Draft Environmental Assessment

Wahkiakum County Fire District No. 3
Grays River Fire Station Relocation

FEMA-1817-DR-WA

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FEMA

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FEMA Region X
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ACRONYMS

ACM – Asbestos Containing Material

CEQ – Council on Environmental Quality

CFR – Code of Federal Regulations

DAP – Disaster Assistance Policy

DAHP – Washington State Department of Archaeology and Historic Preservation

EA – Environmental Assessment

EIS – Environmental Impact Statement

EMD – Washington State Emergency Management Division

EO – Executive Order

FEMA –Federal Emergency Management Agency

FONSI – Finding of No Significant Impact

LBP – Lead Based Paint

NEPA – National Environmental Policy Act

NHPA – National Historic Preservation Act

NMFS – National Marine Fisheries Service

NOAA – National Oceanic and Atmospheric Administration

SHPO – State Historic Preservation Office

SWCAA – Southwest Clean Air Agency

USFWS – U.S. Fish and Wildlife Service

WDFW – Washington State Department of Fish and Wildlife

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1.0 INTRODUCTION

In early January 2009, heavy rain and melting snow throughout Wahkiakum County resulted in flooding of Grays River. The lower floor of the Wahkiakum Fire Station #3 fire hall was submerged to a depth of 54 inches. A structural evaluation of the two-story wood structure following the flooding showed that the building is out of plum and leaning to the west, sheathing panels and door trim has pulled away from the walls, rollup doors are out of their tracks, the concrete floor and stem wall sustained serious cracks, and the electrical system has serious water damage. Inspectors determined the building to be unsafe for occupancy based on weakened structural integrity, saturated supporting soils and fill, and the possibility that additional shear force could cause catastrophic collapse of the building.

Wahkiakum County Fire Protection District #3 has applied through the Washington State Emergency Management Division (EMD) to the Federal Emergency Management Agency (FEMA) for funding to relocate the building to a nearby site about 1,300 feet north of the existing site. Relocation of the building was determined to be cost effective because of repetitive flooding at the existing site and the County requirement to elevate the structure 3 feet above the 54-inch high water mark (FEMA, 2009).

This draft Environmental Assessment (EA) has been prepared to assist FEMA in meeting its environmental review responsibilities under the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality's (CEQ) implementing regulations (40 CFR Parts 1500 through 1508), and FEMA's implementing regulations (40 CFR Part 10). FEMA is also using the draft EA to document compliance with other applicable federal laws and executive orders, including the Clean Air Act (CAA), Clean Water Act (CWA), the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), Executive Order (EO) 11988 (Floodplains), EO 11990 (Wetlands), and EO 12898 (Environmental Justice). This EA is prepared in accordance with FEMA Implementing Procedures, 44 CFR § 10.8(e), that "When a proposal is not one that normally requires an environmental impact statement and does not qualify as a categorical exclusion, the Regional Director shall prepare an environmental assessment."

This draft EA is limited to evaluation of potential environmental impacts of construction and operation of the new facility at the new site. It includes demolition of the existing structure at existing site but does not include the District's negotiated trade of land at the old site for the proposed new building site.

FEMA will use the findings in this draft EA and resulting public comments to determine whether to prepare an Environmental Impact Statement (EIS). If the action is determined not to significantly affect the quality of the human and natural environments, then FEMA will make a Finding of No Significant Impact (FONSI), and that preparation of an EIS is not warranted.

This document discusses the purpose and need for the Proposed Action, the project alternatives, the affected environment and potential impacts to that environment resulting from the alternatives, cumulative effects, public involvement, and resources consulted.

2.0 BACKGROUND

The Wahkiakum County Fire Protection District #3 is located in Grays River, Washington. District #3 provides fire protection and emergency medical service (EMS) to a population of approximately 1,200

residents over a 40 square mile service area in western Wahkiakum County. It is an all volunteer department with a total of 38 volunteer personnel (as of December 2009). Equipment includes a single fire engine, a rescue vehicle, and an ambulance.

Existing Facility

The existing Fire District #3 Station is a two-story structure located at 3751 SR 4W in Grays River, Washington. It is bounded on the north by SR 4, on the east and west by small parcels fronting on SR 4, and on the south by a seasonal creek. Adjacent land uses include SR 4 and agricultural land to the north, residential / commercial uses to the east, west, and south.

The building faces north and appears to be between 30 and 50 years old (Cascade Engineering, Inc., 2009). It is conventionally-framed, constructed on concrete stem walls with a slab-on-grade first floor. Each floor measures approximately 36 feet by 60 feet for a total gross area of approximately 4,320 square feet. Two large rollup doors are located on the north side of the building, opening onto SR 4.

Flood Damage

The building lies within the 100-year flood zone (FIRM Panel No. 5301930005B, 9/28/1990) and has experienced repetitive damage from four flood events in the last eight years. The depths of flood waters (measured from the first floor slab) were as follows: 2001-33.5", 2006-34.5", 2007-43.5", and 2009-54".

Following the 2009 flood event, a structural inspection of flood damage was conducted for the facility (Cascade Engineering, Inc., 2009). Major damage to the structure included:

- The lateral force of the flood waters shifted the entire building; both floors sustained residual shear deformation; structure is out of plumb, leaning to the west; the north wall is also out of plumb.
- Saturation of soils and fill beneath the structure resulted in cracks and settling of the concrete slab (up to 3 inches) and stem wall and outward rotation of the stem wall.
- Electrical systems on the first floor sustained substantial water damage.
- Major water damage to interior and exterior walls including drywall, siding, framing, insulation and vapor barriers.
- Substantial water damage to doors, frames, cabinets, countertops, etc. on first floor.
- Damage to first floor restroom, shower, drains, and septic system.

The total amount of loss was estimated at approximately 59% of fair market value (Wahkiakum County, 2009). Wahkiakum County (2009a, b) determined that the 2009 flood event resulted in "Substantial Damage" to the structure as defined in Wahkiakum County Flood Damage Prevention Ordinance # 142-06.

The Cascade Engineering, Inc. report (2009) concluded: "While the building is … safe for temporary occupancy, the inadequate piers in their weakened state are cause for significant concern for the structural integrity of the building. If the piers experience significant shear forces again in the future, from a seismic, wind or flood event, they could collapse suddenly and catastrophically, leading to the complete collapse of the entire building." Because the structure is considered unsafe, the District has effectively abandoned the fire hall, dispersing District vehicles and equipment to the residences of volunteers throughout the service area.

3.0 PURPOSE AND NEED

Under the Stafford Act (42 U.S.C. § 5121 – 5207), the purpose of FEMA's Public Assistance (PA) program is to provide financial assistance to local, state, and tribal governments to restore critical infrastructure damaged in a Presidentially-declared disaster. The purpose of this project is to provide funds to Wahkiakum County Fire Protection District No. 3 to replace or relocate the Grays River fire hall, which was severely damaged during the flood event that occurred during the January 6 through 16, 2009 period.

Because of the extensive damage to the building (repairs exceed more than 50% of replacement cost), the total replacement cost of Fire Station No. 3 is eligible for FEMA funding (Disaster Assistance Policy (DAP) 9524.4). Permanent relocation of the building to another site is also eligible for funding because of frequent flooding and repetitive loss at the existing site and the County requirement to elevate the structure 3 feet above the 54-inch high water mark (DAP 9580.102). Relocation of the building is a cost-effective alternative to reconstruction/repair of the existing building at the existing site.

Wahkiakum County Fire Protection District No. 3 is responsible for ensuring the health and safety of its residents by providing critical services, including fire protection and emergency medical (EMS) services. Fire Protection District No. 3 provides these critical services to the Grays River community, with a service area of approximately 40 square miles that covers approximately 1,200 residents. The need of the Proposed Action is to restore District No. 3 facilities to efficient operating condition in order to provide necessary services to the Grays River community and to alleviate repetitive losses from flooding at the existing site.

4.0 LOCATION

The existing fire hall site is approximately ½ acre in size and is located on the south side of SR 4 in Grays River. It is bounded on the north by SR 4, on the east by a residential property, on the south by an unnamed stream, and on the west by an undeveloped parcel.

The new site is approximately one acre in size and is located on the east side of Hull Creek Road, approximately 300 feet north of the SR 4 / Hull Creek Road intersection **(**see Appendix A Site Information). The site is bounded on the west by Hull Creek Road, on the south by several parcels of residential and commercial land that front on SR 4, on the northeast by a seasonal creek, and on the east by a large parcel. Adjacent land uses consist of forest land across Hull Creek Road to the west, the seasonal creek and pasture land to the northeast and east, and commercial/residential uses to the south.

The existing and proposed sites are in the southwest quarter of the southeast quarter of Section 12, Township 10 North, Range 8 West, Willamette Meridian.

5.0 ALTERNATIVES

ALTERNATIVE ANALYSIS

District No. 3 provides fire and EMS services to a resident population of approximately 1,200 people over a service area of approximately 40 square miles. The District operates three fire halls, one at Grays River, one at Skamokawa, and one at Raistakka Road. The existing fire hall at Grays River has served the Grays River community since the 1960s.

Recurring flood damage over the last ten years prompted the District to explore alternative sites for a new fire hall. The urgency of this effort increased following the flood event of 2009 and, subsequently, the County's requirement that the fire hall be elevated above the floodplain or be relocated outside the floodplain. Specifically, the County required that the existing structure be elevated 3 feet above the highest flood of record (54 inches on the first floor slab in 2009) as part of any repair or replacement, or be relocated outside the floodplain.

Because of the damage to the fire hall, the District determined it to be unusable and, on a temporary basis, dispersed District vehicles and equipment to the residences of District volunteers. This action was intended to be a temporary measure until the existing fire hall could be repaired / replaced or a new fire hall constructed at a different site. This alternative is the basis of the No Action Alternative.

On-Site

Repair

The first alternative evaluated by the District following the flood was repair of the existing structure at the current elevation. After a damage inspection study was completed, an engineering study was conducted that indicated repair of the existing structure was possible. However, repair of the existing structure would not meet the County's requirement that that structure be elevated 3 feet above the high water mark. Further, the structure would continue to be subject to recurring flooding.

Replacement

This alternative involves demolition of the existing structure and its replacement including elevation of the structure as required by the County. An engineering evaluation indicated that, because of the small size of the existing site, the required pad area (including sideslopes) required to elevate the structure (7 1/2 feet) would place severe constraints on the movement of District vehicles to and from SR 4. This alternative would elevate the structure above the floodplain.

New Site

At the same time, the District was also evaluating the possibility of relocating the fire hall to a new site. Although the site selection process was informal in nature, several criteria were important as the process progressed:

- Floodplain. The primary driver for a new site is to relocate the fire hall outside the floodplain. As a "Critical Facility," the new site must be located outside the 100-year and 500-year flood zones. A "Critical Facility" is one "…for which even a slight chance of flooding might be too great."(Wahkiakum County, 2009 a,b).

- Response Time. Historically, the District has selected sites for its fire halls that optimize (minimize) response times for its residents and businesses. This has resulted in fire hall locations within established communities in order to expedite emergency response. Beyond safety considerations, response times can be an important factor with insurance coverage for residences and businesses.

- Access to SR 4. SR 4 is the principal transportation facility within the District's service area and provides a critical route for travel to emergency locations throughout the District. A new station needs to be located on, or have easy access to SR 4.

- Site Constraints. A new site needs to be of sufficient size that it can easily accommodate the movements of District vehicles and equipment, as well as provide parking for volunteers and visitors.

- Volunteers. The exiting Grays River fire hall is an all-volunteer department. As far as possible, any new site should be conveniently located for volunteers traveling to the fire hall from a variety of locations throughout the District service area.

- Cost. Cost is an important consideration for a small entity such as Fire District No. 3.

As it began its search for a new fire hall site, the District determined that it was important to find a new site within the Grays River community. The District has been an important part of the community for many years and provides needed fire and EMS service with relatively rapid response times. Relocating the fire hall to the east or west along SR 4 away from Grays River would reduce existing levels of service.

The requirement to elevate or relocate a new fire hall outside the floodplain effectively eliminated possible sites in Grays River south of SR 4, most of which are located within the 100-year floodplain. Similarly, potential sites north of SR 4 located within the floodplain were eliminated from consideration.

Early in the site selection process, the District began to look at potential sites north of SR 4 along Hull Creek Road and the Hull Creek Valley. Large portions of this valley had long been cleared for agriculture, primarily pasture. There were a number of locations that appeared to meet the criteria described above, foremost among them a location outside the floodplain.

The District initiated discussions with landowners regarding the availability of land in the valley. These discussions led to the possibility of a new site on the south side of Hull Road, several hundred feet north of its intersection with SR 4 and about 700 feet northwest of the existing fire hall. This one-acre site is above the 500-year floodplain. The District would obtain the site through a property trade for the existing fire hall site. Currently, the potential landowner has no plans for the new site.

ALTERNATIVES EVALUATED IN THIS EA

NEPA requires the evaluation of reasonable project alternatives as part of the environmental review process. This draft EA evaluates two alternatives. Alternative 1 is the No Action Alternative, which serves as the baseline by which other alternatives can be compared. Alternative 2, the proposed action, is relocation of the fire hall outside the floodplain. The Executive Order 11988 Floodplain Management and FEMA Regulations (44 CFR Part 9) require selection of a location outside the floodplain if it is practicable. Thus, only two alternatives will be evaluated.

Alternative 1. No Action

Under this alternative, FEMA would not provide to the District for repair / replacement of the existing fire hall. Because the existing fire hall is considered unsafe for use, the District would continue to operate with vehicles and equipment dispersed at the residences of volunteers throughout the service area. The dispersal of vehicles and equipment would compromise the District's capabilities (increased response times, reduced levels of service) to provide needed services to its residents.

In the absence of any repairs, the existing fire hall would continue to deteriorate and would continue to be subject to recurrent flood events. As an effectively abandoned, structurally unsound building, the damaged fire hall may present a hazard to the community and may be subject to vandalism.

Further, the No Action alternative would not meet the County requirement to elevate the structure 3 feet above the high water mark of 54 inches or to relocate the fire hall outside the floodplain (Wahkiakum County Building and Planning Department, 2009).

Alternative 2. Relocation of the Fire Station Outside the Floodplain

Under this alternative, a new fire station would be constructed at a new location outside the floodplain. The proposed site is located on Hull Road, approximately ¼ mile from the existing facility. Permanent relocation is consistent with FEMA policy 9580.102 because of the potential for repetitive loss at its existing location. Relocation would also be consistent with the County's requirement to either relocate the fire station or to elevate the existing fire station approximately 7 feet above current grade. Floodplain evaluation has shown the new site to be outside the 500-year floodplain, a requirement for "Critical Facilities" such as fire stations, for which even a slight change in flooding may be too great."

The new fire station will be a single story 4,400 square foot (sf) structure on a 43,560 sf (1.0 acre) site off Hull Road. It will be 21.5 feet in height. There will be four vehicle bays with rollup doors facing south. The interior will include a multi-purpose area, two baths with showers, a kitchen, main floor storage area, and storage loft. The building will be sprinklered and provided with fire alarms. Utilities will include a pressurized on-site septic system, water and electrical service from the P.U.D., a new hydrant, propane tank and generator, and a storm drainage system. Vehicle bays open onto a 36 ft by 80 ft concrete apron, which is surrounded by a larger asphalt parking area. There will be a total of 8 parking spaces, one of which is wheel-chair accessible. From Hull Road, access is provided by a 50 ft wide, asphalt entrance way. Highway signage identifying the fire station will be provided on Hull Road both north and south of the new facility. (See Appendix A Site Information)

The new fire station will continue to provide fire protection and EMS services, but the new facility may also be used as a local emergency operations center (EOC) and temporary warming shelter during emergencies.

The existing fire station would be demolished and the site cleared.

This alternative would meet the County's requirement to relocate the structure outside the floodplain (or elevate the station above the floodplain) and would minimize the potential for repetitive flooding.

6.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section of the EA briefly describes the natural and human environments within and surrounding the project area, and compares alternatives based on their projected impacts on environmental resources. The proposed site was graded and crushed rock placed on most of the site approximately two years ago. Prior to that, the site had been used as pasture.

Table 1 shows the intensities of environmental effects for Alternatives 1, 2, and 3. These intensities are categorized as follows:

- **None**: There would be no effects on environmental resources.
- **Negligible**: The effects on environmental resources would be either undetectable or if detected, would have effects that would be slight and localized. Any impacts would be well below regulatory standards as applicable.
- **Minor**: The effects on environmental resources would be measurable, although the changes would be small and localized. Impacts would be well within regulatory standards as applicable. Mitigation measures would reduce any potential environmental effects.
- **Moderate**: The alternative would have both localized and regional scale impacts. Mitigation measures would be necessary and the measures would reduce potential adverse impacts.
- **Major**: The alternative would have substantial consequences on a local and regional level. Impacts would exceed regulatory standards. Mitigation measures to offset adverse impacts expected.

Table 1. Environmental Impact and Intensity by Alternative (1 or 2)

Environmental Resource (Law or EO)	None / Negligible	Minor	Moderate	Major
Clean Air Act (air quality)	1,2			
Clean Water Act (water quality)	1,2			
Environmental Justice (EO 12898)	1,2			
Floodplains (EO 11988)	2			1
Wetlands (EO 11990)	1,2			
Endangered Species Act (threatened & endangered Species	1,2			
Public Safety	2		1	
Hazardous Materials and Toxics	1,2			

PHYSICAL RESOURCES

AIR QUALITY

Affected Environment

Air quality in the Grays River community and western Wahkiakum County is generally good by virtue of its rural setting. Emissions in the area are typically generated by motor vehicles, wood stoves, recreational vehicles and outdoor burning. District No. 3 emissions typically consist of those associated with District vehicles and motor vehicles owned by volunteers.

Grays River and Wahkiakum County are located within the jurisdiction of the Southwest Clean Air Agency.

Environmental Consequences

Alternative 1 - No Action

There would be no construction or demolition activities associated with this alternative. Current dispersion of existing resources require additional mobilization time resulting in slight increase in emissions. However, the impacts would be negligible.

Alternative 2 - Relocation of Fire Hall at New Site

Construction and operation of the new fire hall are not expected to result in any air quality-related impacts. Depending on season, construction activities may generate minor amounts of dust and equipment-related emissions. These emissions would be temporary in nature and would not be consequential. Operation of the new facility would result in minor emissions from vehicles and equipment, however, these would be of similar magnitude and frequency as those that occur at the present time at the existing fire hall. There will be no net increase in operational emissions.

Because of the age of the existing fire hall, asbestos-containing material (ACM) may be present in structural materials. In older structures, asbestos may be present in flooring, ceiling tiles, siding, insulation and a variety of other building materials. If the presence of these materials is suspected, the Southwest Clean Air Agency (SWCAA) should be contacted prior to demolition. It is possible that a pre-demolition inspection of the fire hall will be required under Asbestos Regulation 476 (SWCAA, 2008). The results of this inspection would determine the appropriate means for disposal of any ACM materials present. Overall, in terms of asbestos, demolition would not present any unusual issues, and no asbestos-related impacts are expected.

HAZARDOUS MATERIALS AND TOXIC WASTES

Affected Environment

Because of the age of the existing fire hall, lead-based paint (LBP) may be present in the structure. Lead-based paint (LBP) was widely used until 1978. No other hazardous or toxic materials or equipment (e.g. underground storage tanks) are thought to be present on the existing fire hall site (Strong, personal communication, 2009).

The proposed site for the new fire hall was formerly pasture land. There are no indications of any hazardous or toxic materials present.

Environmental Consequences

Alternative 1 – No Action

Under the No Action Alternative, there would be no new construction or demolition activities. The existing fire station would continue to deteriorate and eventually be torn down due to safety concerns. Until removal of the structure, the continued deterioration would provide a potential waste stream of lead based paint (if present) at the site and eventually the Grays River during future flood events.

Alternative 2 - Relocation of Fire Hall at New Site

Construction of the new fire hall at the Hull Creek Road site is not expected to result in any hazardous materials or toxic waste-related impacts. The site was historically used as pasture and there are no know hazardous materials or toxic wastes known to be present on the site. The new fire hall will be constructed in compliance with applicable Wahkiakum County building codes and standards relating to building materials (Wahkiakum County, 2009). This will include design of the propane tank and generator located on the north side of the new structure (See plans in Appendix A Site Information).

If lead-based paint is determined to be present in the existing fire hall, Wahkiakum County Public Health shall be contacted prior to demolition to determine the level of concern and appropriate means for demolition and disposal of demolition debris. Generally, with whole building demolition, LBP is less likely to be a concern because of the small ratio of lead paint to the total waste mass (US EPA, 1993). Overall, any lead-based paint present in the existing fire hall should not present any unusual problems with regard to demolition and only negligible LBP-related impacts are expected.

WATER RESOURCES

FLOODPLAINS (EO 11988)

Affected Environment

The existing fire hall is located within a FEMA flood plain risk zone designation "Zone A no BFE" according to Flood Insurance Rate Map (FIRM) No. 530193B dated September 28, 1990 (FEMA, 1990). This designation describes Special Flood Hazard Areas inundated by the 100-year flood, but that base flood elevations (BFE) are not determined. No information is provided for 500 year flood zones. Additionally the hydrologic information for the area is sparse.

The existing fire hall has experienced severe flooding on several occasions. Most recently, flood events in 2001, 2006, 2007, and 2009 resulted in floodwater elevations on the 1st floor slab of 33.5, 34.5, 43.5 and 54 inches, respectively. The fire hall is also considered a "Critical Facility" defined as one "…for which even a slight chance of flooding might be too great." As a result, Wahkiakum County Building and Planning Department (2009a, b) has required that a repaired facility would have to be elevated above the flood plain and floodproofed or relocated to a site outside the Special Flood Hazard Area. Specifically, a repaired

structure would have to be elevated 3 feet above the highest flood elevation, 54 inches, or a minimum of 7 ½ feet above the existing concrete slab elevation.

The current floodplain information is approximate in nature. Detailed hydrologic and hydraulic information is not available. FEMA evaluated all available data and determined that the new site is definitely out of the 100 year floodplain and it looks to be 6-7 feet above the 100 year flood elevation. Without more stream discharge information and modeling, the 500 year flood plain cannot be definitively determined. Based upon the amount of Federal investment and the potential flood damage to which it would be subject from various levels of flood risk, including consideration of the elevation difference of the site to the approximate 100 year flood level, and that the site has never flooded before, FEMA determines that the site is not likely in the 500 year floodplain.

Other functions and values associated with the floodplain that have potential impacts are discussed in other sections of this EA.

Environmental Consequences

Alternative 1 – No Action

Under this alternative, there would be no new construction. Operations would continue at current dispersed locations. The existing structure would be subject to future flood events and possibly become debris during an event, due to its deteriorating state. Consequently, there is the potential for major floodplain-related impacts resulting from the No Action Alternative.

Alternative 2 - Relocation of Fire Hall at New Site

The new site was determined to be above the base flood level. Additionally, the site was subjectively determined to be outside the 500 year floodplain. Because a practicable alternative outside the 500 year floodplain exists, FEMA is required, per 44 CFR Part 9.9 to act on that basis. No impacts on the floodplain or from flooding are anticipated at the new site. Additionally, the new location would not promote further occupancy or modification to the floodplain as it is replacing an existing facility in kind.

The demolition of the existing fire station does have the potential to impact the floodplain. By limiting demolition to the none flood season, the impacts would be avoided resulting in no impacts to the floodplain.

WATER QUALITY

Affected Environment

The existing fire hall site and the proposed site are located within the Grays River and Hull Creek watersheds. Grays River, which discharges into the Columbia River, lies several hundred feet south of the existing fire hall. Hull Creek, whose watershed extends northeast of the Grays River community, discharges into Grays River approximately 1,000 feet south of the existing fire hall.

An unnamed seasonal stream runs along the northeast boundary of the new site, turning south under SR 4, and passing along the south side of the existing fire hall site. It then discharges directly into Grays River.

Environmental Consequences

Alternative 1 - No Action

Under this alternative, there would be no excavation and grading at a new site and no new facilities would be constructed. District operations would continue as at the present time. Consequently, no construction-related or long-term impacts on water quality would occur.

Alternative 2 - Relocation of Fire Hall at New Site

Construction is expected to take 6 to 9 months. No in-water work will take place. During this period, it is possible that site runoff could introduce sediments into the adjacent seasonal stream and increase turbidity. However, the contractor will utilize conventional construction measures (e.g. silt fences, hay bales) to control erosion of soils exposed during construction and no construction-related water quality impacts are expected to occur.

A storm drainage system for the new site will be designed and submitted to the Wahkiakum County Building and Planning Department for approval as part of the building permit process. This system will be designed to meet all applicable criteria. The drainage system will be operated and maintained by the District in accordance with County guidelines and no adverse water quality impacts are anticipated.

The new facility will use a pressurized on-site septic system located in the northern portion of the new site **(See Figure __.**). This system will be designed in accordance with Wahkiakum County Public Health's requirements for on-site septic systems. Similarly, the District will operate and maintain the system in accordance with Wahkiakum County Public Health guidelines. No adverse impacts on surface or ground water quality are expected.

BIOLOGICAL RESOURCES

VEGETATION AND WILDLIFE

Affected Environment

The site of the existing fire hall is fully developed with the fire hall and surrounding paved areas for mobilizing District vehicles and parking. Vegetation on the site consists of the drainfield area south of the fire hall and riparian vegetation along the stream on the south side of the site. Riparian vegetation includes willow, alder and cottonwood. A cleared, but undeveloped parcel is located to the west and a residential property is located to the east. Overall, the fire hall site and adjacent properties provide limited habitat for species that are tolerant of human activity. These may include such species as coyote, raccoon, crow, English sparrow, and starlings.

The proposed site for the new fire hall is about one acre in size. Historically, it was a small part of a larger pasture complex that extends north of SR 4 up the Hull Creek Valley. At the present time (January 2010),

most of the site has been graded and crushed rock installed. The extreme northern portion of the site remains in pasture grasses. The riparian vegetation along the seasonal stream that comprises the northeastern boundary of the site remains undisturbed. This riparian vegetation provides valuable a valuable travel corridor and cover for species that might otherwise be exposed in the adjacent pasture land.

Environmental Consequences

Alternative 1 - No Action

No excavation, construction, or demolition would occur under this alternative. Consequently, no impacts on vegetation and wildlife would occur if this alternative were to be implemented.

Alternative 2 - Relocation of Fire Hall at New Site

Any impacts on vegetation and wildlife resulting from this alternative will not be consequential. The project will be designed and constructed in accordance with provisions of the Wahkiakum County Critical Areas Protection Ordinance (No. 131-00).

There will be a conversion of land use from open area to a developed site consisting of a new structure with surrounding impervious surfaces. The area involved will be less than one acre, however, and the loss of habitat and impact on vegetation minor. The riparian corridor along the northeast boundary of the new site will not be altered.

The level of human activity at the site will increase slightly. However, human activity on or near the site has been present for many years and any impacts on wildlife will not be measurable.

THREATENED AND ENDANGERED SPECIES

Affected Environment

Review of resource databases indicates that there are no terrestrial or aquatic wildlife species listed under the Endangered Species Act (ESA) in the immediate vicinity of the project site (Washington Department of Fish and Wildlife, 2009; FEMA, 2009). Grays River, approximately 700 feet to the south, supports several listed salmonids including Chinook, coho, and chum salmon and steelhead trout. Hull Creek, approximately ¼ mile to the south and east, supports listed Chinook and coho salmon and steelhead trout. Both streams are considered essential fish habitat (EFH) for Chinook and coho salmon under the Magnuson-Stevens Fishery and Conservation Act (Magnuson-Stevens Act).

Similarly, no critical habitats for marbled murrelet or northern spotted owl were identified (FEMA, 2009).

Environmental Consequences

Alternative 1 - No Action

Under the No Action Alternative, no construction activities would be conducted nor have any listed species been identified in the vicinity of the existing fire hall. Consequently, no impacts to federally-listed threatened and endangered species would occur, nor would there be any impacts to Essential Fish Habitat (EFH) under the Magnuson-Stevens Act.

Alternative 2 - Relocation of Fire Hall at New Site

Although this alternative will involve site work and construction activities, federally-listed threatened and endangered species or their critical habitat is not present in the action area. This alternative will have no effect on ESA species or habitat. Appropriate construction BMP's would minimize any negligible impacts that have the potential to affect Essential Fish Habitat.

Cultural Resources

Affected Environment

The lower Columbia River valley, including the Grays River vicinity, has been occupied by Native American populations for thousands of years. At the time of European contact (beginning with the Royal Navy in 1792, followed by the Lewis and Clark Expedition in 1805), the residents of the area were speakers of the Chinook language family. They were permanent residents, drawn to the area primarily by the abundance of salmon. A brisk fur trade developed under the auspices of the Hudson's Bay Company in the early nineteenth century, but a combination of effects (decreasing fur prices in general, Native population loss due to smallpox outbreaks) caused this to decline in the 1830s. The land was finally ceded to the United States in 1846.

Wahkiakum County, of which the unincorporated settlement of Grays River is part, was established in 1854, shortly after the organization of the Territory of Columbia (later Washington). The area has been settled and developed for its natural resources, including salmon and timber, since that time.

There are several historic properties located within Grays River. Notable among them are the Grays River Grange, the Grays River Creamery and the Grays River Covered Bridge. The Grays River Grange is located . The Grays River Creamery is located approximately ¼ mile away from the new site along Hull Creek Road. Of particular note is the Grays River Covered Bridge, listed on the National Register of Historic Places, which is located about two miles from the project area. It is the last functioning covered bridge on a public road in the State of Washington.

The existing fire station dates from the 1960s and underwent major alteration in 1982. The proposed relocation site was previous pasture land. Approximate 2-7 feet of gravel fill was placed to provide a level pad. There are no other historic sites or archaeological properties known to exist within the footprint of this project.

Environmental Consequences

Alternative 1 - No Action

No construction or demolition activities would be funded by FEMA, and there would be no direct effects to any historic or archaeological properties. However, this alternative would result in a decrease in fire protection in the area (the Fire District's nearest other stations are at Skamokawa

11miles away and one at Raistakka Road five miles away). This could potentially have a minor negative effect on historic structures in the general area due to a reduction in responsive services.

Alternative 2 - Relocation of Fire Hall at New Site

Under this alternative, there would be no direct or indirect effect to any historic or archaeological properties, since all of the work actions will take place on disturbed ground and involve structures not eligible for inclusion on the National Register. The existing fire station does not have the significance required for inclusion on the National Register due to major alterations in 1982. Restoration of services at the new location will have a beneficial effect for nearby historic properties by maintaining the pre-disaster level of service.

SOCIOECONOMIC RESOURCES

ENVIRONMENTAL JUSTICE

Affected Environment

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires each federal agency, to the greatest extent practicable and permitted by law, to achieve environmental justice as part of its mission. Consistent with EO 12898, FEMA has established policies and responsibilities with the objective of preventing disproportionately high and adverse human or environmental effects on minority or low-income populations. NEPA is the principal mechanism to implement provisions of this EO.

As of 2008, Wahkiakum County had an estimated population of 4,133 people, slightly higher than the 2000 Census population of 3,824 (Wikipedia, 2010). The racial composition was 93.46% white, 0.26% black or African-American, 1.57% Native American, 0.47% Asian, 0.08% Pacific Islander, and the remainder from other races or two or more races.

The median incomes for households and families in the county were $39,444 and $47,604, respectively. Approximately 6% of families and 8% of the population were below the poverty line, including approximately 11% of those under age 18 and 2.7% of those individuals age 65 and over.

Environmental Consequences

Alternative 1 - No Action

Under Alternative 1, dispersal of District No. 3 vehicles and equipment would result in reduced levels of fire protection and EMS service to all residents within the District service area, regardless of racial status or income level. No disproportionately high and adverse impacts on minority or low-income populations would occur.

Alternative 2 - Relocation of Fire Hall at New Site

Relocation and construction of a new fire hall outside the floodplain would benefit all residents within the District No. 3 service area, including minority and low-income residents. No environmental justice-related impacts would occur.

PUBLIC SAFETY

Affected Environment

District No. 3 provides fire and EMS services to a resident population of approximately 1,200 people over a service area of approximately 40 square miles. The District operates three fire halls, one at Grays River, one at Skamokawa, and one at Raistakka Road. The existing fire hall at Grays River has served the Grays River community since the 1960s.

Environmental Consequences

Alternative 1 - No Action

This alternative has several adverse impacts on public safety. First, the existing structure, while "…safe for temporary occupancy…", places District #3 staff at risk because of the weakened structural integrity of the building. "If the piers experience significant shear forces again in the future, from a seismic, wind or flood event, they could collapse suddenly and catastrophically, leading to the complete collapse of the entire building."(Cascade Engineering, Inc., 2009). For reasons of safety, the District has abandoned the building and distributed vehicles and equipment to various locations (volunteer residences) about its service area.

Second, inadequate facilities and dispersed vehicles and equipment limit the capabilities of the District to respond to fire and emergency medical calls. Response times can increase and the levels of service experienced by District residents and businesses can decline. Further, in the event of a major widespread disaster that results in severe damage, the District could find itself unable to provide desired levels of service to District residents. District No. 3 would be forced to rely on other District No. 3 fire halls in Skamokawa and Raistakka Road, 11 and 5 miles distant from Grays River, respectively. These facilities might not be able to provide assistance in the midst of a widespread disaster event.

Third, the dispersed nature of sites where District vehicles and equipment are located is not conducive to regular maintenance. Further, out of necessity, some vehicles and equipment are being stored out of doors. Over time, maintenance of vehicles and equipment is likely to prove difficult and their condition may deteriorate.

Finally, the No Action Alternative would not be in compliance with the County's requirement to elevate the fire hall above the floodplain or to relocate the fire station to a site outside the floodplain (Wahkiakum County Department of Building and Planning, 2009).

Alternative 2 - Relocation of Fire Hall at New Site

Under this alternative, the existing fire hall would be demolished and replaced by a new fire hall at a new site on Hull Creek Road. Alternative 2 would meet the County's requirement to be outside the flood zone and would not be subject to recurrent flood events.

This alternative would provide an improved working environment for District #3 personnel and would provide additional space for storage and maintenance of vehicles and equipment. The larger site provides safer access to and from SR 4 via Hull Road and more space for parking. The new site eliminates the occasional congestion that can occur at the existing fire hall when District vehicles and volunteer vehicles move about the small site.

The capabilities of the District would be enhanced by the space provided for potential use as an Emergency Operations Center (EOC) and/or emergency shelter.

Overall, the new site and structure would provide a safe operating environment for District No. 3 personnel and would enhance the capabilities of the District to serve its residents.

7.0 CUMULATIVE IMPACTS

As defined by NEPA, cumulative impacts are those effects on the environment that result from the incremental effect of the action, when added to past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

The primary intent of this project is to restore the fire protection and EMS services that existed prior to the flood event. Other than the positive benefits resulting from a larger, more efficient fire hall, free from recurrent flooding, no other cumulative impacts on the community are likely. The Grays River community has had a stable population for many years and the new fire hall is not expected to encourage nor discourage potential residents from settling in the area.

The transfer of the existing fire hall site from public to private ownership is not expected to result in any cumulative impacts on the community. There are several other undeveloped parcels in the immediate vicinity of the fire hall site, some of which front on SR 4 and no uses for the fire hall site are anticipated for the foreseeable future.

8.0 MITIGATION MEASURES REQUIRED

The following mitigation measures are required as a condition of FEMA funding:

1. The Applicant is responsible for selecting, implementing, monitoring and maintaining Best Management Practices (BMPs) as required by Wahkiakum County Building and Planning along with BMPs recommended by the Washington Department of Ecology, to control erosion and sediment, reduce spills and pollution, and provide habitat protection. Erosion controls must be in place prior to construction. If fill is stored on site, the contractor would be required to cover it appropriately.

2. No construction material or debris shall be staged or disposed or in a wetland or floodplain, even temporarily. Excess and unsuitable excavated material shall not be sidecast into or placed upslope of wetland environments.

3. Should any cultural material (e.g. prehistoric stone tools or flaking, human remains, historic material caches) be encountered during construction, the Applicant must ensure that work is immediately stopped and the State and FEMA are contacted. Under Washington state law, it is a misdemeanor to impact an archaeological site on public or private land, and under state law, impacts to Native American graves and cultural items are a felony.

4. If the "project limits" (including clearing, excavation, temporary staging, construction, and access areas) extend into an area not previously identified for environmental, historic cultural, or archaeological consideration, work in these areas shall cease until such time as the project is re-submitted through the State and FEMA for re-evaluation for compliance with national environmental policies.

5. This review does not address all federal, state, and local requirements. Acceptance of federal funding requires the Applicant to comply with all federal, state, and local laws. Failure to obtain all appropriate federal, state, and local environmental permits and clearances may jeopardize federal funding.

6. The applicant shall test the existing Fire Station for presence of lead base paint prior to demolition. If present, then the applicant shall contact Wahkiakum County Public Health to determine the appropriate methods for removal and disposal.

9.0 PUBLIC INVOLVEMENT

Wahkiakum County Fire District #3 has provided opportunities for the involvement of its residents, businesses, and local government entities in the decision-making process through district commissioners' meetings, which are open to the public. The status, progress, and condition of the fire station have been a matter of public record.

There will be a 30-day public comment period for this EA. During this period, interested stakeholders, including local residents, are encouraged to comment. A public notice will be placed in the *Wahkiakum County Eagle* announcing the availability of the document. A copy of the EA will be available at Fire Station #3, 3751 SR 4W, Grays River, Washington 98647 and at the Wahkiakum County Building and Planning Department, 64 Main Street, Cathlamet, Washington 98612. The EA can also be viewed and downloaded from FEMA's website at: http://www.fema.gov/plan/ehp/envdocuments/index.shtm.

Comments may be sent to Mark Eberlein, FEMA Region X's Regional Environmental Officer:

Mail:

Mark Eberlein
FEMA Region X
130 228th Street SW
Bothell, Washington 98021
Fax: (425) 487-4613
E mail: mark.eberlein@dhs.gov

When the 30-day comment period ends, FEMA will review these comments, revise the draft EA as appropriate, and then publish a final EA. If no substantive comments are received, then FEMA intends to issue a Finding of No Significant Impact decision. That decision will also be posted on FEMA's website.

10.0 REFERENCES

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11.0 LIST OF PREPARERS

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APPENDICES

A – Site Information

B – Damage Inspection Report

C - Drawings, New Fire Hall (2)

D – Floodplain Maps, Correspondence

E – Cultural Resources Correspondence

F – Environmental Correspondence, Wahkiakum County