FINAL ENVIRONMENTAL ASSESSMENT CENTRAL MAINTENANCE FACILITY RADIO TOWER PROJECT, PIERCE COUNTY

State Homeland Security Grant Program: 2006-GE-T6-0059 (02)

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Prepared For:
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Acronyms and Abbreviations

APE	Area of Potential Affect
AQI	Air Quality Index
ASTM	American Society of Testing & Material
BMPSs	Best Management Practices
CMF	Central Maintenance Facility
DAHP	Department of Archaeological and Historic Preservation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EHP	Environmental Planning and Historical Preservation
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment
EFH	Essential Fish Habitat
FAA	Federal Aviation Administration
FCC	Federal Communications Administration
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
LID	Low Impact Development
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollution Discharge Elimination System
SAA	State Administrative Agency
SHPO	State Historic Preservation Officer
SHSP	State Homeland Security Grant Program
T&Es	Threatened and Endangered Species
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources

1.0 Introduction

The State Administrative Agency (SAA), the Washington Military Department of Emergency Management; on behalf of the Pierce County Department of Public Works and Utilities, applied to the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) State Homeland Security Program (SHSP) for funding assistance with a self supporting communication tower to be constructed at the recently completed Pierce County Public Works and Utilities Central Maintenance Facility (CMF) located at 4812 196th Street East, in Spanaway. The CMF communication tower would improve public safety radio communication in the south end of Pierce County.

The County completed a comprehensive environmental review as part of CMF planning and development, resource information from those evaluations have been used to prepare this Environmental Assessment (EA). The EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations Parts 1500 -1508), and FEMA's regulations implementing NEPA (44 CFR Part 10). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of the EA is to analyze the potential environmental impacts of the proposed CMF radio communication tower. FEMA used the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI).

2.0 Purpose and Need

The purpose of the FEMA – SHSP is to provide funds to build capabilities at the state and local levels and to implement the goals and objectives included in state homeland security strategies and initiatives in their State Preparedness Report. Consistent with the Implementing Recommendations of the 9/11 Act of 2007 (Public Law 110-53) (9/11 Act), states are required to ensure that at least 25 percent of SHSP appropriated funds are dedicated towards law enforcement terrorism prevention-oriented planning, organization, training, exercise, and equipment activities, including those activities which support the development and operation of fusion centers.

In the course of routine and emergency responses, Pierce County has identified several areas of vulnerability with regard to public safety. Among these concerns are a deficiency in public safety radio communications and gaps in interoperability. The gaps in interoperability are expected to become greater once the Federal Communications Commission (FCC) Narrow Banding mandate is implemented in late 2012. After considering these factors as well as studying coverage maps and system parameters, Pierce County was able to identify shortcomings in the communication network.

The need for this action is to provide improved public safety voice and data radio communications and interoperability for first responders locally and regionally during a disaster and/or emergency event.

3.0 Alternative Analysis

This section discusses the alternatives considered in this EA: (1) the No Action Alternative and (2) the Proposed Action Alternative, to which FEMA funding would contribute; and other alternative which are not carried forward.

3.1 No Action Alternative

Under the No Action Alternative, FEMA would not provide funding with regards to the CMF communication tower. This would result in status quo Public Safety radio coverage and would perpetuate the negative communication issues and gaps in interoperability currently experienced by police and fire fighters in Pierce County, mutual aid, and regional emergency response.

3.2 Proposed Action

The Proposed Action would construct a lattice free-standing 250' emergency radio communication tower and associated 360 square foot equipment building at the CMF in two phases. Phase 1 would consist of the 50 foot by 90 foot (4500 square feet total) site preparation, pouring of the cement foundation, installation of the first 160 feet of the steel radio tower with 17 foot antennas at the top of the tower, bringing the total height to 177 feet, installation of the equipment shelter, and a 6-foot chain link fence with locked gate. A maximum of four (4) six-foot diameter high performance microwave dishes will be installed during Phase 1 at the heights of 158 feet and 128 feet. Phase 2 would increase the height of the tower by adding another 73 feet, bringing it to 250 feet in height and will have four (4) more six-foot microwave dishes; two at 248 feet and two at 218 feet in height. Per the Determination of No Hazard to Air Navigation by the Federal Aviation Administration (FAA) no air traffic safety requirements will be required for Phase 1 based on the elevation, location, and description, which includes specific coordinates, heights, frequency (ies), and power. Phase 2 will require future evaluation by the FAA, and will require a Duel Lighting Red/Medium Intensity Flashing White system due to increase in height. The FCC registration number is 1274006 and FCC has no specific tower requirements The tower will be designed to meet Pierce County building codes for seismic area D-1 or D-2 and wind velocity exposure "C". Pierce County considers all of its towers are critical facilities and thus are built to a higher standard because of first responder support.

The CMF is located at 4812 196th Street East, in Spanaway (see Appendix A). The entire CMF site is about 46 acres, which currently consists of four main buildings, A – D. Building A is an office building and houses staff. Buildings B – D are typically used for vehicle storage, maintenance, and dispatch and storage. The installation of this communication tower would greatly improve current public safety radio coverage for police and fire fighters in the southern portion of

Pierce County, fill coverage gaps created by the FCC Narrow Banding mandate, and improve overall public safety and mutual aid interoperable communications regionally and within Pierce County. Staff from the Pierce County Public Works and Utilities Department and Department of Emergency Management would work with private contractors to complete the work required to construct the tower. Appendix A includes a site plan of the CMF facility with proposed radio tower and equipment shelter project limits.

3.3 Alternatives Considered and Dismissed

A number of alternatives to achieve the County stated purpose and need have been evaluated over the past few years, taking into account key emergency management operational factors. No other alternative sites considered were found to address the emergency radio communications needs of Pierce County or the region. For example, one other possible site evaluated for this project was near the intersection of Wa-702 and Mountain Highway E. The site, which lacks utilities and is heavily wooded, is not cost effective due to the additional development costs for land acquisition and installation of utilities. Moreover, the requirement of being Consistent with the Implementing Recommendations of the 9/11 Act of 2007 (Public Law 110-53) (9/11 Act), requires that at least 25 percent of SHSP appropriated funds are dedicated towards law enforcement terrorism prevention-oriented planning, organization, training, exercise, and equipment activities, including those activities which support the development and operation of fusion centers. This greatly restricts consideration of alternatives that do not meet the criteria. In order to comply with the 9/11 Act of 2007 other forms of radio communication were not viable or cost effective.

4.0 Affected Environmental and Environmental Consequences

The table in this section discusses the existing conditions, by resource and potential effects, of the No Action and Proposed Action Alternatives, and mitigation measures to reduce potential adverse effects. Following the table, the affected environment will be briefly characterized along with environmental consequences discussed in greater detail. Effects are categorized as follows:

None/Negligible: The effects of the alternative on environmental resources would either be undetectable or, if detected, would be slight and localized. Impacts would be well below regulatory standards, if applicable.
Minor: The effects of the alternative on environmental resources would be measurable, although the changes would be small and affect only the immediate vicinity where the action would take place. Impacts would be well within regulatory standards.
Moderate: The alternative would have both localized and regional scale impacts. Mitigation measures would be necessary and the measures would reduce potential adverse effects.
Major: The alternative would have substantial consequences on a local and regional level. Impacts would exceed regulatory standards. Mitigation measures

to offset adverse impacts would reduce potential adverse effect, but long-term changes to the resource would be expected.

Table 1 – Summary of Potential Impacts

Resource	Alternative 1 – No Action	Alternative 2 – Proposed Action
Physical Resources, Climate, Air Quality, Geology, and Soils	**None:** There would be no effect as no action would be taken.	**Negligible:** There would be minor impact, such as increased dust during construction.
Water Resources, Wetlands (Executive Order 11990), Floodplains (Executive Order 11988)	**None:** There would be no effect as no action would be taken.	**None/Negligible:** No regulated streams wetlands or buffers have been identified on the project site; the site outside the100 year floodplain. Best Management Practices (BMPs) will be utilized to manage stormwater runoff.
Biological Resources (Vegetation, Wildlife, Essential Fish Habitat, Threatened and Endangered Species, Migratory Birds)	**None:** There would be no effect as no action would be taken.	**Negligible/Minor:** Existing vegetation provides little habitat suitability and there are no streams on or near the site. No state or federal candidate, threatened or endangered plant or animal species or critical habitat has been identified on or near the site. The tower design will minimize adverse effects to migratory birds.
Socioeconomics and Environmental Justice (Executive Order 12898)	**None/Negligible:** There would be no effect as no action would be taken.	**None/Negligible:** The Proposed Action would not pose disproportionately high or adverse public health or environmental effects on minority and low-income populations and would have no adverse economic impacts.
Security	**None/Negligible:** There would be no effect as no action would be taken.	**None/Negligible:** The project site is located within a fenced compound which is continually monitored.
Public Safety	**Moderate:** The alternative would maintain inadequate local and regional scale emergency communication	**Moderate:** The alternative would have both localized and regional scale positive impacts to emergency communication

	capabilities.	capabilities. The tower design includes lighting to minimize air traffic safety concerns.
Hazardous Materials	**None/Negligible:** There would be no effect as no action would be taken.	**None/Negligible:** There are no known hazardous contaminants at the Proposed Action site.

4.1 Physical Resources

4.1.2 Geology and Soils

The Pacific Northwest is seismically active and site could be subject to ground shaking. The proposed tower should be designed to International Building Code 2003 to resist earthquakes per the recommendations in the Landau Geotechnical Review dated 2006. The project site lies southeast of Puyallup, Washington in an area where the topography and soil conditions are strongly influenced by glacial geology. Subsurface deposits consist of recessional outwash, which typically consists of stratified deposits of sand and gravel.

The tower project site soil is classified as Everett gravelly sandy loam with 0-6% slopes. This soil is characterized by rapid permeability, slow surface runoff and little or no erosion. Per the Landau Geotechnical Report, foundation drainage does no need to be provided for uninhabited buildings (equipment shelter). The project area has been recently developed as the CMF and it has no intrinsic value as farm land for agricultural production, but is desirable for industrial sites. Waste from septic drain fields can endanger ground water due to rapid soil permeability, however the CMF site is served by Pierce County sewer.

4.1.2 Air Quality

The 2008 Air Quality Data Summary is the most recent information available for viewing or download on the internet at: www.pscleanair.org/. Pierce County had "good" air quality 81% of the time according to the above website data. The Air Quality Index (AQI) is a nationwide reporting standard developed by EPA for the criteria pollutants. The AQI is used to report daily air quality. "Good" AQI days continued to dominate Pierce County's air quality in 2008.

4.1.3 Climate

Generally, the climate in the Puget Sound Region of Western Washington can be described as having winters that are mild, wet, and cloudy with comparatively dry and cool summers. Variations in temperature, fog, rainfall, and snowfall are due to such factors as distance from the Sound, the rolling terrain and air from over the ocean. Annual precipitation ranges from 35 to 40 inches, with greater amounts occurring with a slight increase in elevation and distance from the sound.

4.1.4 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative no changes to climate, geology, or soils would occur, Pierce County would continue to use its existing emergency communication systems.

Proposed Action

Under the Proposed Action, a minor effect on air quality, geology, and soils would be expected during construction from minor ground disturbing activities that would take place. Best management practices (BMP's) would be utilized for erosion control. Soils excavated to accommodate the foundation of the tower would be stock-piled at another previously disturbed location within the CMF complex and be re-used, in large part, for Pierce County road maintenance activities. The tower is specifically designed to minimize risks of failure during seismic events. There would be a small and temporary increase in vehicle exhaust emissions and fugitive dust during site work and facility construction. The site can be wetted during construction to minimize dust. Federal and state air quality attainment levels would not be expected to be exceeded. The long term adverse effects on air quality, geology, and soils of operating the radio tower are expected to be negligible.

4.2 Water Resources, Wetlands, Floodplains

As described below, the CMF emergency radio tower site is not impacted by water resources, except that it is located within a Pierce County aquifer recharge area.

4.2.1 Wetlands/Floodplains

Executive Orders 11988 (Floodplain Management) and 11990 (Wetlands Protection) require federal agencies to avoid support of floodplain development and destruction of wetlands where practicable alternatives exist. *David Evans and Associates, Inc*. prepared a final Habitat Assessment and Mitigation Status Report for the Pierce County CMF project site and associated street development in November 2008. Initial site evaluations were completed in 2005. The report states there are no streams or wetlands on parcel #0318011003 or immediately adjacent to it, where the proposed 250 foot emergency communication tower project is proposed. The project site is located outside of the 100-year floodplain (Appendix A).

Based on these findings, Pierce County issued a Mitigated Determination of Non-significance on September 6, 2005 as part of it's State Environmental Policy Act (SEPA) review. Listed under the Findings of Fact in for the Pierce County CMF project site is the following:

9. No regulated streams or buffers have been identified on the project site pursuant to Chapter 18E.60 - Fish and Wildlife Habitat Areas, Pierce County Development Regulations - Critical Areas.

4.2.2 Groundwater

Per the Safe Drinking Water Act's Sole Source Aquifer Protection Program, the broad area surrounding the tower site is an aquifer recharge area for the Central Pierce County Aquifer System which is designated a sole source aquifer by the US Environmental Protection Agency. In 2005, Landau Associates performed a Hydrogeologic Assessment of the CMF property in conformance with Chapter 18E.50 Aquifer Recharge and Wellhead Protection Areas. Based on this assessment, the proposed development will not adversely affect groundwater primarily due to the stormwater system design. No mitigation is necessary provided that the stormwater system receives proper maintenance. Thus these would apply to the tower site.

4.2.3 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative no impacts to the water resources, wetlands, or floodplain would occur; as there would be no site work or development.

Proposed Action

Under the Proposed Action no significant impacts would occur because there are no wetlands or regulated streams and/or buffers are located on the project site or immediately adjacent to it and it is outside the 100 year floodplain. Consistent with the Clean Water Act's, National Pollution Discharge Elimination System requirements, during and after construction BMPs will be utilized to manage stormwater runoff through the use of filter fabric fences, and an on-site retention pond. The amount of increased impervious surface from the proposed project is so insignificant it will not result in increased stormwater runoff. Because of the very small scale of the tower footprint, it does not have the potential to contaminate the Central Pierce County Aquifer System and adverse effects to recharge would be negligible.

4.3 Coastal Resources

The state of Washington, through the Department of Ecology, participates in the federal Coastal Zone Management Program, which encourages states to adopt their own management programs in order to meet the goals of protection, restoration, and appropriate development of coastal zone resources. The revised version of the Washington Coastal Zone Management Program document was approved by the National Oceanic and Atmospheric Administration (NOAA) in February, 2001. Pierce County is designated a coastal county by the Washington Department of Ecology. Per the Coastal Zone Management Act federal projects require a coastal zone management plan consistency determination.

4.3.1 Consequences of Alternatives

No Action Alternative

Under the No Action alternative no impacts to the coast or coastal zone would occur because there would be no site work or development.

Proposed Action

Under the Proposed Action no impacts to the coast or coastal zone would occur. Pierce County submitted an application for a Coastal Zone Management Act consistency determination to the Washington State Department of Ecology regarding this project in June of 2010. This project is in compliance with the Washington State Department of Ecology Coastal Zone Management Act requirements.

4.4 Biological Resources

A Final Habitat Assessment and Mitigation Status Report for the construction of the Pierce County Maintenance Facility (CMF) and the Associated 196th Street East connector was prepared by David Evans and Associates in November 2008. Information on sensitive natural resources in the project vicinity were collected from literature from the Washington Department of Natural Resources (WDNR), Washington Department of Fish and Wildlife (WDFW), Pierce County, and other sources including several site visits conducted February, April, and July of 2005 with mitigation monitoring in 2007 and 2008. The overall CMF site encompassed three Assessor's parcels: 0318011009, 0318011003, and 0318011011; totaling 46 acres. The proposed emergency radio telecommunications tower site is within parcel number 0318011003.

4.4.1 Vegetation

David Evans and Associates delineated priority Oregon white oak woodland on the parcel. The report also states there are no streams or wetlands on parcel #0318011003, but that it is primarily covered in grasses due to logging that occurred before 1990 of Douglas fir forest. Generally, Pierce County Code 18E.40.020 (D) requires stands of oaks at least 1 acre in size to be protected as priority habitat. The report goes on to state that construction of the CMF did not remove any significant oak trees from parcel #0318011003. The area where the tower is to be built is limited to herbaceous vegetation since it has been developed.

4.4.2 Wildlife and Fish

The David Evans and Associates report indicates that there were no streams, wetlands or marine shoreline present on the site, therefore no aquatic habitat or fish were present. Given the tower site has been disturbed during the CMF development it has no suitable habitat for terrestrial wildlife. While the project site possesses no habitat value, it is generally within the Pacific Flyway Zone for migratory birds. The tower's siting and design is consistent with US Fish and Wildlife Service's (USFWS) guidelines and recommendations on

communication tower construction, operation, and decommissioning in order to minimize any adverse impacts to migratory birds. The tower will be a self-supporting lattice design without guy wires and will not be required by the FAA to be lit within Phase 1 of the radio communications tower. For Phase 2**,** future changes in coordinates, height, addition of other transmitters and/or frequencies or use of greater power will require will a separate notice to the FAA and incorporating USFWS design guidelines for migratory birds.

4.4.3 Threatened and Endangered Species and Critical Habitat

David Evans and Associates found no threatened or endangered species on the CMF site before its construction. The small area on which the tower would be built has no suitable habitat as it has been developed.

4.4.4 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative no impacts to biological resources would occur because there would be no site work or development.

Proposed Action

Under the Proposed Action the emergency radio telecommunications tower would have negligible impacts to critical habitat, wildlife, and protected species as it is being proposed on a site that was previously developed. Based on the tower's siting and design in Phase I, adverse affects to migratory birds are expected to be minor, consistent with the Migratory Bird Treaty Act's provisions. The County will be required to ensure modification and additional equipment mounted during Phase II also meets USFWS' guidelines to minimize adverse affect on migratory birds. Furthermore, the tower also is available for further collocations. Therefore, the proposed tower would reduce the number of towers in the area.

4.5 Cultural Resources

This section discusses historic properties, cultural resources and tribal interest in the Area of Potential Affect (APE) consistent with Section 106 of the National Historic Preservation Act. A cultural resources evaluation was completed by Western Shores Heritage Services as part of the CMF development in 2006, the proposed tower site was within that APE.

4.5.1 Prehistoric Context

The Washington state archeological record generally begins with the glacial retreat around 9,000 BP. This time frame is characterized by use of a basic suite of stone tools used for a variety of tasks. Settlements were seasonal and occurred along rivers and marine locations. About 3,000 BP, patterns of seasonal residence and logistic mobility can be found in the Puget Sound region. Sites from this period in the Puget Sound history indicate spring and summer fishing and root

gathering campsites and winter village relocations. The majority of archeological sites identified in Western Washington are from this time period. Villages were typically located along rivers or marine transportation routes. Artifacts recovered are representative of everyday uses from basket weaving, to hunting, to fishing.

4.5.2 Historic Context

The project area is located within a region that was occupied by three Coast Salish groups during ethnohistoric times; the Nisqually, the Steilacoom and the Puyallup. Smith (1940) identified over 30 principal villages in the Puyallup-Nisqually territory, three of which are within 5-miles of the project site. None of these villages borders on the project area, but the close proximity to the proposed project suggests general use of the vicinity for transportation and/or resource gathering. According to the US National Park Service (2010), tribes with ancestral interests in the project region include the Yakama Nation; and Muckleshoot, Puyallup, Cowlitz, Steilacoom, and Nisqually Tribes; and Confederated Tribes of the Colville Reservation. Tribes were provided opportunity for comment as part of the public involvement process of the draft EA.

In 1833 the Hudson Bay Company brought the first Euro-American settlers and established Fort Nisqually. In 1850, the federal government enacted the Oregon Donation Land Act, which was responsible for enticing settlers to the area with free land (320 acres). Additional information regarding historic settlement pattern can be found in the Western Shores report.

4.5.3 Historic Properties

No historic properties are listed at or immediately adjacent to the tower project site under the Pierce County Register of Cultural Resources, nor are any listed at the Washington State level with the Department of Archaeology & Historic Preservation (DAHP). The cultural resources survey of the CMF site resulted in no historic properties identified on or immediately adjacent to the tower location.

4.5.4 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative no impacts to cultural resources would occur because no site work or development would occur.

Proposed Action

Under the Proposed Action because of past disturbance and no known listed historic properties with resource agencies, a 'no historic properties affected' determination has been made. Furthermore, Pierce County coordinated with DAHP during development of the CMF (see Appendix B).

4.6 Socioeconomics

4.6.1 Environmental Justice

Executive Order 12898, Environmental Justice requires federal agencies to avoid highly disproportionate and adverse environmental and economic effects to minority and low income populations. The below table provides recent demographic statistics for Pierce County.

PIERCE

	Amount	Rank
Population – 2009	813,600	2
Unincorporated	382,115	1
Incorporated	431,485	2
Land Area in Sq. Mi.	1,678.91	23
Density *Pop./Sq. Mi.*	484.6	4
Assessed Value – 2008		
Total *$ In Thousands*	$92,778,440	3
Per Capita *$/Person*	$115,195	16
Personal Income – 2007		
Total *$ In Thousands*	$28,949,941	2
Per Capita *$/Person*	$37,446	7

County Seat - Tacoma

Taxable Retail Sales – See Table LT01

POPULATION AS OF APRIL 1, 2009

Components of Pop. Change 2000 to 2009	
Estimated Births	95,584
Estimated Deaths	49,303
Natural Increase	46,281
Net Migration	66,501
Total Pop. Change	112,782
Marriages in 2008	5,844
Per 1,000 Pop.	7.26
Divorces in 2008	2,582
Per 1,000 Pop.	3.21

City/Town	Population[a]	City/Town	Population[a]
Auburn *part*	6,665	Milton *part*	5,705
Bonney Lake	16,500	Orting	6,135
Buckley	4,635	Pacific *part*	90
Carbonado	650 +	Puyallup	38,690
DuPont	7,650	Roy	870
Eatonville	2,405	Ruston	765
Edgewood	9,615	South Prairie	440
Enumclaw *part*	0	Steilacoom	6,285
Fife	7,610	Sumner	9,085
Fircrest	6,325	Tacoma	203,400
Gig Harbor	7,165	University Place	31,500
Lakewood	58,840	Wilkeson	460

APRIL POPULATION BY RACE AND HISPANIC ORIGIN BY CENSUS BUREAU DEFINITIONS

Year	Total	White	Black	AIAN	Asian	NHOPI	Two or More Races	Hispanic Origin
2000	700,820	568,034	50,316	10,322	36,744	6,092	29,312	38,621
2008	805,400	635,884	61,286	12,333	50,083	8,303	37,510	54,952

AIAN: American Indian and Alaska Native; NHOPI: Native Hawaiian and Other Pacific Islander.

Note: Persons of Hispanic Origin can be of any race.

COUNTY POPULATION BY AGE AND SEX--APRIL 1, 2009

Age	Total	Male	Female	Age	Total	Male	Female
0-4	57,151	29,228	27,923	50-54	56,349	27,930	28,419
5-9	55,857	28,641	27,215	55-59	51,131	25,031	26,100
10-14	56,583	28,981	27,601	60-64	41,539	19,918	21,621
15-19	59,777	30,560	29,217	65-69	29,969	14,460	15,510
20-24	60,135	31,127	29,008	70-74	20,438	9,380	11,058
25-29	58,970	30,227	28,743	75-79	14,955	6,402	8,553
30-34	53,934	27,250	26,684	80-84	11,598	4,672	6,926
35-39	57,648	29,511	28,136	85+	12,534	3,968	8,566
40-44	56,635	28,651	27,984	Total	813,600	405,168	408,432
45-49	58,399	29,230	29,169	Median Age	35.38	34.37	36.39

Note: Data may not add due to rounding. See footnotes. Footnote symbol meanings differ by section.

Consequences of Alternatives

No Action Alternative

Under the No Action Alternative, minority and low income populations would be equally affected as Pierce County's general population. Adverse effects to Pierce County residents could be serious as a result of the lack of or limited radio communication available to first responders when assisting the public in a major crisis or disaster situation.

Proposed Action

Under the proposed action, minority and low income populations in Pierce County would equally benefit from improved emergency communications capabilities in a major crisis or disaster situation. No effects to minority or low income populations would occur as a result of the tower siting because of its location within the CMF 46 ac complex.

4.6.2 Noise

The ambient noise levels around the CMF where the tower is proposed could be characterized as quiet. Radio communication towers and their equipment are subject to Chapter 8.76 Noise Pollution Control of the Pierce County Code, although no sirens are currently planned for the CMF tower. The following outlines the exemption from Section 8.76.070:

> #6. "Sounds created by emergency equipment and work necessary in the interests of law enforcement or for the health, safety or welfare of the community."

Consequences of Alternatives

No Action Alternative

Under the No Action Alternative, there would be no noise concerns because there would be no site work or development.

Proposed Action

Because the tower is sited within the CMF and is well buffered by open space, adverse affects to surrounding residential neighborhoods from a temporary increase in ambient noise levels during construction would be negligible. No increases in ambient noise levels are expected from equipment operation that will be mounted on the tower.

4.6.3 Public Services and Utilities

The proposed site already has public services and utilities including water, electric, public sewer, and gas. Therefore, the project will have no significant impact on public utilities.

4.7 Public Safety and Security

In the course of routine and emergency responses, Pierce County has identified several areas of vulnerability with regard to public safety. Among these concerns are a deficiency in public safety radio communications and gaps in interoperability. The gaps in interoperability are expected to become greater once the FCC Narrow Banding mandate is implemented in late 2012. After considering these factors as well as studying coverage maps and system parameters, Pierce County was able to identify shortcomings in the communication network.

4.7.1 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative the status quo of poor quality transmissions and gaps in radio communication between and to first responders would persist. This would result in moderate negative impacts to public safety and security by jeopardizing lives and property of Pierce County citizens and the people who serve them.

Proposed Action

The Proposed Action would provide improved public safety voice and data radio communications and interoperability for responders locally and regionally during disasters, emergencies, and day to day operations will enhance public safety and security. Thus the proposed action's focus on prevention, protection and saving lives and property would result in moderate benefits.

4.8 Hazardous Materials

Landau Associates produced a Focused Phase 1 Environmental Site Assessment (ESA) of the subject property in 2005 in conformance with the scope and limitations of the American Society of Testing & Material (ASTM) practice in effect in Pierce County. This evaluation was completed as part of the CMF development, and evaluated potential environmental liabilities on the property. The focused Phase 1 ESA did not include services related to radon, lead in drinking water, wetlands, or indoor air quality. The summary and recommendations in the report did not indicate any significant adverse environmental conditions on the property.

4.8.1 Consequences of Alternatives

No Action Alternative

Under the No Action Alternative there would be no concerns related to hazardous materials as no site work or development would occur.

Proposed Action

Under the Proposed Action the activity taking place would have no concerns related to hazardous materials since no environmental conditions were identified.

5.0 Cumulative Effects

Cumulative effects are those that result from the incremental effect of a Proposed Action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other action. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time. There are no known on-going or planned projects in the vicinity of the proposed project site. Therefore, no adverse cumulative impacts are anticipated from construction and operation of the emergency radio communication tower.

As emergency communication capabilities are incrementally improved throughout the region, multiple jurisdictions would benefit from improved interoperability by reducing the gaps in communication coverage. Pierce County's ability to deliver essential services in the event of an emergency would be enhanced. Thus this project would contribute to cumulative benefits to the region's emergency communications infrastructure.

6.0 Public Involvement

Pierce County requires public involvement as part of its permit actions and thus notice will be completed for the proposed communications tower. A public notice matrix in Chapter 18.80 of the Pierce County Code explains when and under what circumstances public notices are required. They include a Notice of Application that is sent to neighboring parcels; public hearing notice published in the newspaper of the project before their local community Land Use Advisory Commission, and also the public hearing before the Hearing Examiner.

Furthermore, FEMA required public notice for the draft EA. The public had the opportunity to comment on the EA for 30 days after the publication of the notice (see Appendix C). The notice identified the action, location of the proposed site, participants, location of the draft EA, and who to write to provide comments. The only comments received were from the Washington Department of Ecology regarding potential project permitting needs, this required no change to the EA.

7.0 Required Permits & Compliance

Activities at the Proposed Action project area would be conducted in accordance with applicable local, state, and federal regulations. The County would be responsible for acquiring any necessary permits prior to commencing construction at the proposed project site. Because the tower site is already developed within the CMF, the only additional permits required are as follows from Pierce County: Pierce County Conditional Use Permit (CP) including conditions of approval, Pierce County Administrative Design Review (ADR), Pierce County Site Development & Building Permits and State Environmental Policy Act (SEPA)A Coastal Zone Management Act consistency determination.The following federal reviews are required for the project: FAA review of tower design and FCC licensing and tower registration

8.0 Conclusion

Pierce County has identified several areas of vulnerability with regard to public safety. Among these concerns are a deficiency in public safety radio communications and gaps in interoperability. The installation of this communication tower would greatly improve current public safety radio coverage for police and fire fighters in the southern portion of Pierce County and fill coverage gaps expected to be created by the FCC Narrow Banding mandate. Based on the evaluation in this EA, no significant environmental impacts were identified.

9.0 Consultation and References

The following agencies and organizations have been or will be contacted for consultation or comment prior to implementing the Proposed Action:

Washington State Department of Archaeology & Historic Preservation
Washington Department of Ecology
Nisqually Indian Tribe
Puyallup Indian Tribe
Muckleshoot Indian Tribe
Steilacoom Indian Tribe
Yakama Nation
Confederated Tribes of the Colville Reservation
Pierce County Planning and Land Services
Federal Communication Commission
Federal Aviation Administration
US Fish and Wildlife Service
US Environmental Proection Agency

References:

Landau Associates, Inc. 2005 *Focused Phase 1 Environmental Site Assessment Pierce County Combined Maintenance Facility.* February

Landau Associates, Inc. 2005 *Hydrogeologic Assessment Pierce County Combined Maintenance Facility.* July

David Evans and Associates, Inc. 2005 *Habitat assessment Report for the 196th Street NE Connector Associated with the Pierce County Combined Maintenance Facility.* August

David Evans and Associates, Inc. 2008 *Final Habitat Assessment Report for the 196th Street NE Connector Associated with the Pierce County Combined Maintenance Facility.* November

Landau Associates, Inc. 2006 *Revised Geotechnical Report Pierce County Combined Maintenance Facility.* January

Office of Financial Management.
http://www.ofm.wa.gov/databook/county/pier.pdf

Pierce County CountyView GIS website:
http://shasta5.co.pierce.wa.us/imf/imf.jsp?site=prc

Puget Sound Clean Air Agency. 2010. Pierce County air quality data. Website: www.pscleanair.org/. April.

Soil Survey of Pierce County Area, Washington. United States Department of Agriculture Soil Conservation Service 1979. February

State of Washington Department of Archeology & Historic Preservation, correspondence dated April 24, 2006, Log # 042406-20-PI.

US Fish and Wildlife Service. 2000. *Guidance on the Siting, Construction, Operation, and Decommissioning of Communication Towers.* September.

US Fish and Wildlife Service. 2010. Pacific Flyway for migratory birds. Website: http://www.pacificflyway.gov/Documents/Pacific_map.pdf. April.

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Western Shore Heritage Services, Inc. 2006 *Cultural Resources Assessment for the 196th Street East Extension and Central Maintenance Facility.* March.

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11.0 Appendices

11.1 Appendix A

11.1A Vicinity Map
11.1B Ortho View of CMF Project Site
11.1C Project Limits within CMF Site
11.1D Communications Site Detail
11.1E Radio Tower Elevations
11.1F Radio Tower Photo Simulation (from north to south)
11.1 G Pierce County Flood Plain Map

11.2 Appendix B

11.2A FAA Determination of No Hazard to Air Navigation, 2010-ANM-679-OE
11.2B Department of Archaeology & Historic Preservation Letter dated Aril 24, 2006, Log # 042406-20-PI
11.2B FCC Antenna Structure Registration Number Communication, #1274006

11.3 Appendix C

11.3A Public Notice-Federal Emergency Management Agency