5(c)(1), and 800.5(d). Thank you.

Sincerely,


Rowena Valencia-Gica, Ph.D.
Environmental Specialist

Enclosure: Figure 1. Map of the Proposed Tumwater Readiness Center showing the Original Proposed Central Location and the New Proposed Northern Location Within the 53-ac Site



Figure 1. Map of the proposed original location and the new proposed location for the construction of the WAARNG's Tumwater Readiness Center within the 53-ac site in Tumwater WA.

- **Response from Tribes Re: Change in Location of Construction**



Nisqually Indian Tribe
4820 She-Nah-Num Dr. S.E.
Olympia, WA 98513
(360) 456-5221

November 15, 2016

Rowena Valencia-Gica
Environmental Programs
36 Quartermaster Rd.
Camp Murray, WA 98430

Dear Ms. Valencia-Gica.

The Nisqually Indian Tribe thanks you for the opportunity to comment on:

Re: Tumwater Readiness Center

The Nisqually Indian Tribe has reviewed the letter you provided for the above-named project. The Nisqually Indian Tribe concurs with the determination of "No Historic Properties Affected". Please notify me if there are any Inadvertent Discoveries.

Sincerely,

Jackie Wall
THPO
Nisqually Indian Tribe
(360)456-5221 Ext. 2180
wall.jackie@nisqually-nsn.gov

B. ESA Section 7 Consult

- MFR



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

MEMORANDUM FOR RECORD

November 30, 2015

TO: Jay Rubinoff
Natural Resources PM
ARNG-ILE-T

FROM: Rowena Valencia-Gica, Ph.D.
Natural and Cultural Resources PM
Environmental Programs
WAARNG/WMD

SUBJECT: Section 7 ESA and Other Agencies Consultation for the Construction and Operation of a Washington Army National Guard (WAARNG) Tumwater Readiness Center (TRC) Facility in Tumwater, Thurston County, Washington

The WMD/WAARNG through the Environmental Program Section conducted its agency consultations for the proposed Tumwater Readiness Center (TRC) project as part of the preparation of the Drafts TRC Environmental Assessment (EA) and Finding of No Significant Impact (FNSI) to ensure that their concerns/suggestions are considered prior to document finalization and project implementation.

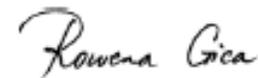
First informal agency (USFWS) consultation was done on January 11, 2013. An e-mail was sent to Ms. Joanne Stellini to inquire about the consult process regarding WMD's land acquisition project in Thurston County. The second contact with USFWS was made on April 27, 2015 (after the WMD acquired a property at Kimmie St. SW in Tumwater, Thurston County, WA) to request for a meeting to discuss the proposed TRC project and potential impacts to threatened and endangered species. A meeting attended by WMD/WAARNG environmental staff (Ms. Rowena Valencia-Gica and Ms. Peggy Ulman), Ms. Theresa Dusek (the contractor for natural resources, wetlands and pocket gopher rapid assessment studies) and USFWS (Mr. Tim Romanski and Ms. Joanne Stellini) was held on July 2, 2015. During this meeting the TRC project was discussed and the USFWS requested for the preparation of a Biological Assessment (BA) for this project and a team of USFWS/WDFW/county/city biologist's project site visit. On July 14, 2015, a team of biologists visited the site and applied the current screening protocols for the Mazama (Olympia subspecies) Pocket Gopher (MPG), a state and federally listed species that may be present or has critical habitat on the site. Two determinations were made during the site visit: 1) It is unlikely that any portion of the site is currently occupied by MPG; and, 2) No further screenings are recommended at this time (during 2015). These determinations are valid until October 31, 2016.

The WAARNG prepared a Biological Evaluation (BE) and on October 5, 2015, requested for a BE review and concurrence from USFWS on the determination of "Not Likely to Adversely Affect" the Olympia Pocket Gopher. The WAARNG received an e-mail about USFWS providing technical assistance to the WAARNG with a letter attached on October 6, 2016 (Ref. 01EWF00-2015-TA-1007) stating the above determinations and validity date. A copy of this letter was sent via e-mail to NGB Natural Resources Project Manager on October 7, 2015.

The BE was also sent to NOAA-NMFS on October 1, 2015. A phone response was received on October 2, 2015 indicating that the NOAA-NMFS has no comment on the BE because there is no federally listed species of concern to the agency that the project may affect.

A response from the USFWS regarding their review of the BE has not yet been received as of the date this MFR.

Point of contact for this memo is the undersigned, (253) 512-8704, Rowena.valencia-gica@mil.wa.gov.



Rowena Valencia-Gica, Ph.D.

- **Technical Assistance Letter from USFWS**



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503



OCT - 6 2015

In Reply Refer To:
01EWF00-2015-TA-1007

Thomas O. Skjervold
Environmental Program Manager
Washington Military Department
36 Quartermaster Road
Camp Murray, Washington 98430

Dear Mr. Skjervold,

Subject: Endangered Species Act Section 7 Consultation for the Tumwater Readiness Center

Our offices have been in discussion regarding the Washington Military Department's (Department) Tumwater Readiness Center, a new facility proposed for development on a 53-acre site located in the City of Tumwater, Thurston County, Washington. It is our understanding that the Department will receive funding and/or approvals from the National Guard Bureau, thereby creating a nexus requiring consultation with the U.S. Fish and Wildlife Service (Service) under section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(ESA).

The Department's proposal would develop 12 to 17 acres of the 53-acre site (possibly in phases), which includes Thurston County Parcel No.s 09520003000, 51850001200, and 51850000400. The proposal includes an approximately 90,000 square-foot (ft) readiness center, 30,000 square-foot vehicle storage building, 17,000 square-foot field maintenance shop, associated smaller buildings and facilities (approximately 10,000 square-ft), parking areas (approximately 18,000 square-ft), and related improvements (e.g., utilities, stormwater facilities).

Thomas O. Skjervold

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The Service has reviewed available information regarding the site and proposal. The site is located within the range of the Olympia pocket gopher (*Thomomys mazama pugetensis*; threatened), and lies in close proximity to sites that are known to be currently occupied. The site's soils include Cagey loamy sand, Norma silt loam, and Everett very gravelly sandy loam, all of which are considered by the Service and Thurston County to be Mazama pocket gopher (MPG) indicator soils (medium- and low-preference soils). The site has a mixed history of prior use and development, encompasses areas of compacted fill and gravel, and areas with wetlands and/or high groundwater. Most of the site currently supports second-growth coniferous and deciduous trees, woody shrubs, and nonnative weeds and grasses.

On July 14, 2015, staff from our office and from the Washington State Department of Fish and Wildlife visited the site and applied our current screening protocols for the MPG. On-site conditions matched the descriptions offered here. Unfortunately, those conditions make it difficult to effectively implement the current MPG screening protocols. However, two determinations were made: 1) It is unlikely that any portion of the site is currently occupied by MPG; and, 2) No further screenings are recommended at this time (during 2015). Under the current MPG screening protocols, these determinations would remain valid until October 31, 2016.

The Service has an interest in continuing our office's engagement and discussion regarding this proposed action. The proposal would develop and functionally convert habitat that has inherent value to the MPG in its current condition. The site contains suitable MPG soils and is located within the Reserve Priority Area identified by the Service for long-term conservation and recovery of the Olympia pocket gopher. Across the range of the four listed subspecies in Thurston and Pierce Counties, suitable MPG soils are a finite resource requiring protection and conservation.

If approved, it is our understanding that the Department will develop the proposed Tumwater Readiness Center on a 2- to 5-year timeline. Given the setting and proximity to known occupied sites, past experience suggests to us there is some potential that the site, or a portion thereof, could become occupied by MPG during or after construction. With that possibility in mind, the Service cannot provide assurances to the Department today that development of the site will not result in prohibited take under the ESA.

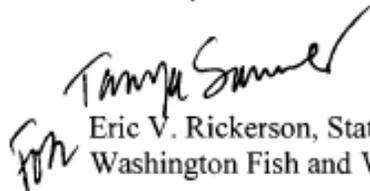
Therefore, we suggest and recommend that the Department should request informal Section 7 consultation with the Service. The Department should prepare a Biological Assessment, and request consultation with the Service to address potential effects to the MPG and their habitat, before additional federal funds are authorized or approvals issued. And, because current conditions make it difficult to effectively implement the screening protocols for MPG, we hope that the Department will coordinate project delivery with the Service (i.e., site preparation and future development) so that additional screenings can be performed, as deemed necessary, to avoid and minimize potential impacts to MPG.

Thomas O. Skjervold

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The Service relies upon and greatly appreciates the efforts of our federal partners (and non-federal designees) to help protect and recover species that are listed under the ESA. We look forward to continuing our office's engagement and discussion regarding this proposed action. Our staff are available to assist with preparation of a Biological Assessment, and to answer related questions you may have. Please call or write Ryan McReynolds (360-753-6047; ryan_mcreynolds@fws.gov) or Martha Jensen (360-753-9000; martha_l_jensen@fws.gov) if you require assistance or would like to meet and discuss this proposal.

Sincerely,


Eric V. Rickerson, State Supervisor
Washington Fish and Wildlife Office

- **Request for BE review and Concurrence on Determination**



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

October 5, 2015

Martha Jensen
Branch Manager
Washington Fish and Wildlife Office
510 Desmond Drive SE
Lacey WA 98503

Re: Request for Concurrence and Review of the Biological Evaluation for the WAARNG
Tumwater Readiness Center in Tumwater, Thurston County, WA

Dear Ms. Jensen,

This is to request for concurrence from the U.S. Fish and Wildlife Service that the proposed construction and operation of a Tumwater Readiness Center (TRC) facility in Tumwater, Thurston County, WA is *not likely to adversely affect* the Olympia pocket gopher and their habitat.

The proposed project involves the construction of a Washington Army National Guard (WAARNG) Readiness Center consisting of an approximately 90,000 square feet (SF) Readiness Center, plus support structures: a 29,701 SF unheated vehicle storage building, a 200 SF flammable materials building, a 300 SF controlled waste storage facility, and about 18,000 square yards of parking area – all to support the training, administrative and logistical requirements of the WAARNG. This facility will cover approximately 12 acres (ac) in the central portion of a 35-ac parcel, itself located within the boundaries of 53-ac property acquired by WMD in April 2015. A Field Maintenance Shop (FMS) is also proposed to be built within the 53-ac site subject to funding in a future funding cycle. The FMS building envisioned would be about 17,000 SF and attendant facilities (~1,800 SF) include hazardous materials storage, flammable materials storage, controlled waste facility, unheated storage and paved parking.

In March 2015, the WAARNG obtained a list of threatened and endangered species, and species proposed for listing, that potentially occur, or for which critical habitat occurs, fully or partially within the project area. Ten species were included in the list, but only Mazama pocket gopher (specifically the Olympia subspecies) may potentially be affected due to the loss of soils that are potentially suitable habitat for this species. The WAARNG prepared a Biological Evaluation (BE) in response to the U.S. Fish and Wildlife Service (USFWS)-Washington Office's requirement to prepare this document and request informal Section 7 ESA consultation with the Service, to address potential effects of the proposed TRC project to the Olympia pocket gopher and their habitat.

Request for Concurrence on BE for TRC

Page 2

October 5, 2015

The proposed project site at Kimmie St. SW has soils (Cagey loamy sand and Everett very gravelly sandy loam) that are suitable habitat for *Mazama* (Olympia sub-species) pocket gophers. AHBL's recent assessment of the use of the area by *Mazama* pocket gophers indicates that the project site is not currently used by any of the three listed *Mazama* pocket gopher sub-species due to the dense vegetative community that is present there. The project site also falls outside the designated critical habitat for this species. The nearest designated critical habitat though is located only about a mile away, therefore, there is a potential for pocket gophers to move to or utilize the site at some point particularly if the site would be cleared of vegetation. The TRC construction would also lead to permanent loss of soils as available gopher habitat. The USFWS biologist conducted a site visit on July 13, 2015 and no feedback from USFWS was received, which according to them indicates that there is no listed species found in the project site.

For these reasons, the WAARNG concluded that the proposed TRC project is *not likely to adversely affect* the *Mazama* (Olympia subspecies) pocket gophers. In this regard, the WAARNG requests for your review of the attached BE and your concurrence with our determination.

Should you have any questions, comments, or clarifications about the BE or the project, please do not hesitate to contact the undersigned, Tel. (253) 512-8704, Fax (253) 512-8904, or e-mail at Rowena.valencia-gica@mil.wa.gov.

Sincerely,



Rowena Valencia-Gica, Ph.D.
Environmental Specialist

- **Follow-up Request for Review and Concurrence to USFWS**



STATE OF WASHINGTON
MILITARY DEPARTMENT

Camp Murray • Tacoma, Washington 98430-5000

March 4, 2016

Martha Jensen
Branch Manager
Washington Fish and Wildlife Office
510 Desmond Drive SE
Lacey WA 98503

Re: Follow-up Request for Concurrence and Review of the Biological Evaluation for the
WAARNG Tumwater Readiness Center in Tumwater, Thurston County, WA

Dear Ms. Jensen,

This letter is to follow-up on the status of our request for concurrence from the U.S. Fish and Wildlife Service that the proposed construction and operation of a WAARNG Tumwater Readiness Center (TRC) facility in Tumwater, Thurston County, WA is *not likely to adversely affect* the Olympia pocket gopher and their habitat.

In our letter to your agency dated October 5, 2015, we presented a summary of the proposed project and description of the project site. Also, we submitted a Biological Evaluation (BE) in response to your requirement to prepare this document and request informal Section 7 ESA consultation with the Service. The WAARNG concluded based on that BE that the proposed TRC project is *not likely to adversely affect* the Mazama (Olympia subspecies) pocket gophers.

As discussed previously with your staff, the WAARNG has also been preparing an Environmental Assessment (EA) for this proposed action that we anticipate to get out for public comment this month. The National Guard Bureau has finished reviewing the document and would like to see a USFWS letter stating your determination included in the EA. In this regard, the WAARNG requests for your review of the BE and your concurrence with our determination.

We always greatly appreciate your assistance. Should you have any questions, comments, or clarifications about the BE or the project, please do not hesitate to contact the undersigned, Tel. (253) 512-8704, Fax (253) 512-8904, or e-mail at Rowena.valencia-gica@mil.wa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Rowena Gica".

Rowena Valencia-Gica, Ph.D.
Environmental Specialist

- **Response from USFWS on BE & Concurrence, March 25, 2016**



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503



MAR 25 2016

In Reply Refer To:
01EWF00-2015-1-1007

Thomas O. Skjervold
Washington Military Department
Attn: R. Valencia-Gica
36 Quartermaster Road
Camp Murray, Washington 98430

Dear Mr. Skjervold:

This letter is in response to your request for consultation on the proposed Tumwater Readiness Center located in the City of Tumwater, Thurston County, Washington, and its potential effects to the Olympia pocket gopher (*Thomomys mazama pugetensis*). The State of Washington Military Department – Washington Army National Guard (WAARNG) submitted a Biological Evaluation (BE), dated October 5, 2015. Your BE and request to consult were received in our office on October 5, 2015. It is our understanding that the proposed action will receive funding and/or approvals from the National Guard Bureau and WAARNG has requested informal consultation on behalf of the National Guard Bureau. WAARNG provided information in support of a “may affect, not likely to adversely affect” determination for the Olympia pocket gopher. This informal consultation has been conducted in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(ESA).

WAARNG made “no effect” determinations for additional species and critical habitat that are known to occur in Thurston County, including designated critical habitat for the Olympia pocket gopher. Your determinations that the action will have no effect on these listed species and critical habitat rest with the federal action agency. The U.S. Fish and Wildlife Service (Service) has no regulatory or statutory authority for concurring with “no effect” determinations, and no consultation with the Service is required. We recommend that the federal action agency document their analyses, and maintain that documentation as part of their files.

Thomas O. Skjervold

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WAARNG proposes to construct and operate a facility or installation supporting logistical, training, and administrative functions for National Guard units that currently use existing, deteriorated and functionally deficient facilities located at the Puyallup and Olympia Armories. The proposal would develop 12 to 17 acres of a 53-acre site, which includes Thurston County Parcel No.s 09520003000, 51850001200, and 51850000400. The proposal includes constructing (possibly in phases) an approximately 90,000 square-foot (ft²) readiness center, 30,000 ft² vehicle storage building, 17,000 ft² field maintenance shop, associated smaller buildings and facilities (approximately 10,000 ft²), parking areas (approximately 18,000 ft²), and related improvements (e.g., utilities, stormwater facilities). Contingent upon the availability of funding, WAARNG also hopes to construct and operate a hazardous/flammable material storage area(s) and controlled waste facility. Other site improvements may include perimeter/security fencing, road/street and sidewalk improvements (including lighting and signals), and a park-and-ride facility.

WAARNG has indicated that National Guard units training at the facility will mostly use military vehicle storage, fueling, cleaning, and servicing facilities and “bays,” but will also stage and train with field equipment, and conduct field training activities or drills on-foot. WAARNG has indicated that the facility will host and support training for larger units (up to 300 personnel) on a regular basis (approximately one weekend per month). The proposed Tumwater Readiness Center will also serve as an emergency response center and shelter for the surrounding communities. WAARNG expects to operate the facility for a minimum of 50 years.

WAARNG has included conservation measures which will serve to minimize potential impacts during construction and operation of the proposed facility. These include avoidance of wetlands and wetland buffers located on the 53-acre site; material source control and spill prevention, control, and containment best management practices (BMPs); and, adherence to pesticide/herbicide application label requirements, regulations, and BMPs. WAARNG has indicated that they will prepare, and provide to units, maps and other information identifying sensitive resources on the installation.

WAARNG has indicated that the proposed Tumwater Readiness Center may encourage land use conversion, development, or redevelopment in the immediate surrounding area. However, there are no known, pending or future development or redevelopment proposals that are contingent or dependent upon the current, proposed action.

Sufficient information has been provided to determine the effects of the action to federally listed species, and to conclude whether the action is likely to adversely affect those species. Our concurrence is based on information included in the BE, complete and successful implementation of the conservation measures described in the BE, and the following rationale.

Olympia Pocket Gopher

Status: The Olympia pocket gopher is one of four Mazama pocket gopher (MPG) subspecies that occur in Thurston and Pierce Counties, Washington. On April 9, 2014, the Service published a final rule listing all four of these subspecies as threatened throughout their ranges (79 FR 19760; April 9, 2014). MPGs are small fossorial rodents from the family Geomyidae (“true

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gophers”). MPG are regional endemics found only in western Washington, western Oregon, and northern California. A larger, related species, the northern pocket gopher (*T. talpoides*) is found in eastern Washington.

Life History and Habitat Requirements: In Washington, specifically the south Puget Sound, MPGs live in open meadows, prairies, and grassland habitats of the glacial outwash plain, where there are porous, well-drained soils. They do not require high quality prairie, but instead can live on a wide range of sites, provided that the vegetative cover is mostly open (no trees, with little or no woody shrub cover), and especially where soils support the perennial forbs that MPGs prefer. The largest known extant population of the Olympia pocket gopher is located on and around the Olympia Regional Airport, approximately 1 mile east of the proposed Tumwater Readiness Center.

MPGs are generalist herbivores and their diet includes a wide variety of plant material, including leafy vegetation, succulent roots, shoots, and tubers. Each individual maintains and occupies its own burrow system, and aside from the breeding season, males and females remain segregated in their own burrows and tunnel systems for much of the year. Burrows consist of a series of main runways, chambers, and lateral tunnels leading to the surface of the ground. Most foraging takes place below ground. MPGs have limited dispersal capabilities and rarely spend time on the surface or venture far from tunnel entrances.

MPG distribution is affected by the rock content of soils, drainage, cover type, forage availability, and climate. Suitable prairie and meadow habitats have a naturally patchy distribution. Across their preferred habitats, there is an even patchier distribution of soil rockiness, which may further restrict the areas that MPGs can utilize. More than a dozen suitable soil types and series are known to support MPG populations in Thurston and Pierce Counties. In Thurston County, “high” and “medium” preference MPG soils include: Nisqually loamy fine sand, 0 to 3 or 3 to 15 percent slopes; Spanaway-Nisqually complex, 2 to 10 percent slopes; Cagey loamy sand; Indianola loamy sand, 0 to 3 percent slopes; and, Spanaway gravelly sandy loam, 0 to 3 or 3 to 15 percent slopes. “Low” preference MPG soils include Everett very gravelly sandy loam and Norma silt loam.

Much of the suitable habitat that historically occurred across the ranges of the four listed MPG subspecies has been degraded by curtailment of natural disturbance regimes (i.e., lack of wildfire leading to tree and woody shrub encroachment), lost to development, or converted to incompatible land uses. However, populations do persist today on partially-developed sites, including road right-of-ways, on municipal properties, tree farms, and in agricultural settings. Poor habitat connectivity across the landscape isolates many of these populations.

MPG habitat, especially suitable soils and vegetation, is vulnerable to damage. Even temporary disturbance resulting from equipment access, staging, excavation, earth moving, grading, and filling can damage surface and subsurface soil properties, profiles, and structure (e.g., soil compaction). On some sites, this damage may persist for years, or indefinitely. Damage to MPG burrows and tunnel systems, and damage or removal of vegetation (forage resources), imposes

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an energetic burden on individuals. When operated on occupied habitat, heavy equipment poses a risk of collapsing MPG burrows and tunnel systems, and may physically injure or kill individuals.

Effects of the Action: The 53-acre site where WAARNG proposes to construct and operate the Tumwater Readiness Center is located within the range of the Olympia pocket gopher, and lies in close proximity to sites that are known to be currently occupied. The site's soils include Cagey loamy sand, Norma silt loam, and Everett very gravelly sandy loam, all of which are considered medium- and low-preference MPG soils by the Service and Thurston County. The site has a mixed history of prior use and development, encompasses areas of compacted fill and gravel, and areas with wetlands and/or high groundwater. Most of the site has converted to unsuitable cover types and is dominated today by second-growth coniferous and deciduous trees, woody shrubs, and nonnative weeds and grasses.

On July 14, 2015, staff from the Service's Washington Fish and Wildlife Office (Lacey, Washington) and from the Washington State Department of Fish and Wildlife visited the site and applied our current screening protocols for the MPG. Unfortunately, conditions on the site made it difficult to effectively implement the current MPG screening protocols. However, two determinations were made: 1) It is unlikely that any portion of the site is currently occupied by MPG; and, 2) No further screenings are recommended at this time (during 2015). Under the current MPG screening protocols, these determinations remain valid until at least October 31, 2016.

Construction of the proposed Tumwater Readiness Center will have unavoidable impacts to vegetation and soils across 12 to 17 acres of the 53-acre site. The proposed action will develop and functionally convert habitat that may have inherent value to the Olympia pocket gopher. The site contains suitable soils and is located within the Reserve Priority Area identified by the Service for long-term conservation and recovery of the Olympia pocket gopher. Across the known range of the Olympia pocket gopher, suitable soils are considered a finite resource requiring protection and conservation. However, the best available scientific information suggests that the 53-acre site is not currently occupied by the Olympia pocket gopher, and may never have been occupied in the past (i.e., substantial portions appear to have always supported forested cover types).

Based on physical, environmental, and biological conditions on and near the site, the Service has determined that construction of the proposed Tumwater Readiness Center will not result in take (50 CFR17.3) of the Olympia pocket gopher. The footprint where temporary and permanent impacts would occur currently provides fragmented and degraded MPG habitat, and the surveys and screenings completed during 2015 and in previous years have consistently failed to document signs of MPG use or occupancy. The Service has determined it is extremely unlikely that individuals will be exposed to construction activities or resulting effects. Construction exposures and effects to the Olympia pocket gopher are therefore considered discountable.

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The Service understands that WAARNG proposes to develop the 53-acre site, and construct the proposed facilities and site improvements, on a 2- to 5-year timeline. Given the setting and proximity to known occupied sites, past experience suggests there is some potential that the site, or a portion thereof, could become occupied by Olympia pocket gophers either during or after construction. With that possibility in mind, **the Service cannot provide assurances to WAARNG today that all future development and operations at the site will not result in prohibited take under the ESA (50 CFR 17.3).** Accordingly, **this letter of concurrence includes our related conservation recommendations.**

WAARNG's proposed 50 years of operations at the Tumwater Readiness Center will include staging and training with field equipment, field training activities or drills conducted on-foot, and routine facilities management and maintenance (e.g., mowing and vegetation management). These activities may and likely will measurably affect vegetation and soil conditions. We expect that mowing and vegetation management, including careful application of pesticides/herbicides, will maintain the low-statured, early seral vegetation that MPG require, and may thereby provide potential indirect and long-term benefits to the Olympia pocket gopher.

WAARNG has provided few details to describe the field training activities and drills they propose to conduct at the Tumwater Readiness Center. MPG habitat, especially suitable soils and vegetation, is vulnerable to damage. Damage imposes an energetic burden on individuals. Heavy equipment can compact soils, collapse burrows and tunnel systems, and may physically injure or kill individuals.

The Service assumes that field training and drills involving heavy equipment will be confined to developed portions of the facility and installation. If, at a later date, WAARNG knows or suspects that any portion of the 53-acre site has become occupied by Olympia pocket gophers, that would be a normal trigger or condition for reinitiation of ESA consultation on this proposed action.

There are no identifiable, pending or future development or redevelopment proposals that are contingent or dependent upon the current, proposed action. **The Service concludes that indirect effects to the pattern or rate of land use conversion are not reasonably certain to occur.**

The Service has determined that the direct and indirect effects of the proposed action will not degrade or destroy suitable, occupied Olympia pocket gopher habitat. Furthermore, existing conditions on and adjacent to the 53-acre site (i.e., large, contiguous stands of forest across southern portions of the site; a developed Interstate-5 roadway corridor running north-to-south the entire length of the site) suggest that the proposed action will not further impair habitat connectivity or the potential for dispersal. The proposed action will not prevent, or lessen the likelihood, that MPG individuals may continue to persist on adjacent parcels. **Foreseeable direct and indirect effects to the Olympia pocket gopher will not be measurable, or will be beneficial, and are therefore considered insignificant.**

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Conservation Recommendations

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are not required, but are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, develop information, and/or aid in recovery.

1) Conditions across the 53-acre site make it difficult to effectively implement the current screening protocols for MPG. **We recommend to WAARNG that additional, follow-up screenings for indications of MPG occupancy are both warranted and advisable.** We recommend that follow-up screenings for indications of MPG occupancy should be conducted **over the course of phased implementation and project delivery.** The Service is available to assist with those screenings. That would require that WAARNG provide reasonable access to the 53-acre site during the MPG screening season (June 1 through October 31). We request that WAARNG coordinate project delivery with the Service, so that additional screenings can be performed, as deemed necessary by both parties, leading up to and/or concurrent with site preparation for construction. **We recommend that the next, follow-up screenings for indications of MPG occupancy be conducted during the 2017 field season.**

2) If any portion of the 53-acre site becomes occupied by Olympia pocket gophers in the future, that would trigger reinitiation of ESA consultation on this action. That changed condition would also necessitate further discussion between WAARNG and the Service about the field training activities and drills WAARNG proposes to conduct at the Tumwater Readiness Center. Activities that disturb or degrade soil conditions (e.g., digging, grading) should avoid occupied MPG habitat to the fullest extent practicable. Staging and operation of heavy equipment should avoid occupied MPG habitat to the fullest extent practicable. In the event that any portion of the 53-acre site becomes occupied by Olympia pocket gophers in the future, it will be important that WAARNG establish, monitor, and enforce reasonable restrictions on field training activities and drills (e.g., timing, location, frequency or duration, etc.). It will be important that WAARNG establish and effectively implement an informational program for staff and personnel, including signage, maps, and other information identifying sensitive resources on the installation.

So that the Service may be informed of your decision, we request that WAARNG respond in writing to these recommendations. Your response should be directed to the Federal Activities Branch at the Washington Fish and Wildlife Office in Lacey, Washington, or via email to the staff and supervisor identified below.

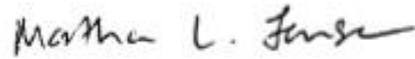
This concludes informal consultation pursuant to the regulations implementing the ESA (50 CFR 402.13). This action should be reanalyzed if new information reveals effects of the action that may affect listed species or critical habitat in a manner, or to an extent, not considered in this consultation. This action should also be reanalyzed if subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this consultation, and/or a new species is listed or critical habitat is designated that may be affected by the action.

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If you have any questions about this letter or our shared responsibilities under the ESA, please contact Ryan McReynolds at (360) 753-6047, or Martha Jensen at (360) 753-9000.

Sincerely,



for

Eric V. Rickerson, State Supervisor
Washington Fish and Wildlife Office

- **Letter Informing USFWS of the Change in Construction Location (Northern Portion instead of Central Portion Within the 53-ac Site)**



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

November 14, 2016

Martha Jensen
Branch Manager
Washington Fish and Wildlife Office
510 Desmond Drive SE
Lacey WA 98503

Re: WAARNG's Tumwater Readiness Center Project, Tumwater, Thurston County, WA

Dear Ms. Jensen,

This letter is to inform the U.S. Fish and Wildlife Service of the change in location of the proposed construction and operation of a WAARNG Tumwater Readiness Center (TRC) facility within the 53-ac site in Tumwater, Thurston County, WA. The TRC/FMS construction is now being proposed on the northern portion of the site instead of at the central portion. Despite this change in location within the site, our determination of *not likely to adversely affect* the Olympia pocket gopher and their habitat has not changed.

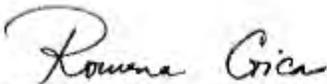
In our previous consultation and as indicated in the Biological Assessment (BA) prepared for this project, TRC/FMS construction was proposed in the central portion of the 53-ac site following the recommendations of AHBL Inc. whose services was retained by WMD to conduct a groundwater and drainage feasibility for this site. Geotechnical studies indicated, however, that the central portion of the site has soils that have liquefaction potential and low infiltration rates. As such, additional geotechnical studies had been conducted revealing that the northern portion of the site has soils that are more suitable for construction. A new predesign and schematic stormwater studies have been prepared for this section of the property (Figure 1). This section of the 53-ac site had already been developed in the past, is not heavily wooded, and groundwater issues can be readily mitigated.

As discussed previously with your staff, the WAARNG has also been preparing an Environmental Assessment (EA) for this proposed action that we anticipate to get out for public comment early next year. The National Guard Bureau/WAARNG would like to request an updated USFWS concurrence on our determination given the change in the location of construction within the 53-ac property.

Request for Concurrence on TRC Location Change
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November 14, 2016

We always greatly appreciate your assistance. Should you have any questions, comments, or clarifications about the BE or the project, please do not hesitate to contact the undersigned, Tel. (253) 512-8704, Fax (253) 512-8904, or e-mail at Rowena.valencia-gica@mil.wa.gov.

Sincerely,


Rowena Valencia-Gica, Ph.D.
Environmental Specialist

Request for Concurrence on TRC Location Change
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Figure 1. Map of the proposed original location and the new proposed location for the construction of the WAARNG's Tumwater Readiness Center within the 53-ac site in Tumwater WA.

- **Email to USFWS Re: Updated BE for TRC Project**

From: Valencia-Gica, Rowena B (MIL)

Sent: Thursday, November 17, 2016 9:29 AM

To: 'McReynolds, Ryan'

Cc: 'Jensen, Martha'

Subject: Updated BE for WAARNG's TRC Project in Tumwater WA

Attachments: TRC_Biological_Evaluation_Updated_20161115_F.pdf

Dear Ryan,

Last week, I sent you a letter seeking another concurrence on our previous determination of “not likely to adversely affect” the Olympia pocket gopher and their habitat. In this e-mail, I am providing you with an updated/revised BE for this project as the T&E list for this site has changed since we consulted with you in March 2016.

Please let us know if you have any comments/suggestions on the updated BE.

Thank you very much.

Sincerely,

Rowena

Rowena Valencia-Gica, Ph.D.

Environmental Programs

36 Quartermaster Road

Camp Murray WA 98430

DSN 323-8704

Desk 253-512-8704

- **Email Response from USFWS Re: Updated BE for TRC Project**

From: McReynolds, Ryan <ryan_mcreynolds@fws.gov>
Sent: Friday, November 18, 2016 9:26 AM
To: Valencia-Gica, Rowena B (MIL)
Cc: Jensen, Martha; Ryan McReynolds
Subject: Re: Updated BE for WAARNG's TRC Project in Tumwater WA

Thank you for the updates regarding this action.

I've reviewed the changed project description/location described in the Nov. 14 email and attachment. The revised BE still makes "no effect" determinations for all species and critical habitat except Olympia pocket gopher. I sort of doubt these changes require formal reinitiation. However, we're pretty busy with lots of other priorities right now. We'll close-the-loop with you again when we have a chance to look things over completely.

Thank You - Ryan -

Ryan McReynolds
U.S. Fish and Wildlife Service, Lacey WA
Consultation & Conservation Planning Division
ryan_mcreynolds@fws.gov
360.753.6047

- **Email to USFWS Requesting for Formal Response Re: Updated BE for TRC Project**

From: Valencia-Gica, Rowena B (MIL)
Sent: Tuesday, March 7, 2017 1:56 PM
To: McReynolds, Ryan
Subject: Request for written concurrence on the revised BE for WAARNG's Tumwater RC project

Dear Ryan,

This is to request for a formal letter regarding your response to the revised BE for the WAARNG's Tumwater RC project.

Previously, we sent you an updated BE indicating a change in the location of the construction within the 53-ac site, and a letter requesting concurrence on WAARNG's determination of the project to "not likely to adversely affect" the Olympia pocket gophers. You responded via email where you said "I sort of doubt these changes require formal reinitiation. However, we're pretty busy with lots of other priorities right now. We'll close-the-loop with you again when we have a chance to look things over completely."

Our National Guard Bureau (NGB) Program Managers interpreted your response as not concurring on WAARNG's determination of the project to "not likely to adversely affect" the Olympia pocket gophers. This seems to be the biggest issue that's holding our EA from being determined as legally sufficient at the NGB level.

In this regard, I'd greatly appreciate if you could please provide a formal response on our determination as stated in the revised BE.

Thank you and looking forward to receiving your letter.

Sincerely,
Rowena

Rowena Valencia-Gica, Ph.D.
Environmental Programs Supervisor
WMD/WAARNG
36 Quartermaster Rd, Camp Murray WA 98430
DSN 323-8466
Tel 253-512-8466

- **Formal Response Email from USFWS Re: Updated BE for TRC Project**

From: Jensen, Martha <martha_1_jensen@fws.gov>
Sent: Thursday, March 9, 2017 3:07 PM
To: Valencia-Gica, Rowena B (MIL)
Cc: Ryan McReynolds; Skjervold, Thomas O (MIL)
Subject: WAARNG Tumwater Readiness Center (FWS Ref. No. 01EWF00-2015-I-1007)

Dear Ms. Valencia-Gica,

On November 14 and 17, 2016, we received from the State of Washington Military Department - Washington Army National Guard (WAARNG) a description of proposed changes for the above-mentioned project.

WAARNG has collected additional engineering and geotechnical information within the 53-acre site. Based on this information, WAARNG now favors an alternate location for the proposed readiness center, vehicle storage building, field maintenance shop, and associated facilities, parking areas, and other improvements. Whereas these features were originally sited close to the center of the 53-acre site, WAARNG now proposes to shift these permanent features further to the north. The alternate location has been substantially altered and developed in the past, and now encompasses areas of compacted fill and gravel, woody shrubs, and nonnative weeds and grasses.

With our March 25, 2016, Letter of Concurrence the Service concluded the following:

- ◇ The 53-acre site is located within the range of the Olympia pocket gopher (OPG), and lies in close proximity to sites that are known to be occupied. The site's soils include medium- and low-preference soils.
- ◇ The best available scientific information suggests that the 53-acre site is not currently occupied by the OPG, and may never have been occupied in the past.
- ◇ Based on physical, environmental, and biological conditions on and near the site, the Service has determined that construction of the proposed Tumwater Readiness Center will not result in take of the OPG. It is extremely unlikely that individuals will be exposed to construction activities or resulting effects; construction exposures and effects to the OPG are considered discountable.
- ◇ The Service has determined that the direct and indirect effects of the proposed action will not degrade or destroy suitable, occupied OPG habitat, and will not further impair habitat connectivity or the potential for dispersal. Foreseeable direct and indirect effects to the OPG will not be measurable, and are therefore considered insignificant.

Based upon our review of the described changes and revised Biological Evaluation, the Service concludes that no new or additional effects to the OPG are likely to result from the proposed action. Our Letter of Concurrence, dated March 25, 2016, remains accurate and valid as a description of all foreseeable effects to the OPG and their habitat. We concur with your "may affect, not likely to

adversely affect" determination for the OPG. No further consultation on the proposed action is needed or warranted at this time.

However, please recall, our March 25, 2016, Letter of Concurrence did acknowledge a degree of uncertainty regarding proposed operations at the Tumwater Readiness Center (e.g., staging and training with field equipment, field training activities or drills conducted on-foot, routine facilities management and maintenance), and clearly indicated "...If, at a later date, WAARNG knows or suspects that any portion of the 53-acre site has become occupied by OPG, that would be a normal trigger or condition for reinitiation of ESA consultation on this proposed action."

Our March 25, 2016, Letter of Concurrence included the following conservation recommendations:

- ◊ 1) We recommend that follow-up screenings for indications of OPG occupancy should be conducted over the course of phased implementation and project delivery.
- ◊ 2) If any portion of the 53-acre site becomes occupied by OPG in the future, that would necessitate further discussion between WAARNG and the Service about the field training activities and drills WAARNG proposes to conduct at the Tumwater Readiness Center.

Thank you for providing updated information regarding the proposed action.

We concur with your "may affect, not likely to adversely affect" determination for the OPG and believe that no further consultation on the proposed action is needed or warranted at this time.

If you have any questions, or need anything else from the Service at this time, please call or email Ryan McReynolds (ryan_mcreynolds@fws.gov; 360-903-8595).

Martha Jensen
Branch Manager, Consultation Partnerships
Division of Consultation and Conservation Planning
Washington Fish and Wildlife Office
510 Desmond Dr. SE
Lacey, Washington 98503
tel: (360) 753-9000
email: martha_1_jensen@fws.gov

C. Other Agencies Consulted

- City of Tumwater

From: Chris Carlson <CCarlson@ci.tumwater.wa.us>
Sent: Tuesday, October 14, 2014 11:04 AM
To: Valencia-Gica, Rowena B (MIL)
Subject: RE: Property for sale in Tumwater

Hi Rowena –

The property in question is zoned properly (Light Industrial) for your intended use. The property is affected by high groundwater and wetlands. The wetland report would have to be redone because the wetland rating system has changed since the initial report was prepared. I have not seen a Gopher report for this property, but it certainly has the soils that would require a mound survey to be conducted. The mound survey is required to be done between the months of June to October. If the survey cannot be conducted by the end of this month, you would have to wait until next June to do one.

A tree survey and forester's report would have to be conducted to show how the developing property meets our tree protection standards (retain 20% of the trees on the site or 12 trees per acre, whichever number is greater).

All the frontage on Kimmie Street would have to be improved to City standard (i.e. curb & gutter, landscape strip, separated sidewalk, bike lane, street lights etc.). There are water and sewer latecomer fees that would need to be paid as well. You can contact Matt Webb of our Public Works Dept. to get the applicable fees for this site (360) 754-4140 or mwebb@ci.tumwater.wa.us

You would have to come through the City's site plan review process and go through review under the State Environmental Policy Act (SEPA).

Thanks.

Chris Carlson, AICP
Permit Manager
City of Tumwater
(360) 754-4180
ccarlson@ci.tumwater.wa.us
www.ci.tumwater.wa.us

From: Valencia-Gica, Rowena B (MIL) [mailto:Rowena.Valencia-Gica@mil.wa.gov]
Sent: Monday, October 13, 2014 2:36 PM
To: Chris Carlson
Subject: RE: Property for sale in Tumwater

Hello Chris,

As you may be already aware of, the agency's land acquisition deal with the Port of Olympia did not materialize. The agency is now looking for alternative site(s) for the Thurston County Readiness Center. Just late last week, we received an unsolicited offer from a property owner in Tumwater WA for his property located along Kimmie St. Attached is a sketch of said property. According to the realtor, some studies on the development of the site had already been conducted.

May I know if you are familiar with this property? Would you be able to help us identify any important environmental/construction concerns (high groundwater hazard, wetlands, MP gopher presence/habitat, access, etc.) that we should be aware of? I've looked at the Thurston geodatabase (as also shown in the attached sketch) and saw that the northern parcels are within the high groundwater hazard. Is the property zoned commercial? Any other information on the property that you may have that you can share to us?

I'd greatly appreciate your reply.

Sincerely,
Rowena

Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road,
Camp Murray WA 98430
Tel. 253-512-8704
Fax 253-512-8904
DSN 323-8704

- WAARNG's Pre-application Letter to the City of Tumwater



January 14, 2015

City of Tumwater
555 Israel Road SW
Tumwater, WA 98501

Project: Thurston County Readiness Center Environmental Assessment
AHBL No. 2140515.30
Subject: Feasibility Site Plan Review

Dear City Staff:

The Washington Military Department is looking for a suitable site for the future location of a National Guard Readiness Center to serve Thurston County. We are currently assessing the feasibility of 53 acres comprised of six tax parcels located at 83rd Avenue and Kimmie Street, as depicted on the aerial image below:



- Civil Engineers
- Structural Engineers
- Landscape Architects
- Community Planners
- Land Surveyors
- Neighbors

TACOMA
2215 North 30th Street
Suite 300
Tacoma, WA 98403-3350
253.883.2422
www.ahbl.com

City of Tumwater
January 14, 2015
2140515.30
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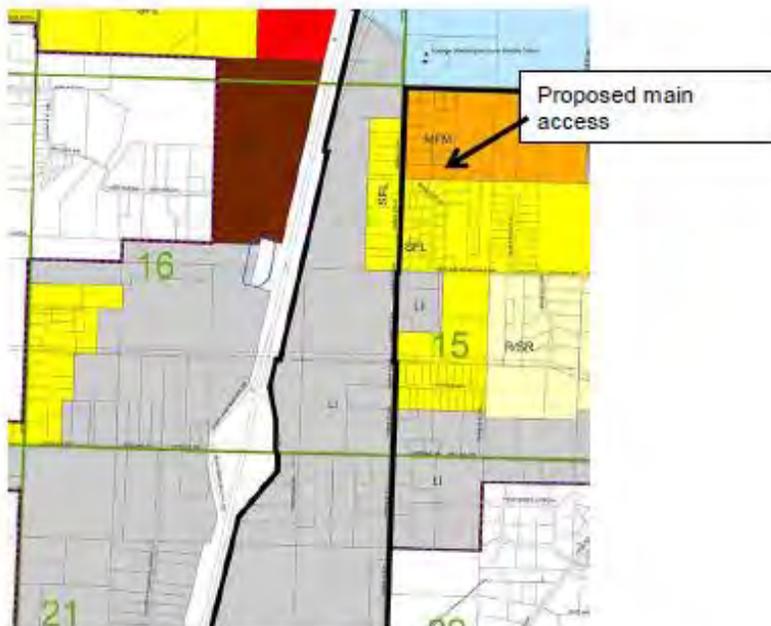
The facility will be the home for approximately 30 employees (at the most) during the average workweek, and one weekend per month it will be the location for training for approximately 300 reserve members. Several tanks and military vehicles will be stored onsite.

The facility will likely be accessed via the center of the property in the vicinity of 84th/85th Avenue SW. Secondary access may also be provided to a future maintenance yard in the area of 83rd Avenue SW. The Readiness Center will likely require about 15 acres of the total property, allowing a significant amount of the property to remain undisturbed and/or for stormwater infiltration.

The property is located in the Salmon Creek Basin within an area of known high groundwater. We understand additional design analysis is required for projects developed within the Salmon Creek Basin, including a groundwater mounding analysis, groundwater monitoring, and infiltration tests. We have completed a preliminary assessment of how stormwater will be handled onsite and potential grading quantities (see the enclosed Conceptual Stormwater Plan).

At the meeting, we would like to discuss the following:

1. How will the City define the use? Most of the property is located in the LI zoning district, but some is located in the SFL zone.



2. Based on the defined use, what is the land use approval process? Will it require a Conditional Use Permit?
3. Will the property zoned SFL be required to meet the minimum residential density requirements described in TMC 18.05.050?

City of Tumwater
January 14, 2015
2140515.30
Page 3 of 3



4. Are there any concerns or special requirements for the primary access location in the vicinity of 84th/85th Avenue SW and Kimmie Street?
5. We understand the 93rd Avenue SW Interchange is operating below an acceptable level of service. Please describe the City's requirements and anything you may know regarding WSDOT's requirements for improvements, given the low level of peak hour trips.
6. From our initial evaluation, it appears that some fill will be needed to develop the site. Please describe the process to obtain an initial grading/stockpile permit to allow material to be brought to the site.
7. It appears that sewer and water are available to the site from Kimmie Street. Please confirm these are the only applicable water and sewer agreements. We would appreciate your help in confirming the associated latecomer fees and general facility charges that may be required for developing this property.
8. Please describe any offsite or frontage improvements that may be required, if applicable.
9. It appears that an alternative access to the site may be possible from Frontage Road SW. This roadway is currently unimproved and provides access to a logging operation north of the site. Please describe if the roadway is available for access and what improvements may be needed if it was used as an emergency access.
10. Please describe any other concerns or issues that the City is aware of with respect to development of the property.

Thank you for your assistance. We look forward to meeting with you.

Sincerely,

A handwritten signature in blue ink that reads "Lisa Klein".

Lisa Klein, AICP
Associate Principal

LK/lsk

c: Thomas Skjervold, Washington Military Department
Matt Weber, AHBL

Enclosures

- **Thurston County Regional Planning Council**

From: Valencia-Gica, Rowena B (MIL)

Sent: Tuesday, May 12, 2015 12:18 PM

To: brewstp@trpc.org

Subject: New Market Industrial Campus

Signed By: Rowena.Valencia-Gica@mil.wa.gov

Hello Mr. Brewster,

This is to request for some information/studies/reports that you may have for the New Market Industrial Campus and Tumwater Town Center property districts planning process and other developments/projects in the area.

You may have already been aware that the Washington Military Department (WMD) recently purchased a property along Kimmie St. SW (previously owned by Mr. William Barnett) where a Washington Army National Guard Readiness Center is being proposed for construction and operation. The property lies on the west and southwest borders of your NMIC project.

I am preparing the Environmental Assessment (EA) for this Readiness Center project and would like to request for some information from you/your office as follows:

1. What commercial/industrial developments are taking place or planned (next 5 to 10 years) around the WMD property (for cumulative impacts determination)
 2. Environmental Assessments or SEPA documents that are available for projects that had taken place recently (last 5 or 10 years) or proposed around the WMD property
 3. Any other information/reports that you may have that would help us develop our EA
- I'd greatly appreciate your reply.

Sincerely,

Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road,
Camp Murray WA 98430
Tel. 253-512-8704
Fax 253-512-8904
DSN 323-8704

- **D. Public Meeting**

1. Summary of Comments Received

**Public Meeting Comments Response Matrix
 WAARNG Tumwater Readiness Center
 June 30, 2015**

Letter Number	Name	Date	Topic*	Comment	Comment Response
1	Don and Janice Eckloff	7/6/2015	Water R	<p>Groundwater flooding - Our house is a split-level with a half basement. During previous ground water flooding events there has never been a problem with the four foot deep basement, crawl space, or septic system, and never any standing water on the property. This goes back to the early 1970's. Nobody knows if the construction of your facility will alter this favorable condition.</p> <p>We will have continuing concerns of how your presence will affect the unprotected aquifer. The National Guard appears to have its environmental act together, a 21st Century entity that dots i's and crosses t's, but there is always the human element. People do dumb things and make mistakes.</p>	<p>Regional flooding in the late 1990's inspired new regulations intended to assure new development would not adversely impact existing properties. To protect assets and the community, the WAARNG will construct the TRC facility in accordance with the City of Tumwater's stormwater management code Section 2.2.8, Volume V of the 2010 Drainage Design and Erosion Control Manual (DDECM). This means the facility design and site layout will be configured to minimize impacts to neighboring properites according to a strict standard. The preliminary design work done with repect to that regulation has the construction occurring in the central portion of the site, and using full dispersion (into protected forest buffers) and infiltration techniques to vertically separate stormwater from groundwater.</p>

Letter Number	Name	Date	Topic*	Comment	Comment Response
			Noise	<p>The handout only covers noise as related to street traffic. We are your immediate "downwinders" and one of your closest neighbors. When I think of military vehicles, I think of big trucks, personnel carriers, and self-propelled cannons powered by noisy diesel engines with toxic exhaust. The noise generated by the vehicles used on-site for training exercises was not mentioned. During the energy crisis in the '70's, I-5 was a four lane 55 mph freeway. It is now a six lane highway with a 70 mph speed limit. The background noise level from I-5 has increased significantly. We are concerned about any additional increase in the existing noise level in the area. A documented background noise survey would be valuable if problems came up in the future. We are also concerned with noise from the construction activity.</p>	<p>After the public meeting, as part of the environmental impact determination process, a noise study was conducted by SSA Acoustics. That study concluded that the TRC construction and operation would have less than significant impacts to the community. Noise to be generated from construction activities would be short-term, intermittent, and localized. Construction noise emanating from the site is expected to attenuate before reaching noise receptors. Sensitive receptors (Kimmie St. residential community, George W. Bush Middle School) are buffered by densely wooded vegetation, and are already experiencing road noise from neighborhood streets and I-5. BMPs for minimizing noise would be implemented during the construction period. Once constructed, the facility is expected to provide a buffer to these sensitive receptors from I-5 noise. In National Guard Readiness Centers such as at the proposed TRC facility, noise would be generally light and generated primarily by vehicle traffic and facility HVAC systems. There is not a lot of vehicle movement in the facility that would significantly elevate noise levels. These noise generation would occur during daytime business hours. No live weapons training will be conducted at the TRC facility and no other regular activities to be conducted at the facility would produce unusually high noise levels. General ambient noise levels are therefore expected to be normal for an already developed area.</p>
			Infrastr	<p>The initial site drawing shows a north-south service road on the east side of the property, running north from the building. We would appreciate having this road moved as far west as site restrictions allow.</p>	<p>This concern would be considered during the design phase.</p>
			Air Qual	<p>Air pollution was not part of the discussion and was not mentioned in the handout. It goes along with the diesel exhaust from the construction and military equipment. Diesel exhaust is a documented health hazard. Also, we can only hope you have a considerate contractor who will keep the dust under control.</p>	<p>Air pollution is part of the Environmental Assessment. Emissions from the additional vehicular traffic as well as operational equipment (generator, HVAC) would be minimal and are not anticipated to affect local and regional air quality. Impacts due to the potential fugitive dust generation from construction activities would be short-term, localized and would be minimized by the implementation of best management practices (BMPs) for dust control. Contractor will be required to have a Dust Control Plan.</p>

Letter Number	Name	Date	Topic*	Comment	Comment Response
			Wildlife	Wildlife was another omission at the meeting and in your written material. The construction of your facility will impact the habitat of several species. A thorough Environmental Assessment will include this habitat disturbance. In the long run, the wildlife, and the human residents of the area, will be <u>better off with your presence than with most of the</u>	Impacts on wildlife is part of the Environmental Assessment. TRC will be built in mostly already cleared or disturbed section of the site and limited to 12 ac out of the 53 ac. Much of the forest and existing vegetation will be retained for stormwater management.
			Others	Security is not normally considered an environmental issue. It is included here for the record. The public perception of a National Guard Armory is a place where weapons are stored. There is a long history of Armories being broken into. Automatic weapons and rocket propelled grenade launchers have a definite attraction. It brings a new and different element to the neighborhood. A target for burglars, gangsters, and religious fanatics. Fencing was dismissed, there won't be an institutional perimeter fence. What if we want an aesthetically appropriate fence on our shared property lines? One of the potential uses mentioned for the lot on the north side of your entrance road, and south of <u>our property, included public access.</u>	Weaponry at National Guard Readiness Centers is protected with security features that meet high contemporary standards that are well protective of the resources within and the surrounding community. These comments on security are noted and will be referred to the Anti-Terrorism/Force Protection group. Security fencing will be provided to protect vehicles in the military equipment parking areas, though the full perimeter of the property likely not be fenced. Fencing along shared property boundaries may be discussed with the WAARNG when the time comes, but it is likely that the access to the Readiness Center portion of the property will be well removed from the edges of adjacent properties.
			Overall Impact	Your letter states the project will be environmentally neutral, and the handout states there are no environmental impacts. From the perspective of a resident, the environmental impact will be negative, hopefully slightly. One helicopter coming in low over the house, in the middle of the night will definitely be a negative. Your preparation, due diligence, and presentation were all well done. After 40 years of wondering what's going to happen on the property behind us, it's finally <u>happening. Your professionalism gave us confidence it will be</u>	Comments noted. The analysis indicates that the impacts will be less than significant. There are no plans to develop helicopter landing facilities, and there will be no helicopter or any other aircraft operations associated with the TRC project.
2	Steven Rees	7/6/2015	Infrastr	I would like to support the suggestion of moving the entrance further north, away from Burns Drive and a greater concentration of residential housing. I also support the suggestion by one of my neighbors, to make the secondary entrance (across Kimmie from 83rd) the primary entrance. This would minimize traffic near almost all of the houses in the area. Thank-you for your time and consideration.	Comments noted and will be considered in the design phase.

Letter Number	Name	Date	Topic*	Comment	Comment Response
			Overall	Thank-you for the informative meeting last Monday night at Bush Middle School. It sounds like the proposed Readiness Center will have a lesser impact on the surrounding residential areas than first imagined by many.	Comments noted.
3	Don Eckloff	7/9/2015	Water R	Helmer Gustafson told me he had a suit against the State over the construction of Interstate – 5. He claimed that prior to the construction of I-5 there was no standing water on his property. Surface water all flowed to the west to a maintained drainage ditch. He said that a culvert was installed under the right-of-way, but was installed at too high an elevation and didn't drain the property on the east side of the newly built freeway. His suit was over the elevation of the drainage culvert. Presumably, the suit died with his death. Since the building and detention pond site will have to be elevated, it occurred to me that if there is a culvert under the freeway, it may be of some use in draining the stormwater from the site.	Comment/suggestion noted and will be considered in the design phase.
4	Dr. E. J. Zita	7/14/2015	Natural	1. "No significant impacts on natural/cultural resources and human environment, with adoption of best management practices" ? a. Cultural resources include peace and community in our walkable neighborhood. Increased vehicle traffic on Kimmie St. will impact this resource.	A Traffic Impact Analysis showed that typical weekday traffic volumes are expected to be very low even with the addition of up to 25 personnel working at the TRC and will not adversely impact the community.
				b. Cultural/natural resources include enjoyment of Kimmie St. and its environs for recreation including bicycling, running, berry-picking, bird-watching, and nature study. Kimmie St. is a designated bike route in Thurston County, enjoyed by community members countywide.	The TRC project will not change the designated use of Kimmie St. Much of the natural vegetation/trees in the project site will be retained for stormwater management.
				c. Clearing and paving forest will displace remove trees and other plants, and will displace deer, foxes, coyotes, gophers, birds, and other natural resources.	Much of the natural vegetation/trees will be retained for stormwater management. Although wildlife may temporarily move to neighboring forests during construction phase, these are expected to return to the natural areas in the project site after construction is completed.

Letter Number	Name	Date	Topic*	Comment	Comment Response
			Infrastr	2. "No adverse effects from potential increase in vehicular traffic on Kimmie St." ? You suggest that traffic will be directed to use exit 99 to the north, to avoid congestion around exit 101 to the south. Bush Middle School is north, and our neighborhood is south. Both the school and the neighborhood are likely be impacted by noise and emissions from TRC and its vehicles, whether vehicles access I-5 via exit 99 or exit 101.	TRC personnel will be required to use Exit 101 (north of the facility) instead of Exit 99 (south of the facility). Traffic impacts are discussed in the Environmental Assessment and in the Traffic Impact Analysis, and Tumwater Development Code requires minor impacts to roadways be paid for through development permit fees.

Letter Number	Name	Date	Topic*	Comment	Comment Response
				<p>a. What is the maximum number of vehicle trips per day projected in your traffic analysis?</p> <p>b. How many vehicles, of what kinds, at what times of day, are projected?</p> <p>c. What are the projected rates of increases in vehicle accidents?</p> <p>d. Can semi-truck traffic on Kimmie St. be proportionally decreased if the TRC is built?</p> <p>e. What are the ratings of nearby intersections currently? For example, the Kimmie St & 93rd Ave. intersection was rated "D" or near failing a couple of years ago.</p> <p>f. What are the projected ratings of those intersections when the TRC has maximum traffic?</p> <p>g. What traffic mitigations are proposed?</p> <p>h. How will the recommended use of Exit 101 be enforced?</p> <p>i. How does this impact safety of schoolkids at Bush Middle School?</p> <p>j. Neighbors have suggested that bike lanes and sidewalks be constructed along Kimmie St., to minimize risks to public safety.</p> <p>k. How much would diesel fumes and other emissions increase? We would like quantitative estimates from an agency such as the Department of Ecology.</p> <p>l. Diesel fumes are carcinogenic, especially to children. What measures will be taken to minimize this danger to public health?</p>	<p>a. 25 weekday privately operated vehicles and 300 POVs one Saturday per month. b. see (a) above - POVs on weekdays and 1 weekend per month; up to 129 military vehicles may be stored in the vehicle storage but most of these may be placed in Yakima Training Center where they are used for annual training</p> <p>c. No projections on change in the rate of vehicle accidents has been made because the impact is calculated to be less than significant. d. This is beyond the control of the WAARNG.</p> <p>e. WAARNG has no data. f. WAARNG has no data. g. See Traffic Impact Analysis prepared by Transpo Group. h. The requirement will be included in soldiers' Personnel Development Plan. i. The addition of up to 25 personnel is not expected to cause safety issues different from what currently occurs in the neighborhood streets. Kimmie St. is already being used by commercial vehicles/trucks and has a speed limit of 35 mph. Because TRC personnel would be working four 10-hour shifts per week (the current schedule for most WMD/WAARNG employees), their start and end time for working at the facility will not coincide with the peak hours of Kimmie St. use by schoolchildren, staff and parents ferrying their kids to and from school. j. The WAARNG will follow the City of Tumwater's requirements, meaning the developed property will be required to meet Tumwater frontage improvement requirements. k. The Record of Non-Applicability that provides emissions estimates is an appendix to the EA. l. The TRC construction and operation is not expected to emit significant amounts of diesel fumes.</p>

Letter Number	Name	Date	Topic*	Comment	Comment Response
			Noise	<p>3. "Insignificant increase in traffic noise along Kimmie St." ?</p> <ul style="list-style-type: none"> • We would like to see an independent analysis of projected increases in noise, depending on projected traffic patterns from TRC, perhaps by the Department of Ecology. • How does this depend on time of day, week, and month? • How can preservation of dense stands of mature forest mitigate noise impacts? • What other noise sources are expected from the TRC? • What mitigation options are available for on-site noise? Earth berms? Would those exacerbate flooding? 	<p>Noise concerns were discussed in the EA. An independent noise study was conducted by SSA Acoustics.</p>
			Infrastructure (Traffic)	<p>4. "One weekend a month, ~300 soldiers will use the TRC for their monthly drills."</p> <ul style="list-style-type: none"> • There appear to be 240 parking spots on the map of the TRC. Will these soldiers be bussed in? • How many additional vehicle trips per day are projected during monthly drills? • Soldiers are expected to generate significant income at local businesses – therefore they should also be expected to generate significant traffic. Where and how much? • How long does a weekend last? • We would like to see estimates of peak values for all impacts during monthly drills. 	<p>The TRC project is expected to generate 25 new weekday PM peak hour trips and at most 300 inbound and outbound trips one weekend per month. Congestion or street parking is not anticipated to occur during weekdays or weekends because the TRC facility would be built with sufficient parking spaces to accommodate personnel and drill weekend visitors. There are also existing paved spaces and areas without vegetation (approximately 2.64 ac) at the northern portion of the project site that can be used as overflow parking spaces. It is extremely rare for soldiers scheduled to drill on a certain weekend to have 100% attendance. Drill is one Saturday per month. Arrivals for the weekend training session are not expected to have a significant impact on the existing transportation network due to staggered arrival of soldiers, and generally reduced background traffic volumes on late Friday evenings or Saturday mornings. Similarly, background traffic volumes are also lower on Sundays when reservists depart from the weekend training. All traffic concerns were covered in the Traffic Impact Analysis and the EA.</p>

- **Comment Letters Received**

2. Dr. and Mrs. Marion

8640 Burns Drive SW
Olympia, WA 98512
July 9, 2015

Dr. Rowena Valencia-Gica
Environmental Specialist
Environmental Programs
36 Quartermaster Road
Camp Murray, WA 98430-5000

Dear Dr. Valencia-Gica:

I am responding to your public scoping regarding the Construction and Operation of a WAARNG Readiness Center on Kimmie Street, SW, Tumwater, WA. We live on a property that is approximately 0.5 miles SE of the site in question. We were travelling in Oregon (attending a meeting in Pendleton) and were unable to attend the June 30th public scoping meeting at the George Washington Bush Middle School Auditorium. This letter and attachments are intended to be our input.

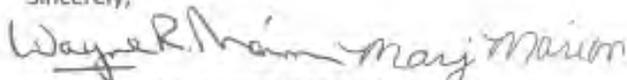
As you very likely know, this entire area has sandy loam soils and is considered to be habitat (even if forested) of the threatened Mazama pocket gopher (MPG) in Thurston County, WA. Presumably, you have begun the screening process for this property this summer with the U.S. Fish & Wildlife Service (Tim Romanski) in Lacey, WA. If evidence of MPG is found in 3 summer visits to the property, then it may be difficult to construct the buildings you have outlined for this site. A Habitat Conservation Plan (HCP) or other site mitigation may be necessary in order to proceed with the outlined construction plan. Enclosed are copies of materials from the U.S. Fish and Wildlife Service regarding potential 'take' of this threatened subspecies of MPG.

We do have some concerns about the likely increase in activity, traffic and noise associated with this facility during and after construction. We already get considerable traffic noise from I-5 and hope that your facility will not increase that significantly.

I also noticed what I think might be a typo in your letter of June 15, 2015 to us. The addresses listed in paragraph 1 are 8102, 8311 and 8427 Kimmie Street – the first address is to the East of Kimmie Street and the second two addresses are to the west of Kimmie Street. I am presuming that the first address is in error and that the entire project is WEST of Kimmie Street as shown on the map? Please advise ...

Thank you for considering these comments.

Sincerely,


Wayne R. Marion, Ph.D. and Marj Marion

E-mail: waynemarion@comcast.net
360-870-1645

Enclosures

3. WMD's response to Marions



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

July 14, 2015

Dr. Wayne R. Marion/Mrs. Marj Marion
8640 Burns Drive SW, Olympia WA 98512

Dear Dr. and Mrs. Marion,

This letter is in response to your letter dated July 9, 2015. We greatly appreciate your efforts doing some research on the Washington Military Department's (WMD) project site and sending us the information you got. Thank you also for sharing us your comments/suggestions about this proposed project.

Regarding the Mazama Pocket Gopher, we have been aware that the proposed Tumwater Readiness Center (TRC) site has some soils that are suitable habitat for this endangered species. As early as January 2013 when the WMD was still searching for a property where we would build this readiness center, we have already been discussing our proposed action with the US Fish and Wildlife Service and other concerned agencies. Once WMD finalized the purchase agreement and obtained the Certificate of Title, we invited the USFWS to meet with us to provide us guidance on how to survey for the MP Gopher. On July 2, 2015, we met with USFWS staff and the first site visit was done on July 13. The WMD is preparing a Biological Assessment, which will be a part of an Environmental Assessment (EA) for this project.

We share your concerns about the likely increase in activity, traffic and noise associated with this proposed action. At this time, our initial determination is that the project will not significantly increase the traffic and noise in Kimmie St. area, and we anticipate that the facility may, in fact, help reduce I-5 noise by serving as a noise barrier. More details on impact determination regarding traffic, noise and other environmental aspects will be presented in the EA.

With regard to the address indicated in the scoping letter, those were the listed addresses for the parcels that comprise the entire 53-acre as provided to us by the Thurston County Title Company. My research showed that the 8102 Kimmie St. SW address belongs to the triangular parcel on the north of the 53-ac property. We can verify the location of 8102 Kimmie St. SW with Thurston County. It is correct that the entire 53-ac land is all to the west of Kimmie St. as shown on the map provided in the scoping letter.

Should you have any additional comments/suggestions, please let us know.

Sincerely,

A handwritten signature in cursive script that reads "Rowena Gica".

Rowena Valencia-Gica, Ph.D.
Environmental Specialist

4. Mr. Durant's e-mail

From: Valencia-Gica, Rowena B (MIL)
Sent: Friday, July 17, 2015 3:10 PM
To: 'specent@msn.com'
Cc: Shagren, Karina L. (MIL); Skjervold, Thomas O (MIL)
Subject: Tumwater Readiness Center project

Dear Mr. Durrant,

I was informed that you had a phone conversation with Ms. Shagren on July 14 regarding our proposed TRC project. I realized that you were present during the public scoping meeting and so we thank you for participating in that event. I was told that you were inquiring about a need for housing, since our proposed project is very proximate to your property at 88th St SW. We're not certain about the nature of the inquiry so if you could provide me some additional information or clarification, we may be able to respond appropriately or consider your suggestion/comment in the development of the Environmental Assessment for this project.

Thank you,
Rowena

Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road,
Camp Murray WA 98430
Tel. 253-512-8704
Fax 253-512-8904
DSN 323-8704

5. E-mail from and WMD's response to Mr. Steven Rees

From: Steven Rees [rees.s@comcast.net]
Sent: Thursday, July 02, 2015 3:31 PM
To: NGWA.Environmental@washingtonguard.org
Subject: Tumwater Readiness Center

To: Tom Skjervold/Rowena Valencia-Gica

Thank-you for the informative meeting last Monday night at Bush Middle School. It sounds like the proposed Readiness Center will have a lesser impact on the surrounding residential areas than first imagined by many. I would like to support the suggestion of moving the entrance further north, away from Burns Drive and a greater concentration of residential housing. I also support the

suggestion by one of my neighbors, to make the secondary entrance (across Kimmie from 83rd) the primary entrance. This would minimize traffic near almost all of the houses in the area. Thank-you for your time and consideration.

Sincerely,

Steve Rees
8631 Burns Dr. SW

From: Valencia-Gica, Rowena B (MIL)
Sent: Monday, July 06, 2015 6:07 AM
To: Steven Rees
Cc: Skjervold, Thomas O (MIL)
Subject: RE: Tumwater Readiness Center

Dear Mr. Rees,

We greatly appreciate your presence during the public scoping meeting. Also thank you for voicing out your concerns and suggestions about this project.

Rest assured that we will consider your suggestion in evaluating options during this planning and pre-design/design phases and discuss these to the leadership.

Should you have additional concerns/suggestions, please let us know.

Sincerely,
Rowena

Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road, Camp Murray WA 98430 Tel 253-5128704; Fax 253-512-8904
E-mail: rowena.valencia-gica@mil.wa.gov

6. Mr. Eckloff's Letter in an E-mail

July 6, 2015

Washington National Guard

Environmental Programs

Attn: Dr. Rowena Valencia-Gica

Mr. Tom Skjervold

Re: Tumwater Readiness Center

Thank you for the information you provided at the public meeting on June 30. Our major concerns were addressed and at least somewhat alleviated. The issues presented here are our perception of potential environmental problems:

Ground water flooding was well presented as a problem by our neighbors. Our house is a split-level with a half basement. During previous ground water flooding events there has never been a problem with the four foot deep basement, crawl space, or septic system, and never any standing water on the property. This goes back to the early 1970's. Nobody knows if the construction of your facility will alter this favorable condition.

Noise remains as a concern. The handout only covers noise as related to street traffic. We are your immediate "downwinders" and one of your closest neighbors. When I think of military vehicles, I think of big trucks, personnel carriers, and self-propelled cannons powered by noisy diesel engines with toxic exhaust. The noise generated by the vehicles used on-site for training exercises was not mentioned. During the energy crisis in the '70's, I-5 was a four lane 55 mph freeway. It is now a six lane highway with a 70 mph speed limit. The background noise level from I-5 has increased significantly. We are concerned about any additional increase in the existing noise level in the area. A documented background noise survey would be valuable if problems came up in the future. We are also concerned with noise from the construction activity.

The initial site drawing shows a north-south service road on the east side of the property, running north from the building. We would appreciate having this road moved as far west as site restrictions allow.

Air pollution was not part of the discussion and was not mentioned in the handout. It goes along with the diesel exhaust from the construction and military equipment. Diesel exhaust is a documented health hazard. Also, we can only hope you have a considerate contractor who will keep the dust under control.

Fencing was dismissed, there won't be an institutional perimeter fence. What if we want an aesthetically appropriate fence on our shared property lines? One of the potential uses mentioned for the lot on the north side of your entrance road, and south of our property, included public access.

Wildlife was another omission at the meeting and in your written material. The construction of your facility will impact the habitat of several species. A thorough Environmental Assessment will include this habitat disturbance. In the long run, the wildlife, and the human residents of the area, will be better off with your presence than with most of the alternatives.

We will have continuing concerns of how your presence will affect the unprotected aquifer. The National Guard appears to have its environmental act together, a 21st Century entity that dots i's and crosses t's, but there is always the human element. People do dumb things and make mistakes.

Security is not normally considered an environmental issue. It is included here for the record. The public perception of a National Guard Armory is a place where weapons are stored. There is a long history of Armories being broken into. Automatic weapons and rocket propelled grenade launchers have a definite attraction. It brings a new and different element to the neighborhood. A target for burglars, gangsters, and religious fanatics.

Your letter states the project will be environmentally neutral, and the handout states there are no environmental impacts. From the perspective of a resident, the environmental impact will be negative, hopefully slightly. One helicopter coming in low over the house, in the middle of the night will definitely be a negative.

Your preparation, due diligence, and presentation were all well done. After 40 years of wondering what's going to happen on the property behind us, it's finally happening. Your professionalism gave us confidence it will be done right.

Sincerely,

Janice Eckloff

Don Eckloff

8449 Kimmie Road SW

Copy: Tumwater City Council

From: Don Eckloff [jdeck43@outlook.com]
Sent: Monday, July 13, 2015 9:04 AM
To: ngwa.environmental@washingtonguard.org
Subject: Neighbors
Dr. Rowena Valencia-Gica / Mr. Tom Skjervold

I talked briefly to Tom about this subject after the meeting. If this isn't under your control please pass the message on to the proper party.

It has been nice not having direct neighbors during the time we have lived here. One problem has been not having good communication with the non-resident owners. The vacant property has been left in a natural state, just gone wild. This has created some nuisance problems for us. The trees and brush that grows along the property line, in their reach for sunlight, encroach into our open air space. It's been a constant battle with some hazel nut brush on the south side of our house. Several maple trees have grown up and a large part of the growth of some of them is over our property. With the prevailing wind we probably get 95% of the leaf drop from all these trees. The leaves are on the roof, gutters, lawns, and planting areas. The major branches of a hemlock tree are over a planting area. It is a prolific reproducer, thousands of seedlings sprout every spring.

There are a few invasive weeds in the area. Nothing serious along these lines, but with the guard's help their presence can be reduced.

There is probably the mother of all ant hills on the front of the property near Kimmie St. They have trails across our property and frequently start up satellite nests. It's been there for years. Hopefully this nest will be eradicated and the ant population in the area will be greatly reduced.

Looking forward to talking to somebody about these nuisances.

Don Eckloff

7. WMD's Responses to Mr. Eckloff's Letter and E-mail

b. Response to the Letter

From: Valencia-Gica, Rowena B (MIL)
Sent: Tuesday, July 07, 2015 1:53 PM
To: Don Eckloff; NGWA.Environmental@washingtonguard.org
Cc: council@ci.tumwater.wa.us; Skjervold, Thomas O (MIL)
Subject: RE: Tumwater Readiness Center

Dear Mr. Eckloff,

Thank you very much for sending us this letter expressing your concerns about the WAARNG's proposed Tumwater Readiness Center project at Kimmie St. SW. As well, we greatly appreciate your presence and participation during our recent public scoping meeting for this project in Tumwater.

Rest assured that we will consider your suggestions/comments in evaluating alternatives during this planning and pre-design/design phases and project impacts determination. We will provide you a formal response soon.

Should you have additional concerns/suggestions, please let us know.

Sincerely,
Rowena

Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road,
Camp Murray WA 98430
Tel. 253-512-8704
Fax 253-512-8904
DSN 323-8704

b. Response to the E-mail

From: Valencia-Gica, Rowena B (MIL)
Sent: Monday, July 13, 2015 9:29 AM
To: Don Eckloff; ngwa.environmental@washingtonguard.org
Subject: RE: Neighbors

Dear Mr. Eckloff,

Thank you for sending us your additional concerns regarding WMD's project site.

As the natural resources program manager and the integrated pest management coordinator for the agency, I will take note of all your concerns. Once the facility is built and maintenance funds begin to be allocated for this new facility, we will review your concerns and determine what action would be allowed and could be taken to address these.

Sincerely,
Rowena

8. E-mail from and WMD's Response to Mr. Steven Rees

From: Steven Rees [rees.s@comcast.net]
Sent: Thursday, July 02, 2015 3:31 PM
To: NGWA.Environmental@washingtonguard.org
Subject: Tumwater Readiness Center

To: Tom Skjervold/Rowena Valencia-Gica

Thank-you for the informative meeting last Monday night at Bush Middle School. It sounds like the proposed Readiness Center will have a lesser impact on the surrounding residential areas than first imagined by many. I would like to support the suggestion of moving the entrance further north, away from Burns Drive and a greater concentration of residential housing. I also support the suggestion by one of my neighbors, to make the secondary entrance (across Kimmie from 83rd) the primary entrance. This would minimize traffic near almost all of the houses in the area. Thank-you for your time and consideration.

Sincerely,

Steve Rees
8631 Burns Dr. SW

From: Valencia-Gica, Rowena B (MIL)
Sent: Monday, July 06, 2015 6:07 AM
To: Steven Rees
Cc: Skjervold, Thomas O (MIL)
Subject: RE: Tumwater Readiness Center

Dear Mr. Rees,

We greatly appreciate your presence during the public scoping meeting. Also thank you for voicing out your concerns and suggestions about this project.

Rest assured that we will consider your suggestion in evaluating options during this planning and pre-design/design phases and discuss these to the leadership.

Should you have additional concerns/suggestions, please let us know.

Sincerely,
Rowena

Rowena Valencia-Gica, Ph.D.
Environmental Specialist
36 Quartermaster Road, Camp Murray WA 98430 Tel 253-5128704; Fax 253-512-8904
E-mail: rowena.valencia-gica@mil.wa.gov

9. Salmon Creek Neighborhood Association Comment Letter

TO: Mr. Tom Skjervold and Rowena Valencia-Gica, PhD
Environmental Programs, 36 Quartermaster Rd., Camp Murray WA 98430 Tel: (253) 512-8466 / (253) 512-8704; Fax: (253) 512-8904 E-mail: NGWA.Environmental@washingtonguard.org

FROM: E.J. Zita, VP, Salmon Creek Basin Neighborhood Association
PO Box 1441, Olympia WA 98507 ejzita@gmail.com

RE: Proposed TRC for WAARNG on Kimmie St., Tumwater WA on "Bunny Property"

Date: 14 July 2015

Dear Mr. Skjervold and Dr. Valencia-Gica:

Thank you for providing our Neighborhood Association with information about the proposed Tumwater Readiness Center (TRC) for the Washington Army National Guard (WAARNG) on Kimmie Street. Let me affirm support for our armed services: I graduated from a US military high school abroad, and am married to a 23-year Army veteran.

As you know, Kimmie St. is our neighborhood main street, with homes on both sides of the street and Bush Middle School across from the proposed development. We neighbors appreciate the opportunity to contribute to an open public process as you initiate planning on this project.

I understand that information was sent last month to some neighbors. I did not receive it. I formally request that all future information about this project also be sent to our neighborhood board members by email, and to all residents of the Salmon Creek Basin Neighborhood by mail. Please see Appendix 1.

In your slideshow presented on 30 June 2015, you note some "potential impacts for consideration."

1. "No significant impacts on natural/cultural resources and human environment, with adoption of best management practices" ?
2. No adverse effects from potential increase in vehicular traffic on Kimmie St." ?
3. Insignificant increase in traffic noise along Kimmie St." ?
4. "One weekend a month, ~300 soldiers will use the TRC for their monthly drills."

We formally request further consideration of these questions and potential impacts:

1. "No significant impacts on natural/cultural resources and human environment, with adoption of best management practices" ?
 - a. Cultural resources include peace and community in our walkable neighborhood. Increased vehicle traffic on Kimmie St. will impact this resource.
 - b. Cultural/natural resources include enjoyment of Kimmie St. and its environs for recreation including bicycling, running, berry-picking, bird-watching, and nature study. Kimmie St. is a designated bike route in Thurston County, enjoyed by community members countywide.
 - c. Clearing and paving forest will displace remove trees and other plants, and will displace deer, foxes, coyotes, gophers, birds, and other natural resources.

2. No adverse effects from potential increase in vehicular traffic on Kimmie St. ?

You suggest that traffic will be directed to use exit 99 to the north, to avoid congestion around exit 101 to the south. Bush Middle School is north, and our neighborhood is south. Both the school and the neighborhood are likely be impacted by noise and emissions from TRC and its vehicles, whether vehicles access I-5 via exit 99 or exit 101.

- a. What is the maximum number of vehicle trips per day projected in your traffic analysis?
- b. How many vehicles, of what kinds, at what times of day, are projected?
- c. What are the projected rates of increases in vehicle accidents?
- d. Can semi-truck traffic on Kimmie St. be proportionally decreased if the TRC is built?
- e. What are the ratings of nearby intersections currently? For example, the Kimmie St & 93rd Ave. intersection was rated "D" or near failing a couple of years ago.
- f. What are the projected ratings of those intersections when the TRC has maximum traffic?
- g. What traffic mitigations are proposed?
- h. How will the recommended use of Exit 101 be enforced?
- i. How does this impact safety of schoolkids at Bush Middle School?
- j. Neighbors have suggested that bike lanes and sidewalks be constructed along Kimmie St., to minimize risks to public safety.
- k. How much would diesel fumes and other emissions increase? We would like quantitative estimates from an agency such as the Department of Ecology.
- l. Diesel fumes are carcinogenic, especially to children. What measures will be taken to minimize this danger to public health?

3. "Insignificant increase in traffic noise along Kimmie St." ?

- We would like to see an independent analysis of projected increases in noise, depending on projected traffic patterns from TRC, perhaps by the Department of Ecology.
- How does this depend on time of day, week, and month?
- How can preservation of dense stands of mature forest mitigate noise impacts?
- What other noise sources are expected from the TRC?
- What mitigation options are available for on-site noise? Earth berms? Would those exacerbate flooding?

4. "One weekend a month, ~300 soldiers will use the TRC for their monthly drills."

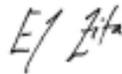
- There appear to be 240 parking spots on the map of the TRC. Will these soldiers be bussed in?
 - How many additional vehicle trips per day are projected during monthly drills?
 - Soldiers are expected to generate significant income at local businesses – therefore they should also be expected to generate significant traffic. Where and how much?
 - How long does a weekend last?
 - We would like to see estimates of peak values for all impacts during monthly drills.
-

Your planning team may benefit from local knowledge of neighbors who have lived here for decades. We call the land proposed for TRC development the "Bunny Property" because of its shape: ears north, and nose east. Todd Hansen was trying to develop it about 10 years ago but had trouble because this is a High Groundwater Hazard Area – it floods. The land between Kimmie St. and I-5 tends to collect water all winter (except during El Nino years like this one). This quadrant of Salmon Creek Drainage Basin no longer drains to Salmon Creek, because some roads act as dikes. The intersection at the bunny's nose (Kimmie and 83rd Ave.) has flooded to such an extent that traffic is restricted some winters.

5. Areas of buildings proposed for construction add up to 147,038 square feet, or about 3.4 acres.
 - a. How much total permeable surface would this development cover, including pavement?
 - b. How many trees would be removed? What species and sizes of trees?
 - c. How much water absorption by trees would be lost? Our hydrologist tells us that mature trees can absorb up to 500 gallons per day.
 - d. How much storm pond area would be required? How do the high groundwater hazard characteristics of this area impact the stormwater design?

6. Significant wildlife activity is observed in our neighborhood forests. You may find Mazama Pocket Gophers in open spaces.
 - a. How much land must be set aside for the gophers? Where is this reserve in your plans?
 - b. What other species are found on the land proposed for development, besides the common ones we noted above? Are any endangered or threatened?

We look forward to working with you to ensure a high quality process and outcome. Thank you for your consideration. Sincerely –



E.J. Zita, PhD
VP, Salmon Creek Basin Neighborhood Association
PO Box 1441, Olympia WA 98507
ejzita@gmail.com 360-705-1559

Appendix 1: Please send all future information regarding this project to:

A: Salmon Creek Basin Neighborhood Association (SCBNA) boardmembers:

E.J. Zita, vice president, ejzita@gmail.com
Patrick Hanratty, President, Hanrat@aol.com,
Karen Kirsch, Secretary, karenbodyofknowledge@gmail.com
Michaela Winkley, Mulford Estates Liaison, michaelaphotography@comcast.net
Tracy Johnson, Treasurer, eshaves@comcast.net

B: all SCBNA residents by mail (including boardmembers, please). Our immediate neighborhood spans:
West to east: Kimmie Street to Armstrong Road/Case Road
North to south: 83rd Ave to 93rd Ave

10. WMD's general response to Dr. Zita and other public meeting participants



STATE OF WASHINGTON
MILITARY DEPARTMENT
Camp Murray • Tacoma, Washington 98430-5000

July 20, 2015

Dear _____,

This letter is to provide a general response to your comments during the recent Washington Military Department's (WMD) Tumwater Readiness Center project scoping meeting. Thank you for letting us know of your comments/suggestions about this proposed project.

We heard your concerns about the traffic, noise, groundwater and other environmental factors associated with this proposed action, and will include those issues in our analysis of environmental impacts. As mentioned during the scoping meeting, the WMD is preparing an Environmental Assessment (EA) for this project.

More details on impact determination regarding traffic, noise, groundwater and other environmental aspects will be presented in the EA. It may take up to a year to produce this environmental documentation, but when ready, we will send you a copy of the draft EA for your review and comment.

Sincerely,

A handwritten signature in cursive script that reads "Rowena Gica".

Rowena Valencia-Gica, Ph.D.
Environmental Specialist

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